

**TECHNICAL REPORT
COVERSHEET**

Natural Resources Evaluation

Florida Department of Transportation

District Seven

40th Avenue NE over Placido Bayou

Limits of Project: From 12th Street NE to west of 13th Way NE

Pinellas County, Florida

Financial Management Number: 443600-1-32-01

ETDM Number: 14377

July 2019

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

Natural Resource Evaluation

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July 2019



City of St. Petersburg Project No.: 18032-110

Work Program Item Segment No.: 443600-1

ETDM No.: 14377

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Executive Summary

Project Description

This project will replace the existing 40th Avenue NE Bridge (No. 157154) in St. Petersburg, FL. The project limits extend from 12th Street NE to west of 13th Way NE, a distance of 0.15 miles. The existing 40th Avenue NE Bridge is a two-lane facility with a median auxiliary lane and sidewalks that tied into the roadway approaches with similar configurations. However, the bridge was reconfigured as part of a temporary emergency repair. The auxiliary lane in the median and one sidewalk are now closed. Vehicular traffic has been diverted to the south side of the bridge and pedestrian traffic has been diverted to the north side of the bridge. The new bridge will accommodate two lanes of traffic, bicycle lanes, and sidewalks.

Purpose

The purpose of this project is to address structural deficiencies of the existing 40th Avenue NE Bridge. The current bridge structure was constructed in 1961 and widened in 1990. It is considered structurally deficient by FDOT and therefore is scheduled for replacement.

Need

This project is needed because the existing 40th Avenue NE Bridge is considered structurally deficient by the FDOT. During the routine bridge inspection on July 31, 2017 and a subsequent follow-up field review on August 10, 2017, numerous areas of spalling with exposed prestressing strands with numerous broken wires and up to 100% section loss were found in Slab Units 4-5 thru 4-11. These findings resulted in a special load rating, closure of the damaged portions to traffic, and new weight limits on the bridge. The bridge sufficiency rating was downgraded to 21 from the rating of 72.7 in the 2015 routine bridge inspection. In addition to slab unit deterioration, the bridge piles have also deteriorated. They exhibit cracking or spalling and were all ranked Condition State 3 in the 2017 inspection.

This Natural Resource Evaluation (NRE) was conducted to identify wetland and surface waters, evaluate threatened and endangered species utilization, and to identify essential fish habitat (EFH), including verification of the presence or absence of seagrass and soft coral/sponge habitats. The project study area included the project limits along 40th Avenue NE from 12th Street NE east to west of 13th Way NE in the City of St. Petersburg and Pinellas County, Florida including an approximate 100-foot buffer from the centerline, a distance of 0.15 miles.

Wetland Evaluation

The project study area was evaluated for wetlands pursuant to Presidential Executive Order 11990 entitled Protection of Wetlands (May 1977), the U.S. Department of Transportation (USDOT) policy on the Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978, and the FDOT Project Development and Environment (PD&E) Manual Part 2, Chapter 9. Placido Bayou is a tidal water that is tributary to Tampa Bay approximately 0.84 miles to the east. For the purposes of this document, wetlands are defined as per Rule Chapter 62-340, F.A.C., Delineation of the Landward Extent of Wetlands and Surface Waters and Section 373.019 (27), Florida Statutes (F.S.); and the USACE Delineation Manual 1987 with the Regional Supplement to the USACE Delineation Manual, Atlantic and Gulf Coastal Plain Region, 2010. Surface waters are defined as open water bodies (principally, Placido Bayou).

The 40th Avenue NE Bridge spans Placido Bayou approximately 0.84 miles upstream of Tampa Bay. Tampa Bay continues south-southwest approximately 18 miles to the Gulf of Mexico.

Placido Bayou is tidally influenced. Estuarine habitats are present near the 40th Avenue NE Bridge and downstream into Tampa Bay. Two estuarine subtidal habitats (unconsolidated bottom; mud/sand) and one estuarine intertidal habitat (mangrove) were observed within the project study area. Mangrove habitat is present on the north and south sides of the 40th Avenue NE Bridge along the west bridge approach. Along the east bridge approach, mangroves occur only on the south. Mangrove compositions included red, white, and black. No impacts to mangrove habitat are anticipated.

Seawalls are present to the north and south of the 40th Avenue NE bridge abutments on both the east and west sides of the bridge. Hardened structures are present on all shorelines within the study area except for the bridge approaches. Shading, as well as dredge and fill impacts, would be anticipated within the project footprint to install bridge pilings within Placido Bayou and riprap along the east and west bridge abutments. The only fill within wetlands is for the pilings themselves and the riprap waterward of the first bent. The existing abutments are located in uplands and fronted with riprap. The first bent of the replacement bridge will be located approximately 8 feet waterward of the existing abutment. Best Management Practices will be implemented during construction to avoid impacts to water quality, fish, and wildlife.

Impacts from the bridge replacement and placement of riprap along the abutments total 0.048 acres of surface waters. On the east side of the bridge, riprap is placed from the upland down to elevation +0.34 feet in the surface water. On the west side, riprap is placed from upland down to elevation -0.24 feet in the surface water. The No-Build Alternative would result in slightly less impacts to wetlands or surface waters. A description of land use, dominant vegetation, soil types, and other pertinent remarks regarding these communities is provided in subsequent sections of this report.

If required, wetland impacts from construction will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344. Compensatory mitigation for this project will be accomplished through the use of mitigation banks and other mitigation options that satisfy state and federal requirements. Mitigation banking options include Tampa Bay Mitigation Bank, Nature Coast Mitigation Bank, and Mangrove Point Mitigation Bank.

All surface water impacts will be avoided and minimized to the greatest extent possible and limited to areas of previous disturbance and areas required to meet minimum safety requirements. Southwest Florida Water Management District (SWFWMD) has already issued an exemption for the 40th Avenue NE Bridge Replacement, and the US Army Corps of Engineers (USACE) has indicated the project likely qualifies for a Nationwide 3 (maintenance) permit (see ETDM Summary Report).

Protected Species and Habitat Evaluation

Listed species are afforded special protective status by both federal and state agencies. Federal protection is administered by the United States Department of the Interior, United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA-NMFS) pursuant to the Endangered Species Act of 1973 as amended. The USFWS administers the federal list of animal species (50 CFR 17) and plant species (50 CFR 23). Federal protection of marine species is the responsibility of NOAA-NMFS.

Through the Florida Fish and Wildlife Conservation Commission (FWC), the State of Florida affords special protection to animal species designated as State-Designated Threatened or State Species of Special Concern, pursuant to Chapter 68A-27, F.A.C. The State of Florida also protects and regulates plant species designated as endangered, threatened, or commercially exploited as identified on the Regulated Plant Index (5B-40.005, F.A.C., which is administered by the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry, pursuant to Chapter 5B-40, F.A.C.

The project study area was evaluated for the presence of state and federal protected wildlife and habitat suitable to support protected wildlife consistent with Part 2, Chapter 16 of the PD&E Manual. Scientists familiar with Florida's coastal species conducted wildlife surveys in order to document the presence or absence of state or federal protected wildlife. There were no protected wildlife species observed during field reviews; however, numerous species could occur or could potentially occur within the project study area.

Wildlife habitat observed within the project study area included mangrove and open water estuarine habitat of Placido Bayou. Species such as fish, marine reptiles, wading birds, and marine mammals utilize the tidal habitats within the project study area. The project also crosses estuarine waters that are considered core foraging habitat for the wood stork.

Federal protected wildlife with the potential to occur within the project study area includes fish (Gulf sturgeon, small-toothed sawfish), reptiles (sea turtles), birds (red knot, wood stork and piping plover), and mammals (West Indian manatee). The bald eagle may also utilize the project area on a transient basis. State-protected species known to utilize or have the potential to utilize habitat within the study area include several avian species (snowy plover, little blue heron, reddish egret, tricolored heron, American oystercatcher, roseate spoonbill, black skimmer, and least tern). Table ES-1 lists the species, protected status, and effect determination reached for the project. There is no designated critical habitat within the project study area.

Table ES-1 Protected Species Effect Determination

| Species | Protected Status | Effect Determination |
|--|------------------|-------------------------------|
| Flora | Federal | No Effect |
| Gulf Sturgeon <i>Acipenser Oxyrinchus desotoi</i> | FT | MANLAA |
| Small-toothed Sawfish <i>Pristis pectinata</i> | FE | MANLAA |
| Loggerhead Sea Turtle <i>Caretta caretta</i> | FT | MANLAA |
| Green Sea Turtle <i>Chelonia mydas</i> | FT | MANLAA |
| Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> | FE | MANLAA |
| Kemp's Ridley <i>Lepidochelys kempii</i> | FE | MANLAA |
| Red Knot <i>Calidris canutus rufa</i> | FT | MANLAA |
| Piping Plover <i>Charadrius melodus</i> | FT | MANLAA |
| Wood Stork <i>Mycteria americana</i> | FT | MANLAA |
| West Indian Manatee <i>Trichechus manatus</i> | FT | MANLAA |
| Short-tailed snake <i>Lampropeltis extenuate</i> | ST | No Adverse Effect Anticipated |
| Snowy Plover <i>Charadrius nivosus</i> | ST | No Adverse Effect Anticipated |
| Little Blue Heron <i>Egretta caerulea</i> | ST | No Adverse Effect Anticipated |
| Tricolored Heron <i>Egretta tricolor</i> | ST | No Adverse Effect Anticipated |
| Roseate Spoonbill <i>Platalea ajaja</i> | ST | No Adverse Effect Anticipated |
| Reddish Egret <i>Egretta rufescens</i> | ST | No Adverse Effect Anticipated |
| Black Skimmer <i>Rynchops niger</i> | ST | No Adverse Effect Anticipated |
| Least Tern <i>Sternula antillarum</i> | ST | No Adverse Effect Anticipated |
| American Oystercatcher <i>Rynchops niger</i> | ST | No Adverse Effect Anticipated |

FE – Federally Endangered

FT - Federally Threatened

ST – State Threatened

MANLAA - May Effect Not Likely to Adversely Effect

Essential Fish Habitat Assessment

An EFH Assessment was conducted to evaluate the proposed impacts associated with the proposed 40th Avenue NE Bridge replacement over the tidally connected waters of Placido Bayou.

This EFH Assessment is provided in accordance with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1976, as amended in 1996. The MSFCMA was enacted by the US Congress to protect marine fish stocks and their habitat, to prevent and stop overfishing, and to minimize by-catch. Section 302 of the MSFCMA established eight Fishery Management Councils (FMCs). The Gulf of Mexico Fishery Management Council (GMFMC) is the responsible fishery resource in federal waters within the Gulf of Mexico. The GMFMC oversees five (5) Gulf of Mexico eco-regions. Placido Bayou is within the GMFMC south Florida Eco-region #1.

The 40th Avenue NE Bridge spans Placido Bayou approximately 0.84 miles above the mouth of Tampa Bay. Estuarine habitats are present within Placido Bayou both upstream and downstream from the 40th Avenue NE Bridge. The project study area crosses two (2) EFH types, including estuarine subtidal habitat (i.e. unconsolidated bottom, sand/mud) and estuarine intertidal habitats (i.e. mangroves). Fish and crustaceans were observed. No seagrass or shellfish habitat was identified within the project study area.

Shoreline within the study area was predominantly hardened seawall with mangrove habitat along three sides of the bridge approaches. Riprap is present under the bridge and a small area of sandy beach occurs at the northeast corner of the bridge. Crabs, fish and shellfish were observed during field surveys. Bottom sediments consisted of unconsolidated sands and muds. Impacts to EFH and the populations of any of the 13 representative fish and shrimp species identified by the NMFS during the ETDM programming screen are anticipated to be minimal, as very little of their EFH will be impacted by the project.

Table ES-2 Species with EFH in Project Area and Corresponding Level of Effect

| Species | Habitat Type | Life Stage in Placido Bayou | Level of Effect |
|--|---|-----------------------------|-----------------|
| Pink Shrimp <i>Farfantepenaeus duorarum</i> | Sand bottom, seagrass beds | Juvenile, subadult, adult | Minimal |
| Red Drum <i>Scianops ocellatus</i> | Open water | Juvenile, subadult, adult | Minimal |
| Goliath Grouper <i>Epinephalus itagara</i> | Mangrove estuaries | Juvenile | Minimal |
| Dog Snapper <i>Lutjanus joci</i> | Hardbottom | juvenile | Minimal |
| Lane Snapper <i>Lutjanus synagris</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Yellowtail Snapper <i>Ocysurus chrysurus</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Cubera Snapper <i>Lutjanus cyanopterus</i> | Hardbottom | juvenile | Minimal |
| Mutton Snapper <i>Lutjanus analis</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Schoolmaster Snapper <i>Lutjanus apodis</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Gray Snapper <i>Lutjanus grisius</i> | Mangrove estuaries, seagrass beds | juvenile, adult | Minimal |
| Yellowmouth Grouper <i>Mycteroperca interstitialis</i> | Structure, nearshore and offshore waters, seagrass beds | juvenile | Minimal |
| Scamp <i>Mycteroperca phenat</i> | Structure, nearshore and offshore waters, seagrass beds | juvenile | Minimal |
| Gag Grouper <i>Mycteroperca microlepis</i> | Structure, nearshore and offshore waters, seagrass beds | juvenile | Minimal |

Section 1.0 Introduction

The City of St. Petersburg, FL is evaluating alternatives to replace the existing 40th Avenue NE Bridge over Placido Bayou from 12th Street NE to west of 13th Way NE, a distance of 0.15 miles (see **Figure 1-1**).

