

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Gulf Intracoastal Waterway O&M Dredging Manatee & Hillsborough Counties, Florida

Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, & Longboat Pass Cuts 2 and 3

NEPA ID#: EAXX-202-00-K3P-1742397511



**U.S. Army Corps of Engineers
JACKSONVILLE DISTRICT**



U.S. Army Corps of Engineers
JACKSONVILLE DISTRICT

PROPOSED FINDING OF NO SIGNIFICANT IMPACT

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (SEA) FOR MAINTENANCE DREDGING OF THE GULF INTRACOASTAL WATERWAY (GIWW) – CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, AND M-14, & LONGBOAT PASS CUTS 2 AND 3

MANATEE & HILLSBOROUGH COUNTY, FLORIDA

The U.S. Army Corps of Engineers, Jacksonville District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended (NEPA) (Public Law 91-190). The Supplemental Environmental Assessment (SEA) addresses the maintenance dredging and associated placement of dredged material from GIWW Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, and M-14, & Longboat Pass Cuts 2 and 3 (LP-2 and LP-3) in Manatee County, Florida.

The SEA, incorporated herein by reference, evaluated various alternatives for the proposed project. The Preferred Alternative consists of maintenance dredging of the GIWW channel to the authorized depth of 9 feet MLLW plus 2 feet of allowable overdepth. Material will be placed in a dredge hole near the channel and/or in the nearshore of Egmont Key.

In addition to a “No Action” Alternative (Alternative 1) and the Preferred Alternative, dredging of GIWW Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, and LP-2 and LP-3 with placement in a dredge hole adjacent to GIWW Cut M-6 in Manatee County and nearshore at Egmont Key in Hillsborough County (Alternative 2), two additional alternatives were considered¹. Alternative 3 consisted of dredging with placement in the nearshore of Egmont Key in Hillsborough County only, and Alternative 4 consisted of dredging with beach placement at Longboat Key within the Manatee County portion of the Key. All four alternatives were carried forward for detailed evaluation. Section 3 of the EA contains a full description of the alternatives.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the Preferred Alternative are listed in Table 1:

Table 1. Summary of Potential Effects of the Preferred Alternative.

	Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Natural Environment	X		
Fish and other wildlife communities	X		
Threatened and endangered (T&E) species and Designated Critical Habitat (DCH)	X		
Essential Fish Habitat (EFH)		X	
Water quality	X		
Sediment characteristics	X		
Hazardous, toxic, or radioactive waste (HTRW)			X
Air quality and greenhouse gases	X		
Noise			X
Tribal Nations	X		
Cultural Resources	X		
Aesthetics	X		
Recreational resources	X		
Economic environment	X		
Navigation and safety	X		

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the Preferred Alternative. Environmental commitments, as detailed in Section 6.1, will be implemented to minimize impacts.

The Preferred Alternative will result in unavoidable adverse impacts to 0.02 acres of seagrass. To mitigate for these unavoidable adverse impacts, the Corps will place dredged material into an adjacent dredge hole to allow for surrounding seagrass beds to naturally recruit to the site as detailed in Appendix E of the SEA.

The Proposed Finding of No Significant Impact (FONSI), SEA, and associated appendices will be made available to the public, agencies, and other interested stakeholders via the Corps' Environmental Planning website, under "Manatee County", at the following link for a 30-calendar day public and agency review period:

<https://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

Pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended, the Corps determined the project meets eligibility criteria for coverage by the National Marine Fisheries Service (NMFS) Gulf of Mexico Regional Biological Opinion (GRBO) to the U.S. Army Corps of Engineers (COE) on Hopper Dredging of Navigation Channels and Borrow Areas in the U.S. Gulf of Mexico. The project will adhere to the applicable Terms and Conditions. The Corps determined this project is also eligible for coverage by the U.S. Fish and Wildlife Service (USFWS) 2015 Revised Statewide Programmatic Biological Opinion (SPBO) and USFWS 2013 Piping Plover Programmatic Biological

Opinion (P3BO) for the protection of federally listed and threatened species under USFWS jurisdiction. The Preferred Alternative may affect but is not likely to adversely affect (MANLAA) the following federally listed species or their proposed critical habitat: rufa red knot, piping plover, Florida manatee, smalltooth sawfish, and green, hawksbill, loggerhead, and Kemp's ridley sea turtles. The U.S. Fish and Wildlife Service (USFWS) was sent the informal consultation request on 15 June 2026 for concurrence, to be completed prior to finalization of the SEA.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, in order to determine whether or not any historic properties are located with the project footprint, the Corps will conduct a submerged cultural resource assessment survey of those areas previously not surveyed prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). In respect to dredging of the navigation channel in Cuts M4, M5, M12, M13, and M14, Cuts 2 and 3 of Longboat Pass and placement of dredged material in the nearshore placement area adjacent to Egmont Key and the dredge hole, the Corps determined that historic properties would not be adversely affected by the recommended plan, provided that avoidance areas are maintained. The Corps previously consulted with the Florida State Historic Preservation Officer (SHPO) and federally recognized tribes (the Seminole Tribe of Florida, the Miccosukee Tribe of Indians, the Seminole Nation of Oklahoma, the Muscogee Nation, and the Thlopthlocco Tribal Town).