1.1 Project Description

This project will replace the existing 40th Avenue NE Bridge (No. 157154) in St. Petersburg, FL. The project limits extend from 12th St. NE to west of 13th Way NE, a distance of 0.15 miles. The existing 40th Avenue NE Bridge was a two-lane facility with a median auxiliary lane and sidewalks that tied into the roadway approaches with similar configurations. However, the bridge was reconfigured as part of a temporary emergency repair. The auxiliary lane in the median and one of the sidewalks are now closed. Vehicular traffic has been diverted to the south side of the bridge and pedestrian traffic has been diverted to the north side of the bridge. The new bridge will accommodate two lanes of traffic, bike lanes, and sidewalks

1.2 Purpose and Need

The purpose of this project is to address structural deficiencies of the existing 40th Avenue NE Bridge. The current bridge structure was constructed in 1961 and widened in 1990. It is considered structurally deficient by the FDOT and therefore is scheduled for replacement.

This project is needed due to the fact that the existing 40th Avenue NE Bridge is considered structurally deficient by the FDOT. During the routine bridge inspection on July 31, 2017 and subsequent field review on August 10, 2017, numerous areas of spalling with exposed prestressing strands with numerous broken wires and up to 100% section loss were found in Slab Units 4-5 thru 4-11. This resulted in a special load rating, closure of the damaged portions of the bridge to traffic, and new weight limits on the bridge. The bridge sufficiency rating was down-graded to a 21 from the rating of 72.7 in the 2015 routine bridge inspection. In addition to slab unit deterioration, the bridge piles also deteriorated. They are exhibiting cracking or spalling and were all ranked at Condition State 3 in the 2017 inspection.

1.3 Existing Facility and Proposed Improvements

40th Avenue NE in the vicinity of the project is a two-lane undivided urban collector in northeast St. Petersburg, FL (see **Figure 1-1**). The bridge transports approximately 18,000 vehicles per day. The posted speed limit is 35 miles per hour (mph). The existing two-lane bridge (No. 157154) is 336 feet long and approximately 58 feet wide. Vertical clearance is 8.5 feet with a horizontal clearance of 45 feet.

The proposed replacement bridge will also be two lanes, anticipated to transport approximately 18,000 cars per day. It will include two 11-foot travel lanes, 7-foot shoulder bike lane on either side, and 6.5-foot sidewalks on either side. Although the footprint is the same as the existing bridge, the profile has been changed to provide improved clearance both horizontally and vertically. The proposed clearances are 13.25 feet vertically and 56.5 feet horizontally. This will allow for improved navigation through the bridge for boaters. The channel location has shifted horizontally but will still maintain a depth exceeding 5.0 feet at Mean Low Water (MLW). The replacement bridge will include street lighting. The proposed typical section is shown in **Figure 1-2**.

1.3.1 No-Build Alternative

The No-Build Alternative assumes, with the exception of the improvements already planned and funded (ongoing repairs to slab units), existing conditions remain the same for the 40th Avenue NE Bridge within the project limits. Advantages associated with implementation of the No-Build Alternative include:

- > No new construction costs
- > No disruptions to existing land use during construction
- > No disruption to vehicular or boat traffic due to construction activities
- > No impacts to utilities
- > No environmental disruption of natural resources.

Disadvantages of the No Build Alternative include:

- > Short service life, then replacement, if needed
- > An undesirable functional obsolescence for the life of the structure
- > Continued safety concerns
- > Limited provisions for bicyclists or pedestrians
- > Reduced economic vitality
- > Increased delays for vehicles, pedestrians, and bicyclists

Despite the disadvantages associated with the No-Build Alternative, it will remain under consideration throughout the public involvement process.

1.3.2 Build Alternatives

Replacement of the existing 40th Avenue NE Bridge will restore safe traveling conditions for road users. The proposed build alternative will not involve widening for additional traffic capacity. However, it will reconfigure the lanes to allow for bicycle lanes and sidewalks. The proposed Build Alternative will accommodate two lanes of traffic, two shoulders/bike lanes, and two sidewalks. Advantages associated with implementation of the Build Alternative include:

- > A longer service life
- > Improved bicycle and pedestrian provisions
- > Increased economic vitality
- > Decreased delays for vehicles, pedestrians, and cyclists
- > Enhanced safety
- > A strengthened and more up-to-date design of a structurally deficient bridge

The disadvantages of the Build Alternative include:

- > New construction costs
- > Some disruption of vehicular traffic during construction
- > Disruption to pedestrian and bicycle traffic during construction
- > Disruption to existing land uses due to construction
- > Some disruption of boat traffic during construction
- > Environmental disruption of natural resources
- > Impacts to utilities



Figure 1-1 – Project Location Map

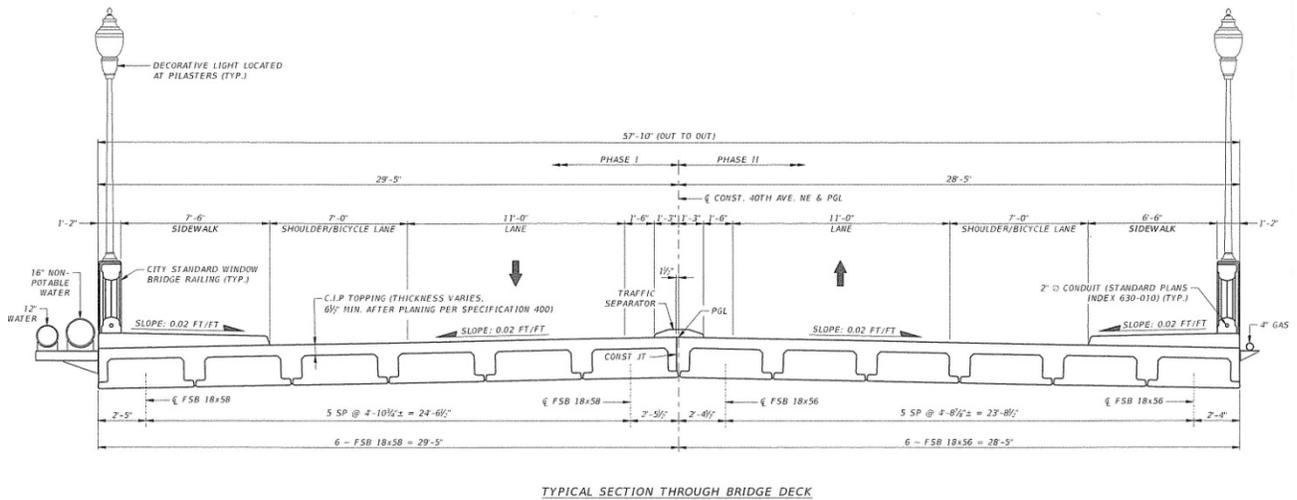


Figure 1-2 40th Avenue NE Bridge Proposed Typical Section

1.4 Purpose of Report

The purpose of this Natural Resource Evaluation (NRE) is to provide an environmental analysis of the proposed impacts of the project to protected species and their habitats, wetlands and other surface waters, and essential fisheries habitat.

Section 2.0 Existing Conditions

2.1 Introduction

The 40th Avenue NE Bridge spans Placido Bayou approximately 0.84 miles upstream of Tampa Bay. Placido Bayou is a salt water estuary both upstream and downstream from the bridge. Most of the Placido Bayou shoreline has been hardened with seawalls. Little natural shoreline, mangrove, marsh or mudflats remains in the vicinity of the bridge. The study area was surveyed to identify, quantify, and map existing conditions.

The project study area was evaluated for wetlands pursuant to Presidential Executive Order 11990 entitled Protection of Wetlands (May 1977) and the USDOT policy on the Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978. Pursuant to federal and state regulations regarding the protection of wetlands, projects must avoid and minimize wetland impacts to the fullest extent practicable. In accordance with this policy, the City of St. Petersburg characterized wetlands within the project study area that could be affected by the proposed bridge replacement. The project study area included the limits along 40th Avenue NE from 12th Street NE on the west to just west of 13th Way on the east. The study area extended approximately 100 feet from the centerline to the north and south.

The study included review of the literature as well as field studies. Field studies were intended to map existing wetlands and open water habitats. They were also intended to determine the potential for utilization of the site by threatened and endangered species. In addition, EFH was identified and noted. Special attention was paid to note seagrass and shellfish habitats.

The project study area includes two habitat types that can be considered EFH, mangroves and estuarine subtidal unconsolidated bottom sand/mud. A small sandy beach near the northeast corner of the bridge suggests there may be a small area of mudflats nearby. Various species of fish and crustaceans were observed along with some shellfish associated with the mangrove root system. No seagrass was observed within the study area. Per the 2016 SWFWMD Seagrass Mapping, the nearest seagrass habitats are approximately 460 feet south from the project site. SWFWMD did not map any shellfish or mudflats within 500 feet of the project study area.

2.2 Methodology

Database searches, literature reviews, and desktop analyses using geographic information system (GIS) data were conducted in conjunction with the field surveys. The desktop analyses referenced databases, maps, and shapefiles to identify existing wetland and upland communities within the project area (data sources listed below). Additional information was obtained from commenting agencies during the ETDM program screening process. Sources and databases included:

- > Aerial photographs, (scale variable) Google Earth 2019
- > NRCS Web Soil Survey for Pinellas County, FL
- > Florida Association of Environmental Soil Scientists, Hydric Soils of Florida Handbook, 4th ed., (Hurt et. al. 2007)
- > Florida Natural Areas Inventory Florida Conservation Lands (June 2014)
- > FDOT, Florida Land Use Cover, and Forms Classification System (FLUCFCS), 3rd ed., January 1999
- > SWFWMD, Seagrass Survey Data (2016)
- > SWFWMD, FLUCFCS GIS Database, (SWFWMD 2011);
- > USFWS, National Wetlands Inventory (NWI), Wetlands Online Mapper (January 2018); and

- > USFWS, Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et. al. 1979)

Habitat mapping and surveys were conducted July 17th and 31st, 2018; January 30th and 31st, 2019; and March 20th, 2019 by ecologists familiar with Florida's coastal vegetative communities, protected wildlife, estuaries, and seagrasses in order to delineate and map vegetation, evaluate estuarine and seagrass communities, and determine the likelihood of protected wildlife utilization (Section 4.0). Surveys were also conducted in January and March 2019 to evaluate EFH (Section 2.3.4). Pedestrian surveys were conducted along the bridge and shorelines of the approaches on both the east and west sides of the bridge. Considerable time was spent in the mangroves located along the bridge approaches. The area under the bridge was inspected on both the east and west sides of the bridge.

Habitats within the project study area were classified using the FLUCFCS, FDOT 1999 and the USFWS Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979). Mangrove limits were delineated in accordance with Chapter 62-340, F.A.C., Delineation of the Landward Extent of Wetlands and Surface Waters, criteria found within the Corps Wetlands Delineation Manual (USACE 1987) and 2008 Regional Supplement to the Corps Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (USACE 2010).

Field surveys were conducted to observe fishes that might be regulated by GMFMC or be prey for species regulated by GMFMC. Special attention was paid to observe the waterward edge of the mangroves. Efforts were made to identify seagrasses in the limited shallow water within the study area. The remainder of this report will discuss these findings.

2.3 Results

Based on site-specific data searches and field evaluations, a total of two (2) soil types, two (2) upland types and two (2) wetland and surface water habitat types were identified. The following subsections describe the soils, upland and wetland community types, and individual wetlands and surface waters that occur within the study area.

2.3.1 Soils

Based on the NRCS Web Soil Survey, the study area is comprised of two (2) soil types. Appendix A provides an aerial map depicting the boundaries of each soil type within the study area. The two soil types mapped are Waters of the Gulf of Mexico for Placido Bayou and Matlacha and St. Augustine Soils and Urban Land for the uplands. Matlacha and St. Augustine soils and urban land are somewhat poorly drained with a seasonal high water at a depth of 2 feet or more depending on the depth of fill and type of drainage features. Based on the development history of the area, it is likely these soils were dredged from the waters of Placido Bayou and placed behind seawalls to form the upland area that is now developed as a single-family residential area. The Gulf of Mexico soils underlie the waters of Placido Bayou.

2.3.2 Existing Land Use and Vegetative Cover

A total of two (2) upland and two (2) wetland habitat types were found within the study area. An aerial map depicting existing land uses, habitats, and individual land use descriptions are provided in Appendix B. Table 2-1 provides land use and habitat types, FLUCCS classifications, USFWS classifications (if applicable), and total acreage and percent coverage within the study area.

Upland communities comprise 4.37 acres (68.3 percent) of the project study area and generally include residential development and transportation. Wetland and surface water communities comprise 2.03 acres (31.7 percent) of the project study area and include bays, estuaries and mangrove swamps.

Table 2-1 Existing Land Uses within the 40th Avenue NE Project Study Area

| FLUCCS Classification ¹ | FLUCCS Description | USFWS ² Classification | Acreage | % of Study Area |
|------------------------------------|---------------------------|-----------------------------------|---------|-----------------|
| 130 | Residential, High Density | NA | 3.61 | 56.4 |
| 540 | Bays and Estuaries | E1UB2/3 | 1.53 | 23.9 |
| 612 | Mangrove Swamps | E2FO3N | 0.50 | 7.8 |
| 810 | Transportation | NA | 0.76 | 11.8 |
| Total Upland | | | 4.37 | 68.3 |
| Total Wetland | | | 2.03 | 31.7 |
| Total | | | 6.40 | 100.0 |

1: FDOT 1999

2: Cowardin et al. 1979

E1UB2/3: Estuarine, Subtidal, Unconsolidate Bottom, Sand/Mud

E2FO3N: Estuarine, intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded

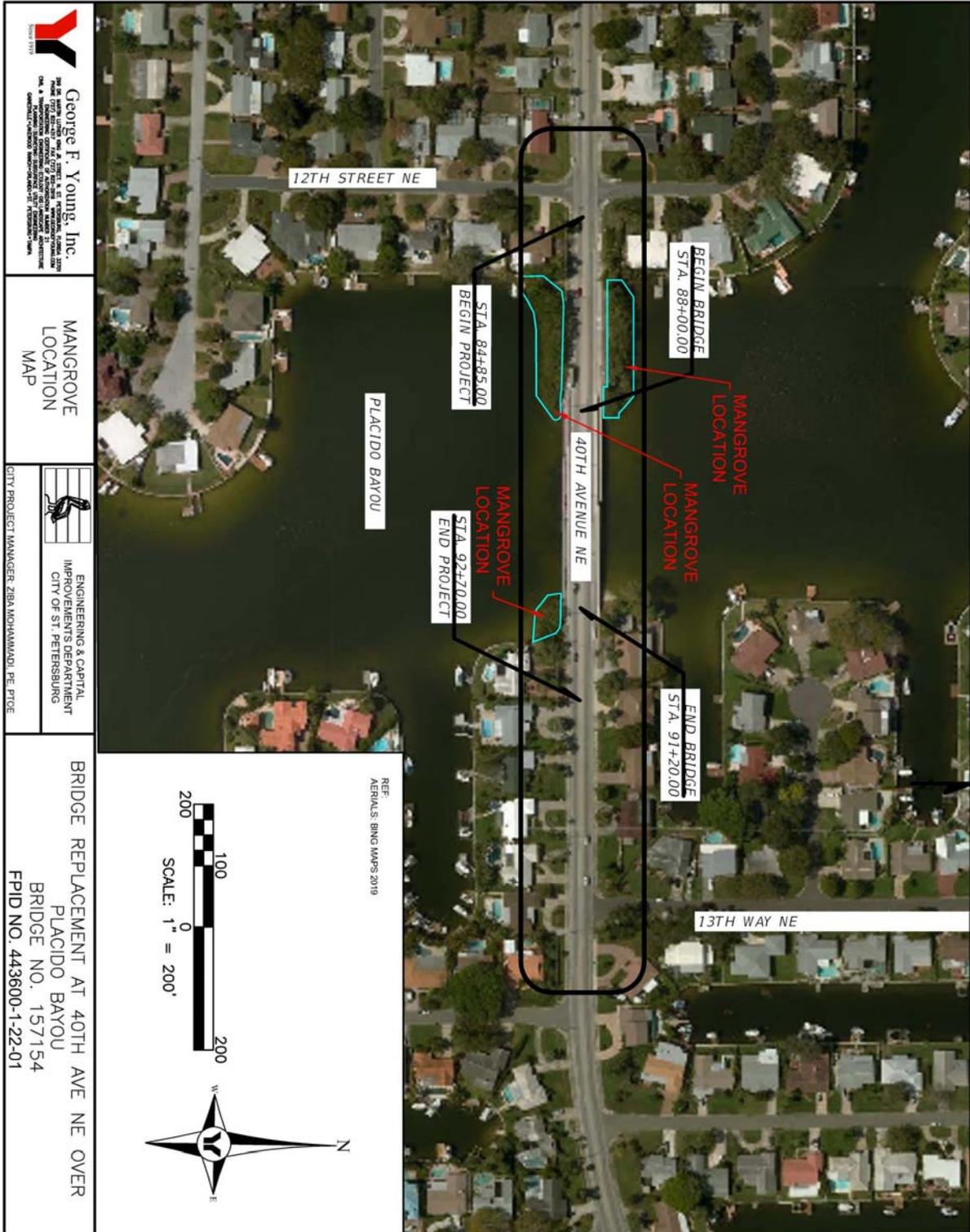


Figure 2-1 Delineated Mangrove Habitat Map

Section 3.0 Wetland Evaluation

3.1 Wetland and Surface Water Impacts

The project study area was evaluated for wetlands pursuant to Presidential Executive Order 11990 entitled Protection of Wetlands (May 1977) and USDOT policy on the Preservation of the Nation's Wetlands (USDOT Order 5660.1A), dated August 24, 1978. Placido Bayou is a tidal water that is tributary to Tampa Bay approximately 0.84 miles to the east.

The extent of wetlands was determined by utilizing the USACE Wetland Delineation Manual, 1987, along with the Regional Supplement, and Rule 62-340 F.A.C. The wetland limits were flagged in the field by ecologists familiar with the rules for wetland delineation.

The project area includes the footprint of the existing bridge, 336 feet long and 58 feet wide, and approaches on the east and west sides of the bridge. The project will end 150 feet east of the bridge on the east side and 315 feet west of the bridge on the west side. All approach work will be conducted in uplands.

Wetland boundary delineation and surveys were conducted and utilized in the design of the project. One estuarine subtidal habitat (unconsolidated bottom; sand/mud) and one estuarine intertidal habitat (mangrove) were observed. Appendix C provides an aerial map of each wetland and surface water area, and descriptions of all identified wetland and surface water habitats. There are no wetlands or surface waters designated as Outstanding Florida Waters within the project study area. Individual photographs of each wetland and surface water are provided in Appendix D.

Potential impacts to wetlands and surface waters were evaluated. Mangroves are present on the north and south side of the west bridge approach and on the south side of the east bridge approach. There is only a narrow area of un-vegetated intertidal surface water under the bridge. No mangrove impacts are anticipated. Surface water impacts by riprap are estimated at approximately 0.03 acre on the west side and 0.02 acre on the east side (Table 3-1). This surface water area is currently riprap and lacks vegetation (Appendix E).

The bridge will have a shading impact over the waters of Placido Bayou. The proposed replacement bridge is higher throughout its length than the existing bridge except for the easternmost 40 feet of the bridge. This shading impact is not anticipated to have an adverse impact to the waters of Placido Bayou that did not already occur with the existing bridge.

Table 3-1 Wetland and Surface Water Impacts

| ID | FLUCCS Description | FLUCCS Classification ¹ | USFWS Classification ² | Impacted Acres |
|-----------------------------------|--------------------|------------------------------------|-----------------------------------|----------------|
| WL 1 | Mangrove swamps | 612 | E2FO3N | 0.0 |
| WL 2 | Mangrove swamps | 612 | E2FO3N | 0.0 |
| WL 3 | Mangrove swamps | 612 | E2FO3N | 0.0 |
| Wetlands Subtotal | | | | 0.0 |
| SW 1 | Bays and Estuary | 540 | E1UB2/3L | 0.05 |
| Streams and Waterways | | | | 0.05 |
| Total Wetlands and Surface | | | | 0.05 |

1: FDOT 1999

2: Cowardin, et al. 1979

E1UB3L: Estuarine, Subtidal, Unconsolidation Bottom, Mud

E2FO3N: Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded

3.2 Uniform Mitigation Assessment Methodology (UMAM)

UMAM per Chapter 62-345, F.A.C., is a state and federal approved method used to assess wetlands in the State of Florida. UMAM was developed by FDEP and the water management districts to determine the amount of mitigation required to offset adverse impacts to wetlands. The methodology was designed to assess functions provided by wetlands, the amount those functions are reduced by a proposed impact, and the amount of mitigation necessary to offset the proposed functional losses. This method is also used to determine the degree of improvement in ecological value that will be created by proposed mitigation activities.

The UMAM assessment includes a Qualitative Characterization (Part 1) as well as a Quantitative Assessment and Scoring (Part 2). The Qualitative Assessment is a basic descriptor of the site being evaluated. The variables described include the following:

- > Significant nearby features
- > Water classifications
- > Assessment area size
- > Hydrology and relationship to contiguous off-site wetlands
- > Uniqueness of the assessment area
- > Functions of the assessment area
- > Wildlife utilization

The Quantitative Assessment provides a score of the assessment area in current conditions and “with impact” condition. The assessment scoring evaluates the following parameters:

- > Location and landscape support
- > Water environment
- > Vegetative community

3.3 Uniform Mitigation Assessment Methodology Results

For this project, a UMAM score was developed for the surface water affected by the proposed project (Appendix F). The UMAM analysis shows a functional loss of 0.014 units. Due to the insignificance of the proposed surface water impact, SWFWMD issued an exemption for the project with no mitigation required (Appendix G).

3.4 Mitigation

USACE indicated the project would likely be permitted as a Nationwide 3 (maintenance) with no need for wetland mitigation (see ETDM Summary Report). Should USACE determine wetland mitigation is necessary, impacts will be mitigated pursuant to Section 373.4137, F.S., to satisfy all requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. 1344.

The Tampa Bay Mitigation Bank service area includes the 40th Avenue NE Bridge Replacement project area. They have resource credits available. If compensatory mitigation is required by the USACE it would be necessary for the City to acquire mitigation credits from the Tampa Bay Mitigation Bank. The Tampa Bay Mitigation Bank was established before the development of the UMAM assessment. Therefore, the USACE determination of wetland mitigation needs are based on WRAP analysis rather than on UMAM analysis when utilizing the Tampa Bay Mitigation Bank.

Section 4.0 Protected Species

4.1 Introduction

Listed species are afforded special protective status by federal and state agencies. This special protection is federally administered by the United States Department of the Interior, USFWS, and the National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA-NMFS) pursuant to the Endangered Species Act of 1973 (as amended). The USFWS administers the federal list of animal species (50 CFR 17) and plant species (50 CFR 23). Federal protection of marine species is the responsibility of the NOAA-NMFS.

Administered by the FWC, the State of Florida affords special protection to animal species designated as State-designated Threatened or State Species of Special Concern, pursuant to Chapter 68A-27, F.A.C. The state also protects and regulates plant species designated as endangered, threatened or commercially exploited as identified on the Regulated Plant Index (5B-40.0055, F.A.C.), which is administered by FDACS, Division of Plant Industry, pursuant to Chapter 5B-40, F.A.C.

The following sections describe the methodology used to assess the potential for occurrence of protected species and to identify the effects that implementation of the proposed project may have on protected species.

4.2 Methodology

In order to determine federal- and state-listed protected plant and animal species that have the potential to occur within the study, available site-specific data was collected and evaluated.

Literature reviewed and databases searched as part of this evaluation included:

- > Aerial photographs (scale variable) Google Earth 2019
- > USDA, Natural Resource Conservation Service (NRCS), Web Soil Survey, Florida;
- > FDOT, FLUCCS Handbook, 3rd ed., January 1999
- > SWFWMD, FLUCCS GIS Database (2009)
- > SWFWMD, Seagrass Survey Data (2016)
- > USFWS, Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12, June 2007
- > FDACS, Florida Forest Service, Florida Statewide Endangered and Threatened Plant Conservation Program
- > FWC, Florida's Endangered Species and Threatened Species, December 2018
- > FWC, Manatee Synoptic Surveys (1991-2014)
- > FWC, Eagle Nest Locator website (<https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx>), April 2015
- > FWC, Wading Bird Rookeries website (http://ocean.floridamarine.org/TRGIS/Description_Layers_Terrestrial.htm), 1999
- > USFWS, 2010 Wood Stork Nesting Colonies Maps (<http://www.fws.gov/northflorida/woodstorks/wood-storks.htm>), March 2016
- > USFWS, Critical Habitat Portal website (<http://criticalhabitat.fws.gov/crithab/>)

Environmental scientists familiar with Florida's coastal species conducted wildlife surveys during January and March of 2019 to document the presence or absence of state or federal protected wildlife. Surveys were conducted along the shoreline via pedestrian transects and beneath the

bridge by boat, wading, and snorkeling. Wildlife occurrences and habitats were recorded.

Based on the evaluation of collected data, field reviews, agency comments during the programming screen, and database searches, the federal- and state-listed protected species discussed in Section 4.4 were considered as having the potential to occur within or adjacent to the study area. For a species to be considered potentially present, the study area must be within the species' distribution range. An effect determination was then made for each federal- and state-listed species based on an analysis of the potential impacts of the proposed alternatives to each species.

4.3 Agency Coordination

Agency coordination occurred during the ETDM process and will continue to occur during the PD&E and the permitting process. Concurrence letters from USFWS and NMFS will be obtained prior to federal permit issuance.

4.4 Results

Based on the project-specific information collected and field reviews conducted during January and March of 2019, a list of protected species with the potential to occur within the project study area was generated. This list includes a total of 17 federal or state protected species that have the potential for occurrence within the project study area. These protected species include two (2) fish, four (4) reptile, ten (10) bird, and one (1) mammal species.

The potential for occurrence for each species was designated as Low, Moderate, or High based on the type of habitat present within the study area, its relative condition, and if the species has been previously documented or was observed in the study area. A Low rating indicates that suitable habitat for that species was found within the study area, but the species has not been documented within the study area. A Moderate rating indicates that suitable habitat was found within the study area and the species has been documented within one (1) mile of the study area. A High rating indicates that suitable habitat exists within the study area and the species was observed during field reviews.

A determination of the anticipated project "effect" on protected species was made based on their probability of occurrence within the project study area, the proposed changes to their habitat quality, quantity and availability as a result of project construction, and how each species is anticipated to respond to anticipated habitat changes. Listed below are the "effect" determinations for each species.

4.4.1 Federal Species

4.4.1.1 Flora

According to FNAI data, no federal protected plant species were documented within one (1) mile of the project study area. Additionally, no protected plant species were observed during field reviews. Most protected plant species require specific vegetative communities. As no native vegetation communities occur within the project area other than mangroves, it is unlikely to provide suitable habitat for protected plant species. The majority of the project area has been cleared of native plant communities and planted in commercial landscape and sod, or developed in housing. The project will have "no effect" on any federally protected plant species.

4.4.1.2 Fish

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

The gulf sturgeon is a large fish reaching 6 to 8 feet long with a v-shaped snout and prominent bony scutes. This species is listed as threatened by the USFWS. This species spawns in rivers, travels into the open ocean for most of its adult life only returning to the rivers to spawn. NOAA fisheries notes the historic range of the species is from the Mississippi River to Tampa Bay with sporadic sightings outside the range. Today NOAA indicates the eastern edge of the range is likely the Suwanee River. They are often found in estuarine or gulf waters during cooler months. The species generally lives 20-25 years, but may live to over 50 years old. This species was not observed during field reviews and may no longer live in the Tampa Bay estuary. However, to minimize potential adverse impacts to the gulf sturgeon, the City of St. Petersburg will commit to implementing the USFWS-approved Construction Special Provisions: Gulf Sturgeon Protection Guidelines (revised September 2012) during the proposed bridge improvements (Appendix I). With these measures, it has been determined that the proposed project “may affect, but is not likely to adversely affect” the gulf sturgeon.

Smalltooth Sawfish (*Pristis pectinata*)

The smalltooth sawfish is a large, cartilaginous fish with a long, flattened, toothed rostrum that extends outward from its flattened head resembling a saw. They are related to skates and rays. This species is listed as endangered by the NMFS. They are found in shallow coastal waters and will sometimes travel into rivers. The study area contains some suitable habitat, but there have been no documented occurrences of this species within one (1) mile of the project area. This species was not observed during field reviews. To minimize potential adverse impacts to the smalltooth sawfish, the City of St. Petersburg will commit to implementing the NOAA-approved Sea Turtle and Smalltooth Sawfish Construction Conditions (revised March 2006) during the proposed bridge improvements (Appendix J). With these measures, it has been determined that the proposed project “may affect, but is not likely to adversely affect” the smalltooth sawfish.

4.4.1.3 Fauna

Reptiles

Sea Turtles: Loggerhead Sea Turtle (*Caretta caretta*), Green Sea Turtle (*Chelonia mydas*), Hawksbill Sea Turtle (*Eretmochelys imbricata*), and Kemp’s Ridley Sea Turtle (*Lepidochelys kempi*)

The loggerhead sea turtle and green sea turtle are listed as threatened by the USFWS/NMFS. The hawksbill sea turtle and Kemp’s Ridley sea turtle are listed as endangered by the USFWS/NMFS. While each species is distinct, sea turtles are discussed collectively since they occupy similar habitats and have similar nesting patterns. These are all large sea turtles weighing hundreds of pounds except for the Kemp’s Ridley that tops out at about 100 pounds. These sea turtles are all known to nest on sandy beaches of the Florida coastline including Pinellas County. These sea turtles will all occasionally utilize the waters of bays and inlets for swimming and foraging habitat. No sea turtle nesting habitat is present within the project area and there are no documented occurrences within one (1) mile of the project study area. Additionally, these species were not observed during field reviews. However, it is possible that sea turtles may utilize waters within and abutting the project study area.

To minimize potential adverse impacts to the loggerhead sea turtle, green sea turtle, hawksbill sea

turtle, and Kemp's Ridley sea turtle, the City of St. Petersburg will commit to implementing the NOAA-approved Sea Turtle and Smalltooth Sawfish Construction Conditions (revised March 2006) during the proposed bridge improvements (Appendix J). With these measures, it has been determined the proposed project "may affect, but is not likely to adversely affect" the loggerhead sea turtle, green sea turtle, hawksbill sea turtle, and Kemp's Ridley sea turtle.

Birds

Red Knot (*Calidris canutus rufa*)

The red knot is a medium-sized shorebird with distinctive red plumage feathers and a prominent stripe above the eye. This species is listed as threatened by the USFWS. They travel up to 9,300 miles annually from their breeding grounds. Recent population declines are believed to be due to reduced food stocks at some of their stopover locations during their migration, including Delaware Bay. Red knots winter in the Tampa Bay area and are commonly seen on Pinellas County beaches. They forage on tidal flats and beaches and nest in the arctic tundra. No red knots have been observed in the project study area and there is very little suitable foraging habitat except the small beach near the northeast corner of the bridge, and possibly a small area waterward of the mangroves during extreme low tides. There will be a small impact to the sandy beach due to the riprap, but no impacts to the areas waterward of the mangroves are proposed. Therefore, the project is unlikely to have a significant impact on the red knot and it has been determined the proposed project 'may affect, but is not likely to adversely affect' the red knot.

Piping Plover (*Charadrius melodus*)

The piping plover is a small brown and white bird with a short black bill, yellow legs, and pale under parts. It is listed as threatened by the USFWS. This species inhabits open, sandy beaches, tidal mudflats, and tidal sand flats along both coasts of Florida. The project area is within the USFWS Consultation Area for the piping plover. As noted for the red knot, there is limited habitat suitable for the piping plover and limited impacts to that habitat are proposed. It was not observed during field reviews. Based on this information, it has been determined that the proposed project 'may affect, but is not likely to adversely affect' the piping plover.

Wood Stork (*Mycteria americana*)

The wood stork is a large white wading bird that is listed as threatened by the USFWS. The wood stork is an opportunistic feeder and utilizes various habitat types including freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures, and ditches. It feeds by moving its bill through shallow water until it strikes something. They feed most effectively in water that is clear of vegetation and 15 inches or less in depth. While minimal foraging habitat for the wood stork is present within the project study area, no individuals were observed during field reviews.

According to the USFWS wood stork colony website, the study area is located within the 15-mile core foraging area (CFA) of one (1) active wood stork nesting colony at Alligator Lake in Clearwater (Figure 4-1). The primary concern for this species is loss of suitable foraging habitat. Due to the minimal amount of suboptimal foraging habitat within the project area and the minor nature of proposed impacts, it has been determined that the proposed project, 'may affect, but is not likely to adversely affect' the wood stork (Appendix H).

Mammals

West Indian Manatee (*Trichechus manatus*)

The West Indian manatee is a large, aquatic mammal that is listed as threatened by the USFWS. This species is found in marine, brackish, and freshwater systems in coastal and riverine areas throughout Florida. It feeds in the shallows on seagrasses and algae. Although there is no submerged vegetation within the project area, manatees have been observed in the vicinity of the 40th Avenue NE project. Following heavy rain, groups of manatees have been observed at the west end of the 45th Avenue N canal where freshwater discharges from a box culvert into the canal. There is no doubt the West Indian manatee occurs in Placido Bayou and FDEP has records of numerous sightings in the area. The limited fill proposed for the project is located at a higher elevation than where the manatee would typically be present. No fill is being placed below -0.24 feet NAVD on the west side or +0.34 feet on the east side.

The biggest concern for the West Indian manatee is the potential for harm due to conflicts with vessels conducting the work. To minimize potential adverse impacts, the City of St. Petersburg will commit to implementing the USFWS- approved Standard Manatee Conditions for In-Water Work (updated 2011) during the proposed bridge improvements (Appendix L). With the implementation of these measures, it has been determined the project “may affect, but is not likely to adversely affect” the West Indian manatee (Appendix I).

4.4.2 State Protected Species

4.4.1.4 Flora

According to FNAI data, no state-protected plant species were documented within one (1) mile of the project study area. Additionally, no protected plant species were observed during field reviews. The project study area contains minimal suitable habitat for protected plant species and is dominated by residential and local roads. The project has “no effect anticipated” on any state protected plant species.

4.4.1.5 Fauna

Birds

Snowy Plover (*Charadrius nivosus*)

The snowy plover is a small pale shorebird that is often overlooked as it blends in well with its surroundings. They forage on sandy beaches and mud flats and nest on sandy beaches making a small depression for their eggs. It is listed as threatened by the FWC. Within the project area there is little suitable habitat for the snowy plover, only the one small area of sandy beach at the northeast corner of the bridge. The project will not impact this area of sandy beach. No snowy plovers were observed during the field studies. Based on this information it has been determined that the project should have ‘no adverse effect anticipated’ on the snowy plover.

Wading Birds – Little Blue Heron (*Egretta caerulea*), Tricolored Heron (*Egretta tricolor*), and Roseate Spoonbill (*Platalea ajaja*)

The little blue heron, tricolored heron, and roseate spoonbill are listed as threatened by the FWC. While each species is distinct, wading birds are discussed collectively since they occupy similar habitats and have similar feeding patterns. These wading birds are similar in size and forage in

water depth less than 12 inches deep, both freshwater and saltwater. Generally, they forage in marshes, but they will sometimes forage in open water areas. Within the project area, foraging habitat would include the area waterward of the mangroves and off the sandy beach at the northeast corner of the bridge. Due to the sharp drop offs to depth exceeding -5.0 feet MLW, the depth is a narrow band 5-10 feet wide.

There is a bird rookery located 1.25 miles to the SSW of the 40th Avenue NE Bridge on an island in Coffee Pot Bayou. The little blue heron, and tricolored heron are known to nest in that rookery. Clearly these herons can easily access the project site. Suitable foraging habitat for these heron species is available at the site, but it is a limited area mostly waterward of the mangroves not covered by the bridge. The only potential forage area that may be impacted is under the bridge itself. This area has very little head room and is unlikely to be used by wading birds as they could not escape predators by flight. Even if they did utilize this area, the placement of riprap (impact area) is only down to elevation 0.34 on the east side of the bridge and elevation -0.24 on the west side of the bridge. With a tidal range at the site from Mean High Water (MHW) of 0.51 feet and MLW of -1.08 feet, the area of impact and potential foraging area is inundated approximately 20% of the time on the east side and 50% of the time on the west side. Based on this, the project has “no adverse effect anticipated” on the little blue heron, tricolored heron, or roseate spoonbill.

Reddish Egret (*Egretta rufescens*)

The reddish egret is a long-necked, long-legged bird with a dark and white morph appearance that is listed as threatened by the FWC. The dark morph is more common and has a grayish-brown body, with a reddish head and neck. The white morph has a mostly white body, head and neck. Both morphs have dark blue legs and feet and a pink bill with a black tip. Reddish egrets inhabit coastal areas, mainly on estuaries near mangroves and lagoons. They are tied more to saltwater habitat than most of the rest of the herons. They have a very active foraging habit and are often seen prancing with their wings out as if herding the baitfish they feed on. The steep shorelines in the project area (i.e. seawall) minimize potential foraging habitat. Suitable foraging habitat is available at the site, but is limited to the areas near the mangroves and the sandy beach not covered by the bridge. No impacts are proposed there. The only potential forage area that may be impacted is under the bridge itself. This area has very little head room and is unlikely to be used by wading birds as they could not escape predators by flight. Even if they did utilize this area the placement of riprap (impact area) is only down to elevation 0.34 on the east side and elevation -0.24 on the west side. With a tidal range at the site from MHW of 0.51 feet and MLW of -1.08 feet the area of impact and potential foraging area is inundated approximately 20% of the time on the east side and 50% of the time on the west side. Based on the minimal potential for impact, it has been determined the project has ‘no adverse effect anticipated’ on the reddish egret.

Black Skimmer (*Rynchops niger*)

The black skimmer is a black and white bird with a unique red and black bill with its lower mandible longer than the upper. This species is listed as threatened by the FWC. Black skimmers occur on sandy beaches, gravel or shell bars with sparse vegetation, or on mats of sea wrack in salt marshes. The black skimmer forages by flying near the surface of the water with its lower mandible in the water. Impacts may occur to tidal shorelines, but it is unlikely habitat used by the black skimmer. Although black skimmers tend to be close to the coast it is possible they will forage in the waters of Placido Bayou. Black skimmers nest in colonies generally on open sand beaches, but may use sandbars or shell mounds. The project proposes no impacts to the waters of Placido Bayou that the black skimmer could use for foraging, therefore it has been determined that the project has ‘no adverse effect anticipated’ on the black skimmer.

Least Tern (*Sternula antillarum*)

The least tern is the smallest of all terns with a black cap, short white eye-stripe, and a yellow bill with a black tip. This species is listed as threatened by the FWC. Least terns occur on seacoasts, beaches, bays, estuaries, lagoons, lakes, and rivers, and breed on sandy or gravelly beaches and banks. Impacts may occur to tidal shorelines, but it is unlikely that habitat used by the least tern for nesting, foraging or shelter will be impacted. This species has not been documented within one (1) mile of the project study area nor was it observed during field reviews. Based on this information, it has been determined the project has 'no adverse effect anticipated' on the least tern.

Reptiles

Short-Tailed Snake (*Stilosoma extenuatum*)

The short-tailed snake is an extremely slender spotted snake that burrows in habitats with relatively open canopies, especially in sandhill and scrub. There is no sandhill or scrub habitat within the project study area. This species has no federal or state protected status, but was identified in the GIS programming screen as a potential concern. It is possible the species occurs within the vicinity of the project site. However, it is unlikely the project would impact the species. As a burrowing snake, this species requires loose soils. The only soil disturbance proposed as part of the project is the bridge approaches on the east and west sides of the bridge. These areas consist of road-base type materials that are generally compacted and unsuitable for burrowing. Therefore, the proposed project will have 'no adverse effect anticipated' on the short-tailed snake.

4.4.3 Other Species of Concern

Birds

Bald Eagle (*Haliaeetus leucocephalus*)

The bald eagle has been de-listed by the USFWS, but it remains federally protected under the Bald and Golden Eagle Protection Act (BGEPA) in accordance with the 16 United States code 668 and the Migratory Bird Treaty Act of 1918. The bald eagle tends to utilize riparian areas near coastal areas or lake shorelines where it forages primarily for fish. The FWC/FWS developed a management plan that restricts activities within 660 feet of an active nest during the nesting season, from October 15th through May 15th. According to the FWC bald eagle nest database, the nearest nest is approximately 0.91 miles northwest of the project. If a bald eagle nest is identified within 660 feet of the project, the City of St. Petersburg will coordinate with the USFWS in accordance with the BGEPA. With the implementation of these measures, the proposed project “may affect, but is not likely to adversely affect” the bald eagle.

4.4.4 Critical Habitat

The study area was evaluated for the occurrence of Critical Habitat as defined by the Endangered Species Act of 1973 as amended by 50 CFR Part 424. The USFWS is the authority, as a federal agency, to protect critical habitat from destruction or adverse modification of the biological or physical constituent elements essential to the conservation of listed species. Critical habitat is defined as specific areas within the geographical area occupied by a species on which are found those physical or biological features essential to the conservation of the species and which defined may require special management considerations or protections. No designated critical habitat for any federal listed species occurs within the project study area.

Section 5.0 Essential Fish Habitat

The MSFCMA, as amended, (Magnuson-Stevens Act) requires the regional FMCs and Secretary of Commerce to describe and identify EFH for species under federal Fishery Management Plans (FMPs). EFH is defined in the MSFCMA as “those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.” The term “fish” includes finfish, crabs, shrimp, and lobsters. On April 23, 1997 [62 Federal Register (FR) 19723], the National Marine Fishery Service (NMFS) issued proposed regulations containing guidelines for the description and identification of EFH in FMPs, adverse impacts on EFH, and actions to conserve and enhance EFH. These rules were revised and finalized on January 22, 2002 (67 FR 2343). The regulations also provide a process for NMFS to coordinate and consult with federal and state agencies on activities that may adversely affect EFH. The purpose of the rule is to assist in describing and identifying EFH, minimize adverse effects on EFH, and identify other actions to conserve and enhance EFH. The purpose of the coordination and consultation provisions are to specify procedures for adequate consultation with NMFS on activities that may adversely affect EFH.

The proposed project is within GMFMC’s jurisdiction, which extends from the Texas/Mexico border to the Florida Keys and seaward to the limit of the Exclusive Economic Zone (200 nautical miles from the baseline of the territorial area). Estuarine habitats are present within Placido Bayou where the 40th Avenue NE Bridge is sited. Placido Bayou is within the GMFMC South Florida Eco-region #1. The intent of this EFH Assessment is to evaluate and describe how the proposed actions associated with the 40th Avenue NE Bridge project may affect EFH for species identified by the NMFS through the programming screen of the ETDM process within the project study area.

The GMFMC categorizes EFH into three habitat zones (i.e. estuarine, nearshore, offshore) and 12 habitat types including submerged aquatic vegetation, mangroves, drifting algae, emergent marsh, sand/shell, soft bottom, hard bottom, oyster, banks/shoals, reefs, shelf edge, and water column. Pursuant to Section 305(b)(2) of the MSFCMA, federal agencies must consult with NMFS regarding any of its actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect EFH. Measures recommended by the NMFS or any FMC to protect EFH are advisory, not proscriptive. An effective EFH consultation is vital to ensuring federal actions are consistent with the MSFCMA resource management goal.

Based on field surveys conducted in March and April 2019 the project study area crosses two EFH types, including estuary subtidal habitat and estuarine intertidal habitat (mangroves). One species managed by the GMFMC was observed in the project study area in addition to several species that could be utilized as prey by the managed species. However, none of them were observed in areas that would be impacted by the project.

The NMFS review through the ETDM process identified one crustacean species and 12 fish species that may have EFH affected by the proposed project. The crustacean species, pink shrimp, and two of the fish species, red drum and gray snapper, have multiple life stages that could be impacted. The list includes several grouper and snapper species that the project site would provide potential EFH for juveniles, but not adults.

Construction of the proposed project will result in dredge and fill impacts to 0.01 acre of open water designated as EFH. The project would require removal and replacement of existing pilings and installation of riprap along the bridge’s new east and west abutments. The new bridge abutments will be approximately 8 feet waterward of the existing abutment. Most of this new abutment will be

in upland; however, in a few locations it extends beyond the wetland line. The riprap will extend another 15 feet, which would impact the intertidal area of Placido Bayou which is currently a combination of riprap and sand bottom. Along the west side of the bridge, riprap extends to where the existing grade is -0.24 feet NAVD. Along the east side, the riprap extends only to existing elevation +0.34 feet NAVD. The impact to open water EFH is minimal. There is no impact proposed to the intertidal estuarine habitat (mangroves) EFH.

Impacts via shading would be considered under the drip line of the proposed structure. Since the bridge will be replaced largely within the footprint of the existing bridge structure, shading impacts would be de minimis and would include reduced shading due to the raising of the replacement bridge. However, because no Submerged Aquatic Vegetation (SAV) was observed in the study area, no impacts associated with SAVs are anticipated. The shading is not believed to have any significant impact to EFH.

In order to determine the potential impact of the project on EFH for each of the species identified by NMFS during the ETDM review, we looked at the specific project impacts and how they would be anticipated to affect the life history of each of the identified species. The results are presented below.

5.1 Results

The crustacean species, pink shrimp, and two fish species, red drum and gray snapper, have multiple life stages that could be impacted. The list includes a number of grouper and snapper species for which the project site would provide potential EFH for juveniles, but not adults.

Placido Bayou provides EFH for juvenile, subadult, and adult pink shrimp. This species will utilize the sand bottom of the open bay and seagrass beds. Seagrass beds are the preferred habitat for the species. The project is located approximately 460 feet from the nearest known seagrass bed. No seagrass beds are in the project study area, so no impacts are anticipated. The small area of riprap adjacent to the bridge abutments that will impact sand bottom estuary included in the pink shrimp EFH is anticipated to have minimal impact due to its small size and low importance of this habitat type to the pink shrimp. Most of this impact is above MHW, an area of the estuary not utilized by pink shrimp.

Placido Bayou also provides EFH for all life cycle phases, juvenile, subadult, and adult of the managed red drum. All three of these life stages utilize the open waters of Placido Bayou, which also provides habitat to prey species that are important food sources of the red drum (including pink shrimp, mullet, silversides). As the project is not anticipated to impact the open waters of Placido Bayou, it should not have any impact on the EFH for juvenile, subadult, or adult red drum.

Tampa Bay as a mangrove estuary is included in the EFH for the goliath grouper. Mangrove estuaries are important especially for juvenile goliath grouper as they reside, feed, and forage in these areas until they reach size of 4 feet and 50 pounds before moving to offshore reefs. The mangroves are also important habitat for many of the forage species the goliath grouper utilizes. The project proposes no impacts to the mangroves in the project area, therefore it is unlikely to have any substantial impact of the EFH of the juvenile goliath grouper.

In their ETDM review process, NMFS noted several snappers with EFH in Placido Bayou, primarily juvenile. The adults of these species are typically found on near shore or offshore reef/hard bottom areas. Snapper species include dog snapper, yellowtail snapper, cubera snapper, mutton snapper,

lane snapper, and schoolmaster snapper. With the exception of dog snapper and cubera snapper, snappers tend to utilize seagrass beds in the estuary. As the project will not impact seagrass beds, it should not have significant impact on the EFH for these species. Juvenile dog snapper and cubera snapper with less specific estuarine habitat need open waters of Placido Bayou. However, the project will not result in any impact or loss of these estuarine waters and should not have an impact on EFH for these species.

Gray snapper, also called mangrove snapper, have EFH for both juvenile and adult life cycle phases in the Placido Bayou estuary. Within the estuary gray snapper are most commonly associated with mangrove areas and seagrass beds. There are small areas of mangroves immediately adjacent to the project area. However, no impacts to the mangroves are proposed. Seagrasses are located approximately 460 feet to the south of the project area and should not be impacted. As the project is not anticipated to have any impact in those habitats most likely utilized by the gray snapper it is not anticipated to cause a loss in the EFH for the gray snapper.

The NMFS identified three managed grouper species, in addition to goliath grouper, whose juvenile life stages have EFH in Placido Bayou: yellowmouth grouper, scamp, and gag grouper. Although these species are generally found around structures in near shore and offshore waters during the adult life cycle, juveniles reside in estuarine waters often in association with seagrass beds. The proposed project is an estimated 460 feet from the nearest seagrass bed. No impacts are proposed or anticipated to these seagrasses. Further, the proposed project will not result in the loss of any estuarine habitat that provides EFH for these grouper species.

The proposed replacement of the 40th Avenue NE Bridge was designed in the footprint of the existing bridge. It is being raised at the navigation channel a few feet from the existing profile to provide 13.25 feet of vertical clearance for improved navigation. The proposed profile is higher than the existing except at the far eastern end of the bridge. Retaining walls are being used on the bridge approaches to avoid impacts to the mangroves along the northwest, southwest, and southeast sides of the bridge approaches. An insignificant area of riprap waterward of the first pile bents on the east and west sides of the 40th Avenue NE replacement bridge should not cause a loss of EFH in the vicinity of the project area. Due to the minimal impacts to EFH, no populations of any of the 13 species of concern to the NMFS are anticipated to be adversely impacted.

Table 5-1 Species with EFH in Project Area and Corresponding Level of Effect

| Species | Habitat Type | Life Stage in Placido Bayou | Level of Effect |
|--|---|-----------------------------|-----------------|
| Pink Shrimp <i>Farfantepenaeus duorarum</i> | Sand bottom, seagrass beds | Juvenile, subadult, adult | Minimal |
| Red Drum <i>Scianops ocellatus</i> | Open water | Juvenile, subadult, adult | Minimal |
| Goliath Grouper <i>Epinephalus itagara</i> | Mangrove estuaries | Juvenile | Minimal |
| Dog Snapper <i>Lutjanus joci</i> | Hardbottom | juvenile | Minimal |
| Lane Snapper <i>Lutjanus synagris</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Yellowtail Snapper <i>Ocysurus chrysurus</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Cubera Snapper <i>Lutjanus cyanopterus</i> | Hardbottom | juvenile | Minimal |
| Mutton Snapper <i>Lutjanus analis</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Schoolmaster Snapper <i>Lutjanus apodis</i> | Hardbottom, seagrass beds | juvenile | Minimal |
| Gray Snapper <i>Lutjanus grisius</i> | Mangrove estuaries, seagrass beds | juvenile, adult | Minimal |
| Yellowmouth Grouper <i>Mycteroperca interstitialus</i> | Structure, nearshore and offshore waters, seagrass beds | juvenile | Minimal |
| Scamp <i>Mycteroperca phenat</i> | Structure, nearshore and offshore waters, seagrass beds | juvenile | Minimal |
| Gag Grouper <i>Mycteroperca microlepis</i> | Structure, nearshore and offshore waters, seagrass beds | juvenile | Minimal |

Section 6.0 Permitting and Review Agencies

Both the USACE and SWFWMD regulate impacts to wetlands and other surface waters within the project area. Other agencies, including USFWS, NMFS, US Environmental Protection Agency (EPA), and FWC, review and comment on wetland permit applications. In addition, FDEP regulates stormwater discharges from construction sites and the US Coast Guard (USCG) is responsible for issuing permits for bridge construction/replacement in navigable waters. The complexity of the permitting process will depend upon the degree of impact to jurisdictional areas. The environmental permits that are anticipated to be required for the project are shown in Table 6-1.

Table 6-1 Required Environmental Permits

| Permit | Issuing Agency |
|--|-----------------------------------|
| Section 9 Bridge Permit | USCG |
| Section 404 | USACE |
| Environmental Resource Permit Exemption | SWFWMD |
| National Pollutant Discharge Elimination System (NPDES) | FDEP |
| 40 CFR NESHAP Notification | FDEP/ Pinellas County Air Quality |

Federal Permits

Section 9 Bridge Permit

Coordination has included communication with the USCG. A Section 9 USCG Bridge Permit will be required for the bridge over Placido Bayou since the waterway is subject to tidal influence and is considered a navigable water. The purpose of the permit is to preserve the public right of navigation, prevent interference with interstate and foreign commerce, and provide for the reasonable needs of navigation. The USCG reviewed the preliminary navigation report and approved a 12-foot vertical clearance and 40-foot horizontal clearance. The proposed project meets these minimum USCG vertical and horizontal clearance guidelines for this waterway.

Section 404

Due to impacts to waters of the US, the project will require coordination with USACE, Tampa Permits Section. The complexity of the permit application review process will depend on the degree of impact to jurisdictional waters. It is anticipated that impacts to tidal waters will be insignificant. USACE comments during the ETDM process suggested the project will be permitted with a Nationwide 3 Permit for Maintenance as the replacement bridge is in the same footprint as the existing bridge.

State Permits

Environmental Resource Permit (ERP) Exemption

The project is under the regulatory jurisdiction of SWFWMD and within the Tampa Bay and Coastal Areas Watershed. Due to the minimal wetland impacts, no addition of travel lanes, no increase in impervious surface areas and other factors, the project qualifies for an exemption from an ERP

under Rule 62-330.051(4)(e), F. A. C.

NPDES

40 CFR Part 122 prohibits point source discharges of stormwater to waters of the US without an NPDES permit. Under Florida's delegated authority to administer the NPDES program, construction sites that will result in greater than one acre of disturbance must file for and obtain either coverage under an appropriate generic permit contained in Chapter 62-621, F.A.C., or an individual permit issued pursuant to Chapter 62-620, F.A.C. A major component of the NPDES permit is the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP identifies potential sources of pollution that may reasonably be anticipated to affect the quality of stormwater discharges from the site and discusses good engineering practices (i.e. best management practices) that will be used to reduce the potential for pollutant discharges during construction.

Pinellas County (fka Water and Navigation Authority)

Pinellas County has authority over all dredge and fill and all structures in, on, or over the waters of Pinellas County. There are separate permits for dredge and fill and structures. It is likely the project will need a dredge and fill permit for part of the project and a dock permit for other parts of the project.

Pinellas County Air Quality

The City's contractor will be required to submit a NESHAP notification at least 10 days prior to the initiation of demolition. NESHAP regulations are discussed in detail in 40 CFR and a definition for structures is provided in 40 CFR 61.141. Although these are EPA regulations, they are often delegated to the states, in this case to FDEP. The state may further delegate to local governments and, in Pinellas County, FDEP has delegated jurisdiction to Pinellas County Air Quality. For the 40th Avenue NE Bridge the NESHAP notification should be sent to Pinellas County Air Quality.

Section 7.0 Conclusions

7.1 Wetland Evaluation

Any significant wetland impacts that result from construction of this project will be mitigated pursuant to Section 373.4137, F.S. to satisfy all mitigation requirements of Part IV Chapter 373, F.S. and 22 U.S.C. 1344. Compensatory mitigation will be completed through mitigation banks and any other mitigation options that satisfy state and federal requirements.

Wetlands and surface waters are present in the project study area. Mangroves were present along the bridge approaches on the northwest, southwest and th southeast sides of the bridge. There are no impacts to mangrove habitat anticipated as the construction limits do not extend directly into mangrove habitat. No seagrasses were identified within the project study area. Impacts resulting from the Build Alternative total 0 acres to wetlands and 0.048 acres of surface waters. The UMAM assessment resulted in 0.014 functional units of impacts. Reduced shading impacts would occur within Placido Bayou due to the increased height with the Build Alternative throughout most of the length of the replacement bridge. Tidally influenced waters would be minimally impacted by bridge piles and riprap along the abutments.

7.2 Protected Species and Habitat

The project area was evaluated for the presence of federal and/or state protected species and their habitat in accordance with Section 7 of the ESA and Part 2, Chapter 16 of the PD&E Manual and other regulations for the state. The effect determination for state and federal protected species are shown in Table 7-1. No critical habitat areas are located within the project study area.

Table 7-1 Protected Species Effect Determination

| Species | Protected Status | Effect Determination |
|---|------------------|-------------------------------|
| Flora | Federal | No Effect |
| Gulf Sturgeon <i>Acipenser Oxyrinchus desotoi</i> | FT | MANLAA |
| Small-toothed Sawfish <i>Pristis pectinata</i> | FE | MANLAA |
| Loggerhead Sea Turtle <i>Caretta caretta</i> | FT | MANLAA |
| Green Sea Turtle <i>Chelonia mydas</i> | FT | MANLAA |
| Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> | FE | MANLAA |
| Kemp's Ridley <i>Lepidochelys kempii</i> | FE | MANLAA |
| Red Knot <i>Calidris canutus rufa</i> | FT | MANLAA |
| Piping Plover <i>Charadrius melodus</i> | FT | MANLAA |
| Wood Stork <i>Mycteria americana</i> | FT | MANLAA |
| West Indian Manatee <i>Trichechus manatus</i> | FT | MANLAA |
| Short-tailed snake <i>Lampropeltis extenuate</i> | FLT | No Adverse Effect Anticipated |
| Snowy Plover <i>Charadrius nivosus</i> | FLT | No Adverse Effect Anticipated |
| Little Blue Heron <i>Egretta caerulea</i> | FLT | No Adverse Effect Anticipated |
| Tricolored Heron <i>Egretta tricolor</i> | FLT | No Adverse Effect Anticipated |
| Roseate Spoonbill <i>Platalea ajaja</i> | FLT | No Adverse Effect Anticipated |
| Reddish Egret <i>Egretta rufescens</i> | FLT | No Adverse Effect Anticipated |
| Black Skimmer <i>Rynchops niger</i> | FLT | No Adverse Effect Anticipated |
| Least Tern <i>Sternula antillarum</i> | FLT | No Adverse Effect Anticipated |

FE – Federally Endangered

FT - Federally Threatened

FLT – Florida Threatened

MANLAA - May Effect Not Likely to Adversely Effect

7.3 Essential Fish Habitat

An EFH Assessment was conducted to evaluate the proposed impacts on EFH associated with the proposed 40th Avenue NE Bridge replacement over the tidally connected waters of the Placido Bayou. The project study area crosses two (2) EFH types, including estuarine subtidal habitat (i.e. unconsolidated bottom, sand/mud) and estuarine intertidal habitats (i.e. mangroves). No seagrass or shellfish habitat areas were identified within the project study area.

Shoreline within the project study area included the mangrove habitat along the bridge approaches, a small sand beach at the northeast corner of the bridge, and seawalls. Crabs, fish and rays were observed during field surveys. The NMFS listed 13 species with potential EFH in Placido Bayou. The impact of the project on the EFH of those species is anticipated to be minimal for all species.

7.4 Implementation Measures

Based on the field and literature reviews outlined in this report, federal- and state-listed species have the potential to occur within the project study area. In order to assure the proposed project will not adversely impact these species, the City of St. Petersburg will adhere to the following:

- > If a bald eagle nest is observed within 660 feet of the project area, St. Petersburg will coordinate with the USFWS and FWC to secure necessary approvals prior to constructing the project.

7.5 Commitments

In order to assure adverse impacts to protected species or habitat will not occur within the project study area, the City of St. Petersburg will adhere to the following commitments and protection measures along with others that would be included in the project's environmental document:

- > No blasting is proposed for this project. If blasting is required, formal Section 7 Consultation will be initiated with the USFWS for the manatee and with the NMFS for swimming sea turtles and the smalltooth sawfish. A blast plan and Marine Wildlife Watch Plan (MWWP) would be submitted to USFWS, NMFS and FWC for their approval prior to beginning blasting activities.
- > The contractor will be required to use a ramp-up procedure during installation of piles. This procedure allows for a gradual increase in noise level to give sensitive species ample time to flee prior to initiation of full noise levels. This approach can also reduce the likelihood of any secondary or sub-lethal effects from sound impulses associated with pile driving.
- > Staging areas should be in disturbed areas to avoid impacts to fish and wildlife habitat and will be approved by SWFWMD, USACE, and the County during permitting.
- > The City of St. Petersburg will commit to watching for gulf sturgeon during construction and will inform the contractor of the most current Construction Special Conditions for the Protection of the Gulf Sturgeon (Appendix I) to minimize unintended impacts to the species.
- > The City will commit to watching for sea turtles and smalltooth sawfish during construction and will inform the contractor of the most current sea turtle and Smalltooth Sawfish Construction Conditions (Appendix J) to minimize unintended impacts to these species.
- > The City will commit to implementing a MWWP, which includes Standard Manatee Conditions for In-Water Work (Appendix K). St. Petersburg will require the construction contractor to abide by all protection conditions during construction.

Section 8.0 References

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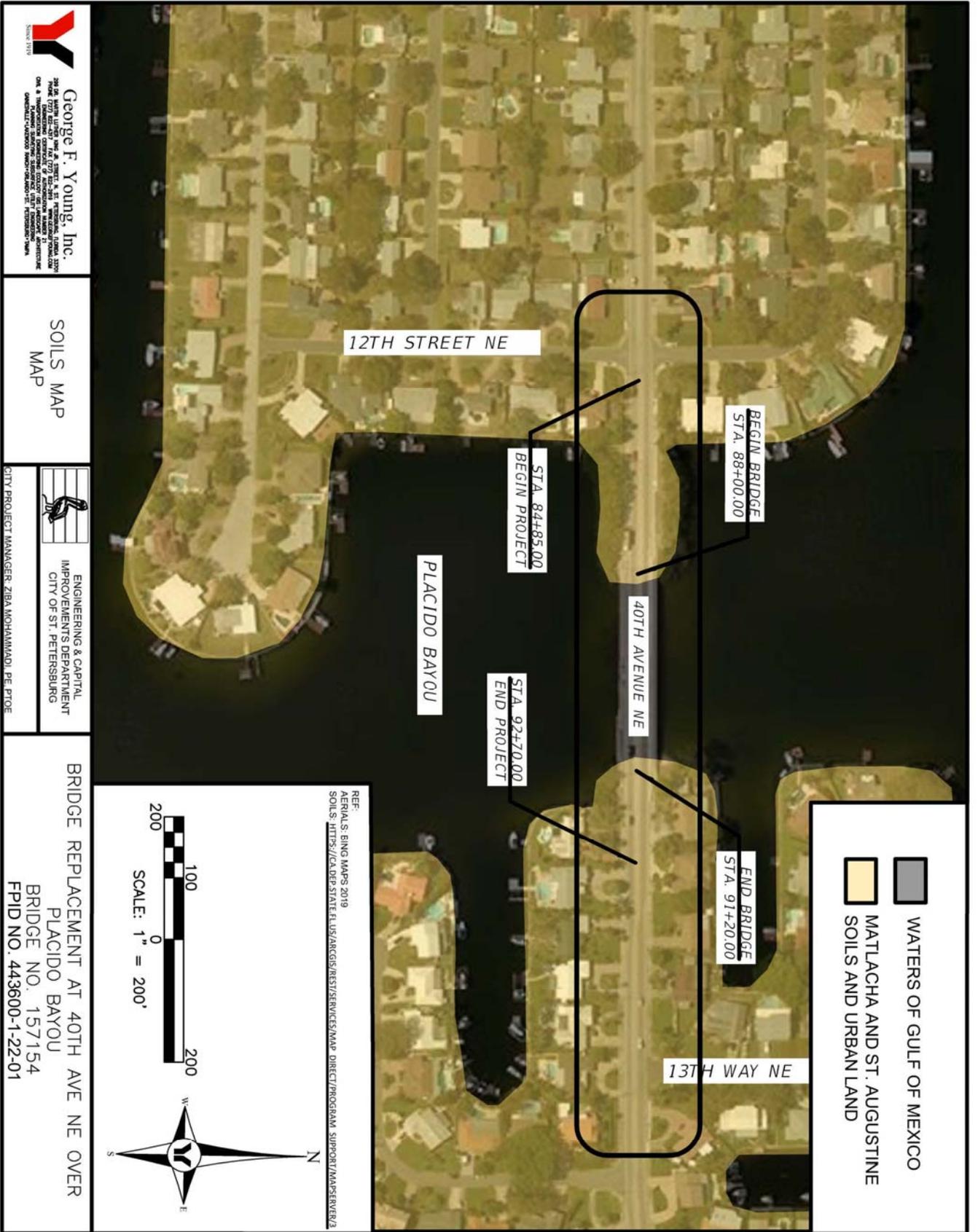
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40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

A

SOILS MAP AND DESCRIPTIONS



- WATERS OF GULF OF MEXICO
- MATLACHA AND ST. AUGUSTINE SOILS AND URBAN LAND

BEGIN BRIDGE
STA. 88+00.00

END BRIDGE
STA. 91+20.00

STA. 84+85.00
BEGIN PROJECT

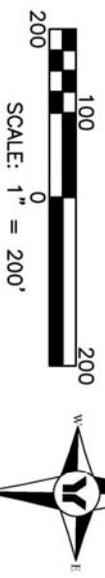
STA. 92+70.00
END PROJECT

12TH STREET NE

PLACIDO BAYOU

40TH AVENUE NE

13TH WAY NE



REF:
AERIALS: BING MAPS 2019
SOILS: [HTTPS://CA.DEP.STATE.IL.US/ARGIS/REST/SERVICES/MAP_DIRECT/PROGRAM_SUPPORT/MAPEXPERIENCE/](https://ca.dep.state.il.us/ARGIS/REST/SERVICES/MAP_DIRECT/PROGRAM_SUPPORT/MAPEXPERIENCE/)



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SOILS MAP
MAP



ENGINEERING & CAPITAL
IMPROVEMENTS DEPARTMENT
CITY OF ST. PETERSBURG

BRIDGE REPLACEMENT AT 40TH AVE NE OVER
PLACIDO BAYOU
BRIDGE NO. 157154
FPID NO. 443600-1-22-01

CITY PROJECT MANAGER: ZIBA MOHAMMADI, PE, PTOE

Pinellas County Soils

16 Matlacha and St. Augustine Soils and Urban Land

This soil is somewhat poorly drained with a seasonal high water table at 20 to 40 inches below ground depending on how much fill has been placed over historic ground elevation. Most of the areas of this soil have been developed. This soil has up to 15% shell and is often indicative of dredge and fill operations. This soil occupies 4.60 acres of the project study area (72%).

100 Gulf of Mexico

The SCS provides little information on this soil type other than it is typically cover with tidal waters the majority of the time. No information is provided about water table, permeability or other characteristic of the soil itself. It is anticipated that this soil would provide habitat for a variety of benthic invertebrates including polychaetes, molluscs, crustaceans, and others. This mapped soil type occupies 1.8 acres of the study site (28%)

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

B

LAND USE MAP AND
DESCRIPTIONS



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FLUCCS MAP

ENGINEERING & CAPITAL
 IMPROVEMENTS DEPARTMENT
 CITY OF ST. PETERSBURG

BRIDGE REPLACEMENT AT 40TH AVE NE OVER
 PLACIDO BAYOU
 BRIDGE NO. 157154
 FPID NO. 443600-1-22-01

REF: AERIAL S. BING MAPS 2018
 FLUCCS CODES: [HTTPS://WWW.SWFWM.D.STATE.FL.US/](https://www.swfwmd.state.fl.us/)

LAND USE:
 1300: RESIDENTIAL, HIGH DENSITY
 5400: RESIDENTIAL, MEDIUM DENSITY
 1800: RETAIL & ESTABLISHMENTS
 8100: TRANSPORTATION



Upland Habitats and Land Uses

FLUCFCS: 130 (Residential, High Density)

The high density residential land use classification includes areas with greater than five (5) dwelling units per acre. This land use is found in most of the area either end of the bridge. These lands have been cleared of native vegetative communities which have been replaced with landscaping and manicured yards. High density residential areas comprise 3.61 acres (56.4 percent) of the project study area.

FLUCFCS: 810 (Transportation)

The transportation land use classification includes facilities that are used for the movement of people and goods. The transportation category includes rail-oriented facilities, airport facilities, parking lots, docks and shipyards, and roads and highways. This land use is located throughout the center of the project area including 40th Avenue NE to the west of the bridge. It is unclear why the roadway to the east of the bridge is not also mapped as transportation. Transportation comprises 0.76 acre (11.8 percent) of the project study area based on the SWFWMD mapping.

Wetland and Surface Water Habitats

FLUCFCS: 540 (Bays and Estuaries)

USFWS: E1UB3L (Estuarine, Subtidal, Unconsolidated Bottom, SandMud)

Bays and estuaries are inlet or arms of the sea that extend into land. In this case Placido Bayou is essentially a bay off of Tampa Bay. Generally bays and estuaries are tidally influenced and have a salinity that is less than that of seawater, but not freshwater. Bays and estuaries are often diverse environments providing for a number of subhabitats within the bay and estuarine areas.

These areas are often important for the juvenile stages of certain fish and invertebrate species. Often only a portion of a species life cycle is spent in the bay and estuarine habitat. The waters of Placido Bayou under the bridge and to the north and south of the existing bridge are all classified as Bay and Estuary. Bays and estuaries comprise 1.53 acres (23.9%) of the project study area based on the SWFWMD mapping.

FLUCFCS: 612 (Mangroves)

USFWS: E2FO3N (Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded)

This wetland category is a coastal hardwood community composed of red, white and/or black mangrove which is pure or predominant. The major species associated include white mangrove, buttonwood, cabbage palm, and sea grape. Mangrove swamps are located immediately northwest, southwest, and southeast of the bridge along the edges of the bridge approaches. Mangrove composition includes predominantly red mangroves (*Rhizophora mangle*), but white mangroves (*Laguncularia racemosa*), and black mangroves (*Avicennia germinans*) were also present. Barnacles (*Balanus* sp.), oysters (*Crassostrea virginica*), and other invertebrates were observed on the waterward most prop roots of the red mangroves. No nesting birds were observed within the mangroves. Mangrove swamps comprise 0.50 acres (7.8 percent) of the project study area.

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

C

INDIVIDUAL WETLANDS AND
SURFACE WATERS MAP, TABLE,
AND DESCRIPTIONS



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 SPECIALTY SERVICES: ARCHITECTURE, INTERIOR DESIGN, PLANNING

WETLAND MAP

ENGINEERING & CAPITAL IMPROVEMENTS DEPARTMENT
 CITY OF ST. PETERSBURG

BRIDGE REPLACEMENT AT 40TH AVE NE OVER PLACIDO BAYOU
 BRIDGE NO. 157154
 FPID NO. 443600-1-22-01

REF: AERIALS: BING MAPS 2019
 SEA GRASS DATA: [HTTPS://WWW.SWPFMD.STATE.FL.US/](https://www.swpfmd.state.fl.us/)

SCALE: 1" = 200'

CITY PROJECT MANAGER: ZIBA MOHAMMADI, PE, PTOE

**Individual Wetlands and Surface Waters within the 40th Avenue NE
Bridge Replacement Study Area**

| ID | FLUCFCS Description | FLUCFCS Classification¹ | USFWS Classification² | Acres within |
|-----------------------------------|----------------------------|---|---|---------------------|
| WL 1 | Mangrove swamps | 612 | E2FO3N | 0.02 |
| WL 2 | Mangrove swamps | 612 | E2FO3N | 0.03 |
| WL 3 | Mangrove swamps | 612 | E2FO3N | 0.03 |
| Wetlands Subtotal | | | | 0.08 |
| SW 1 | Bays and Estuary | 540 | E1UB2/3L | 2.87 |
| Streams and Waterways | | | | 2.87 |
| Total Wetlands and Surface | | | | 2.95 |

¹FDOT. 1999.

²Cowardin, et al. 1979

E1UB3L: Estuarine, Subtidal, Unconsolidation Bottom, Mud

E2FO3N: Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded

Individual Wetlands

Wetland 1

FLUCFCS: 612 – Mangrove Swamps

E2FO3N (Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded)

Wetland 1 (WL 1) is a mangrove swamp located immediately south of the east bridge approach for the 40th Avenue NE bridge. WL 1 is dominated by red mangrove (*Rhizophora mangle*) with white mangroves (*Laguncularia racemose*), black mangroves (*Avicennia germinans*). A minimal amount and Brazilian pepper (*Schinus terebinthifolia*) interspersed within the mangroves. A total of 0.02 acres of this wetland is found within the project study area.

Wetland 2

FLUCFCS: 612 – Mangrove Swamps

E2FO3N (Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded)

Wetland 2 (WL 2) is a mangrove swamp located immediately south of the western approach to the 40th Avenue NE bridge. WL 2 is dominated by red mangrove (*Rhizophora mangle*) with white mangrove (*Laguncularia racemose*), and black mangrove (*Avicennia germinans*). It is relatively free of Brazilian pepper (*Schinus terebinthifolia*). A total of 0.03 acres of this wetland is found within the project study area.

Wetland 03

FLUCFCS: 612 – Mangrove Swamps

USFWS: E2FO3N (Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Regularly Flooded)

Wetland 03 (WL 03) is a mangrove swamp located immediately northwest of the Maydell Drive Bridge along the edge of the Palm River. WL 03 is dominated by red mangrove (*Rhizophora mangle*) with white mangrove (*Laguncularia racemose*), black mangrove (*Avicennia germinans*) and Brazilian pepper (*Schinus terebinthifolia*) interspersed within the red mangroves. A total of 0.03 acres of this wetland is found within the study area.

Individual Surface Waters

Surface Water 1

FLUCFCS: 540 – Bays and Estuaries

USFWS: E1UB3L (Estuarine, Subtidal, Unconsolidated Bottom, Mud)

Surface Water 1 (SW 1) is the Placido Bayou, an estuarine that runs through the project area and surrounds much of the project study area. A total of 2.87 acres of this surface water is found in the project area.

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

D

INDIVIDUAL PHOTOGRAPHS OF
WETLANDS AND SURFACE WATERS



Wetland WL 1 Facing southwest.
FLUCCS 612 Mangrove Forest
USFWS Estuarine, Intertidal, Forested, Broadleaf, Regularly Flooded



Wetland WL 2 facing southwest.
FLUCCS 612 Mangrove Forest
USFWS Estuarine, Intertidal, Forested, Broadleaf, Regularly Flooded



Wetland WL 3 facing northwest.
FLUCCS 612 Mangrove Forest
USFWS Estuarine, Intertidal, Forested, Broadleaf, Regularly Flooded



Surface Water SW 1 facing southwest.
FLUCCS 540 Bays and Estuaries
USFWS Estuarine, Subtidal, Unconsolidated Bottom, Sand/Mud



Under east abutment looking north

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

E

PHOTOGRAPH OF SURFACE
WATER IMPACT AREA



Figure E1 - Surface water area where 1st pile bent and rip rap will be placed on the east side of the bridge.



Figure E2 – Proposed piles in surface water will be located under the footprint of the existing bridge similar to where existing piles are located. Existing condition - six pile bents with 10-14Inch piles. Proposed condition – five pile bents with 6-24 inch piles.

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

F

UMAM DATA SHEETS

**PART | - Qualitative Description
(See Section 62-345.400, F.A.C.)**

| | | | | | |
|---|---------------------------------------|--|--|---|-------------------------------------|
| Site/Project Name 40th Avenue NE Bridge Replacement | | Application Number | | Assessment Area Name or Number Placido Bayou | |
| FLUCCs code 540 | | Further classification (optional) E1UB2/3 | | Impact or Mitigation Site? Impact | Assessment Area Size 0.048 acres |
| Basin/Watershed Name/Number Tampa Bay | Affected Waterbody (Class) Class 3 | | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) NA | | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Placido Bayou is a tidal water body connected to Tampa Bay | | | | | |
| Assessment area description The assessment area is an intertidal area with soft bottom benthic community and scattered riprap. It lacks any vegetation due to its location under the existing bridge | | | | | |
| Significant nearby features A few small areas on mangrove fringe nearby, north and south on the west side of the bridge, south only on the east side of the bridge | | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Relatively unique as most shoreline in the area is seawalled | | |
| Functions Provides surface water storage, some soft bottom benthic intertidal habitat. | | | Mitigation for previous permit/other historic use NA | | |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably anticipated to be found) Intertidal invertebrates | | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) NA | | |
| Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): No wildlife utilization was observed in the impact area | | | | | |
| Additional relevant factors: | | | | | |
| Assessment conducted by: GJC | | | Assessment date(s): 29-May-19 | | |

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

| | | |
|--|---------------------------------|---|
| Site/Project Name 40th Avenue NE Bridge Replacement | Application Number | Assessment Area Name or Number Placido Bayou |
| Impact or Mitigation Impact | Assessment conducted by: GJC | Assessment date: 29-May-19 |

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

| | |
|---|---|
| .500(6)(a) Location and Landscape Support w/o pres or current 2 with 0 | Area is surrounded by existing development, cover by a bridge, unvegetated. |
| .500(6)(b) Water Environment (n/a for uplands) w/o pres or current 5 with 0 | Intertidal hydration normal |
| .500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current 2 with 0 | No vegetation |

| |
|---|
| Score = sum of above scores/30 (if uplands, divide by 20) current or w/o pres 0.3 with 0 |
|---|

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

| |
|--|
| For impact assessment areas delta X acres = 0.014 |
|--|

| |
|--------------------------------|
| Delta = (with-current) -0.3 |
|--------------------------------|

| |
|--|
| Time lag (t-factor) = Risk factor = |
|--|

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

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

G

ERP EXEMPTION



Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899

(352) 796-7211 or 1-800-423-1476 (FL only)

TDD only: 1-800-231-6103 (FL only)

On the Internet at WaterMatters.org

Bartow Service Office

170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Sarasota Service Office

6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Service Office

7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

April 09, 2019

City of St. Petersburg
Attn: Bresh Prayman
Post Office Box 2842
St. Petersburg, FL 33731

Subject: **Project Evaluation - Project Exempt**

Project Name: Bridge Improvements at 40th Ave NE Over
Placido Bayou

File Number: 780203

County: Pinellas

Sec/Twp/Rge: S5/T31S/R17E Reference: Rule 62-330,

Florida Administrative Code (F.A.C.)

Dear Mr. Prayman:

The District has reviewed the information you submitted for the project referenced above and has determined that an Environmental Resource Permit (ERP) **will not be required** for the replacement of an existing bridge. The proposed bridge will be built in the same location as the existing bridge and the project will not result in new surface water impacts. A portion of the existing effluent filtration system permitted and constructed under MSSW Nos. 40001976.000/001 is being replaced to facilitate the bridge replacement. [Rule 62-330.051(4)(e), F.A.C.]

The information received by the District will be kept on file to support the District's determination regarding your application. This information is available for viewing or downloading through the District's Application and Permit Search Tools located at www.WaterMatters.org/permits.

The District's determination that your project does not require an ERP is only applicable pursuant to the statutes and rules in effect at the time the information was submitted and may not be valid in the event subsequent changes occur in the applicable rules and statutes. Additionally, this notification does not mean that the District has determined that your project is permanently exempt from permitting requirements. Any subsequent change you make in the project's operation may necessitate further evaluation or permitting by the District. Therefore, you are advised to contact the District before beginning the project and before beginning any activity which is not specifically described in your submittal. Your timely pursuit of this activity is encouraged to avoid any potential rule changes that could effect your request.

This letter constitutes notice of Intended Agency Action of the project referenced above. The District's action in this matter only becomes closed to future legal challenges from members of the public if such persons have been properly notified of the District's action and no person objects to the District's action within the prescribed period of time following the notification. The District does not publish notices of agency action. If you wish to limit the time within which a person who does not receive actual written notice from the District may request an administrative hearing regarding this action, you are strongly encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Publishing

notice of agency action will close the window for filing a petition for hearing. Legal requirements and instructions for publishing notice of agency action, as well as a noticing form that can be used is available from the District's website at www.WaterMatters.org/permits/noticing. If you publish notice of agency action, a copy of the affidavit of publishing provided by the newspaper should be sent to the Regulation Division at the District Service Office that services this permit or other agency action, for retention in the File of Record for this agency action.

If you have questions regarding this matter, please contact Louis Nash in the Tampa Service Office, extension 2168. Please reference the Project Name and Inquiry/Permit Number in future communications concerning this project.

Sincerely,

Michelle K. Hopkins, P.E.
Bureau Chief
Environmental Resource Permit Bureau
Regulation Division

Enclosures: Notice of Rights cc:

Cardno

Hamid R. Faraji, P.E.

Notice of Rights

Administrative Hearing

1. You or any person whose substantial interests are or may be affected by the District's intended or proposed action may request an administrative hearing on that action by filing a written petition in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.), Uniform Rules of Procedure Chapter 28-106, Florida Administrative Code (F.A.C.) and District Rule 40D-1.1010, F.A.C. Unless otherwise provided by law, a petition for administrative hearing must be filed with (received by) the District within 21 days of receipt of written notice of agency action. "Written notice" means either actual written notice, or newspaper publication of notice, that the District has taken or intends to take agency action. "Receipt of written notice" is deemed to be the fifth day after the date on which actual notice is deposited in the United States mail, if notice is mailed to you, or the date that actual notice is issued, if sent to you by electronic mail or delivered to you, or the date that notice is published in a newspaper, for those persons to whom the District does not provide actual notice.
2. Pursuant to Subsection 373.427(2)(c), F.S., for notices of intended or proposed agency action on a consolidated application for an environmental resource permit and use of sovereignty submerged lands concurrently reviewed by the District, a petition for administrative hearing must be filed with (received by) the District within 14 days of receipt of written notice.
3. Pursuant to Rule 62-532.430, F.A.C., for notices of intent to deny a well construction permit, a petition for administrative hearing must be filed with (received by) the District within 30 days of receipt of written notice of intent to deny.
4. Any person who receives written notice of an agency decision and who fails to file a written request for a hearing within 21 days of receipt or other period as required by law waives the right to request a hearing on such matters.
5. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding District intended or proposed action is not available prior to the filing of a petition for hearing.
6. A request or petition for administrative hearing must comply with the requirements set forth in Chapter 28-106, F.A.C. A petition for a hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's intended action or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no material facts in dispute, and (3) otherwise comply with Rules 28-106.201 and 28-106.301, F.A.C. Chapter 28-106, F.A.C., can be viewed at www.flrules.org or at the District's website at www.WaterMatters.org/permits/rules.
7. A petition for administrative hearing is deemed filed upon receipt of the complete petition by the District Agency Clerk at the District's Tampa Service Office during normal business hours, which are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding District holidays. Filings with the District Agency Clerk may be made by mail, hand-delivery or facsimile transfer (fax). The District does not accept petitions for administrative hearing by electronic mail. Mailed filings must be addressed to, and hand-delivered filings must be delivered to, the Agency Clerk, Southwest Florida Water Management District, 7601 US Hwy 301, Tampa, FL 33637-6759. Faxed filings must be transmitted to the District Agency Clerk at (813) 367-9776. Any petition not received during normal business hours shall be filed as of 8:00 a.m. on the next business day. The District's acceptance of faxed petitions for filing is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation, available for viewing at www.WaterMatters.org/about.

Judicial Review

1. Pursuant to Sections 120.60(3) and 120.68, F.S., a party who is adversely affected by District action may seek judicial review of the District's action. Judicial review shall be sought in the Fifth District Court of Appeal or in the appellate district where a party resides or as otherwise provided by law.
2. All proceedings shall be instituted by filing an original notice of appeal with the District Agency Clerk within 30 days after the rendition of the order being appealed, and a copy of the notice of appeal, accompanied by any filing fees prescribed by law, with the clerk of the court, in accordance with Rules 9.110 and 9.190 of the Florida Rules of Appellate Procedure (Fla. R. App. P.). Pursuant to Fla. R. App. P. 9.020(h), an order is rendered when a signed written order is filed with the clerk of the lower tribunal.

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

H

WOOD STORK KEY

WOOD STORK KEY

Although designed primarily for use by Corps Project Managers in the Regulatory and Planning Divisions, and State Regulatory agencies or their designees, project permit applicants and co-sponsors of civil works projects may find this key and its supporting documents useful in identifying potential project impacts to wood storks, and planning how best to avoid, minimize, or compensate for any identified adverse effects.

- | | | | |
|----|---|-------------------|---|
| A. | Project within 2,500 feet of an active colony site | <i>May affect</i> | |
| | Project more than 2,500 feet from a colony site | go to B | X |
| B. | Project does not affect suitable foraging habitat (SFH) | <i>no effect</i> | |
| | Project impacts SFH: | go to C | X |
| C. | Project impacts to SFH are less than or equal to 0.5 acres | <i>NLAA</i> | X |
| | Project impacts to SFH are greater than or equal to 0.5 acre | go to D | |
| D. | Project impacts to SFH not within a Core Foraging Area (see attached map) of a colony site, and no wood storks have been documented foraging on site | <i>NLAA</i> | |
| | Project impacts to SFH are within the CFA of a colony site, or wood storks have been documented foraging on a project site outside the CFA | go to E | |
| E. | Project provides SFH compensation within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank preferably within the CFA, or consists of SFH compensation within the CFA consisting of enhancement, restoration, or creation in a project phased approach that provides an amount of habitat and foraging function equivalent to that of impacted SFH (see <i>Wood Stork Foraging Habitat Assessment Procedure</i> for guidance), is not contrary to the Service's <i>Habitat Management Guidelines For The Wood Stork In The Southeast Region</i> and in accordance with the CWA section 404(b)(1) guidelines | <i>NLAA</i> | |
| | Project does not satisfy these elements | <i>May affect</i> | |

¹ An active nesting site is defined as a site currently supporting breeding pairs of wood storks, or has supported breeding wood storks at least once during the preceding 10-year period.

² Suitable foraging habitat (SFH) is described as any area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2 and 15 inches (5 to 38 cm). SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to, freshwater marshes and stock ponds, shallow, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp doughs. See above *Summary of General Wood Stork Nesting and Foraging Habitat Information*.

³ On an individual basis, projects that impact less than 0.5 acre of SFH generally will not have a measurable effect on wood storks, although we request the Corps to require mitigation for these losses when appropriate. Wood Storks are a wide ranging species, and individually, habitat change from impacts to less than 0.5 acre of SFH is not likely to adversely affect wood storks. However, collectively they may have an effect and therefore regular monitoring and reporting of these effects are important.

⁴ Upon Corps receipt of a general concurrence issued by the JAFI through the Programmatic Concurrence on this key, "NLAA" determinations for projects made pursuant to this key require no further consultation with the JAFI.

⁵ The U.S. Fish and Wildlife Service (Service) has identified core foraging area (CFA) around all known wood stork nesting colonies that is important for reproductive success. In Central Florida, CFAs include suitable foraging habitat (SFH) within a 15-mile radius of the nest colony; CFAs in North Florida include SFH within a 13-mile radius of a colony. The referenced map provides locations of known colonies and their CFAs throughout Florida documented as active within the last 10 years. The Service believes loss of suitable foraging wetlands within these CFAs may reduce foraging opportunities for the wood stork.

⁶This draft document, *Wood Stork Foraging Habitat Assessment Procedure* by Passarella and Associates, Incorporated, may serve as further guidance in ascertaining wetland foraging value to wood storks and compensating for impacts to wood stork foraging habitat.

Monitoring and Reporting

For the Service to monitor cumulative effects, it is important for the Corps to monitor the number of permits and provide information to the Service regarding the number of permits issued that were determined "may affect, not likely to adversely affect." It is requested that information on date, Corps identification number, project acreage, project wetland acreage, and latitude and longitude in decimal degrees be sent to the Service quarterly.

Literature Cited

Kahl, M.P., Jr. 1964. Food ecology of the wood stork (*Mycteria americana*) in Florida. *Ecological Monographs* 34:97-117.

Ogden, J.C. 1991. Nesting by wood storks in natural, altered, and artificial wetlands in central and northern Florida. *Colonial Waterbirds* 14:39-45

Rodgers, J.A. Jr., A.S. Wenner, and S.T. Schwikert. 1987. Population dynamics of wood storks in northern and central Florida, USA. *Colonial Waterbirds* 10:151-156

Rodgers, J.A., Jr. S.T. Schwikert, and A. Shapiro-Wenner. 1996. Nesting habitat of wood storks in north and central Florida, USA. *Colonial Waterbirds* 19:1-21.

U.S. Fish and Wildlife Service. 1999. South Florida multi-species recovery plan. Fish and Wildlife Service; Atlanta, Georgia. Available from: <http://verobeach.fws.gov/Programs/Recovery/vbms5.html>.

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX



MANATEE KEY

MANATEE KEY
Florida¹
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 structure³ 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 Maps⁴); [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 Maps⁴) D
 Project is not located in an Important Manatee Area (IMA) (see Glossary and accompanying Maps⁴) 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 new⁵ 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 new⁵ 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 Map⁴) *May affect*
 Project is not located in the Braden River Area of Inadequate Protection (Manatee County) (see Glossary and accompanying AIP Map⁴)..... 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, DESOTO⁷, FLAGLER, GLADES, HENDRY, HILLSBOROUGH, LEVY, MANATEE, MONROE⁷, PASCO⁷, 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 vegetation⁸, emergent vegetation or mangrove will have beneficial, insignificant, discountable⁹ or no effects on the manatee¹⁰ O ✓

Project impacts to submerged aquatic vegetation⁸, emergent vegetation or mangrove may adversely affect the manatee¹⁰ *May affect*

O. Project proponent **elects** to follow standard manatee conditions for in-water work¹¹ and requirements, as appropriate for the proposed activity, prescribed on the maps⁴ P ✓

Project proponent **does not elect** to follow standard manatee conditions for in-water work¹¹ and appropriate requirements prescribed on the maps⁴ *May affect*

P. If project is for a new or expanding⁵ 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 appropriate¹² and no further consultation with the Service is necessary.

If project is for a new or expanding⁵ 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 appropriate¹² 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 appropriate¹² 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 new⁵ multi-slip facility, residential dock facility, shoreline stabilization, or dredging, and does not provide new⁵ access for watercraft or

improve an existing access to allow increased watercraft usage, the determination of “*May affect, not likely to adversely affect*” is appropriate¹² 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 appropriate¹¹ 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 (WAAAs) 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.

40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

J

CONSTRUCTION SPECIAL
PROVISIONS: GULF STURGEON
PROTECTION GUIDELINES

CONSTRUCTION SPECIAL
PROVISIONS GULF STURGEON
PROTECTION GUIDELINES
(PURSUANT TO NMFS AND USFWS)

The Gulf sturgeon (*Acipenser oxyrinchus desotoi*) is listed under the Endangered Species Act as threatened. It is managed under the joint jurisdiction of the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS). Potential habitat for the Gulf sturgeon is located within the limits of this project.

The following special provisions will be incorporated into any construction contract where involvement with sturgeon may occur:

The FDOT has coordinated with the NMFS and USFWS early in the project development stage. The following provisions are intended to avoid/ protect known spawning habitats, nursery areas, feeding areas and thermal refuges.

1. The Florida Department of Transportation (FDOT) shall advise all FDOT project personnel and Contractor personnel on the project that there are civil and criminal penalties for harming, harassing or killing sturgeon. The FDOT and the Contractor will be held responsible for any sturgeon harmed, harassed, or killed as a result of the project activity.
2. The FDOT shall provide information to all FDOT and Contract personnel for identification of sturgeon.
3. Appropriate work shift personnel will be instructed in the appearance, habits, biology, migratory patterns, and preservation of sturgeon. At least one of these trained personnel will be on site during construction activities to maintain a constant surveillance for these species, assure the cessation of activities (such as dredging, excess turbidity, and construction barge activity), which may endanger these species, and assure that uninhibited passage for the animals is provided .
4. Post signs on site warning of the presence of sturgeon, of their endangered status and federal protection, and precautions needed.
5. Turbidity from construction activity will be adequately controlled to prevent degradation of the quality and transparency of the water. When sturgeon are present, turbidity curtains of appropriate dimension will be used to restrict the animals' access to the work area. Pollution booms or turbidity curtains should use tangle resistant or hemp rope when anchoring, or employ surface anchors' to prevent entangling sturgeon. Continuous surveillance will be maintained in order to free animals which may become trapped in silt or turbidity barriers.
6. No dredging of the river bottom will be conducted for barge access.

September 2012

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Over Placido Bayou

APPENDIX

K

SEA TURTLE AND SMALLTOOTH
SAWFISH CONSTRUCTION
CONDITIONS



**UNITED STATES DEPARTMENT OF
COMMERCE**
**National Oceanic and Atmospheric
Administration**
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office 263 13th Avenue
South St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824- 5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

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40th Avenue NE Bridge
Over Placido Bayou

APPENDIX

L

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 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 Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com/manatee). One sign which reads Caution: Boaters must be posted. A second sign measuring at least 8 1/2" 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. 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|