Pursuant to the Clean Water Act of 1972, as amended, the discharge of dredged or fill material associated with the recommended plan has been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act Section 404(b)(1) Guidelines evaluation is found in Appendix D of the SEA.

A water quality certification pursuant to section 401 of the Clean Water Act will be obtained from the Florida Department of Environmental Protection (FDEP) prior to construction. In a letter dated **DATE OF LETTER**, the FDEP stated that the Preferred Alternative appears to meet the requirements of the water quality certification, pending confirmation based on information to be developed during the pre-construction engineering and design phase. All conditions of the water quality certification will be implemented in order to minimize adverse impacts to water quality.

A determination of consistency with the Florida Coastal Zone Management program pursuant to the Coastal Zone Management Act of 1972 will be obtained from

the FDEP prior to construction. In a letter dated **DATE OF LETTER, the STATE OR TERRITORY NAME** stated that the recommended plan appears to be consistent with state Coastal Zone Management plans, pending confirmation based on information to be developed during the pre-construction engineering and design phase. All conditions of the consistency determination shall be implemented in order to minimize adverse impacts to the coastal zone.

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended, the project's Essential Fish Habitat (EFH) Assessment is integrated in this SEA consistent with the guidance provided by the NMFS Southeast Regional Office to the Corps regarding coordination of EFH consultation requirements with NEPA. EFH consultation is being initiated for the Preferred Alternative during this SEA's public comment period. Pertinent correspondence is included in Appendix A.

I certify that the resulting SEA represents the following: the Corps' good-faith effort to prioritize documentation of the most important considerations and factors required by NEPA within the congressionally mandated page limits and timeline; that this prioritization reflects the Corps' expert judgment; the document is substantially complete; that any considerations addressed briefly or left unaddressed were, in the Corps' judgment, comparatively not of a substantive nature that meaningfully informed the consideration of environmental effects and the resulting decision on how to proceed; and that in the Corps' judgment the analysis contained therein is adequate to inform and reasonably explain the Corps' final decision regarding the proposed federal action.

Technical, environmental, economic and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date

Brandon L. Bowman
Colonel, **EN**, U.S. Army
Corps of Engineers
District Commander

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1 INTRODUCTION

1.1 PROJECT AUTHORITY

The Gulf Intracoastal Waterway (GIWW) from the Caloosahatchee River to the Anclote River was authorized and funded by Section 107 of the Rivers and Harbors Act of 1960, as amended. This was preceded by authorization from Chapter 19 of the River and Harbors Act of 1945 (PL-79-14) in accordance with House Document Number 371, 76th Congress. Congressional authorization directed the U.S. Army Corps of Engineers (Corps) to construct and maintain the GIWW channel to a depth of nine (9) feet plus two (2) feet of allowable over depth at Mean Lower Low Water (MLLW).

1.2 PROJECT LOCATION

Manatee County is located on Florida's Gulf Coast along the Gulf of America (formerly Gulf of Mexico) coastline. It is bordered to the north by Hillsborough County and to the south by Sarasota County, Florida. The project area lies adjacent to Longboat Key, Jewfish Key, and Anna Maria Island, just north of Sarasota Bay. (See [Figure 1-1](#)). The portion of the GIWW in Florida maintained by the Jacksonville District Corps extends from the Caloosahatchee River to Anclote River, a distance of 160 miles. The GIWW traverses Lee, Charlotte, Sarasota, Manatee, and Pinellas Counties. The GIWW also exists in the Panhandle of Florida, however, this portion is maintained by the Mobile District Corps¹.

1.3 PROJECT BACKGROUND AND HISTORY

Federal authorization for the GIWW occurred as far back as 1890, when a 5-by-100-foot shipping channel was funded and constructed within Sarasota Bay and extending north to Tampa Bay. A modification of the Sarasota Bay project extended the channel south to Caseys Pass with a 3-by-75-foot channel in 1896. A further extension to Venice occurred in 1907. Along the coast to the north of Tampa Bay, the basis of an inland waterway from Tampa Bay to the Anclote River was formed by Boca Ciega Bay, the Narrows, and Clearwater Harbor. Congress authorized a project to improve this stretch with a 7-by-10-foot channel from Tampa Bay into Boca Ciega Bay, and a 5-by-50-foot channel on to Clearwater Harbor in 1910. Additional legislation in 1919 provided for an 8-by-100-foot channel from Boca Ciega Bay to Tampa Bay. This channel enlargement was completed in 1920 (Alperin, 1983).

Following these efforts, in 1939, the Board of Engineers for Rivers and Harbors recommended an intracoastal project from the Caloosahatchee River to the Anclote River at 9-by-100-feet. Delays in funding due to the war effort paused any improvements to the existing channel segments until 1945, when it received authorization. In 1947, the West Coast Inland Navigation District (WCIND) was created by the Florida legislature, and the WCIND was empowered to levy taxes in order to procure the necessary land for the channel. Continued development and infrastructure throughout this time led to modifying legislation in 1948, 1950, 1954, and 1957. It wasn't until June 1960 that dredging of the channel began, and it was completed in January 1967 (Alperin, 1983). Subsequent maintenance dredging efforts for the GIWW within the project area is believed to have occurred since the 1960s, but this is unverified.

¹ Mobile District U.S. Army Corps of Engineers public website; <https://www.sam.usace.army.mil/>

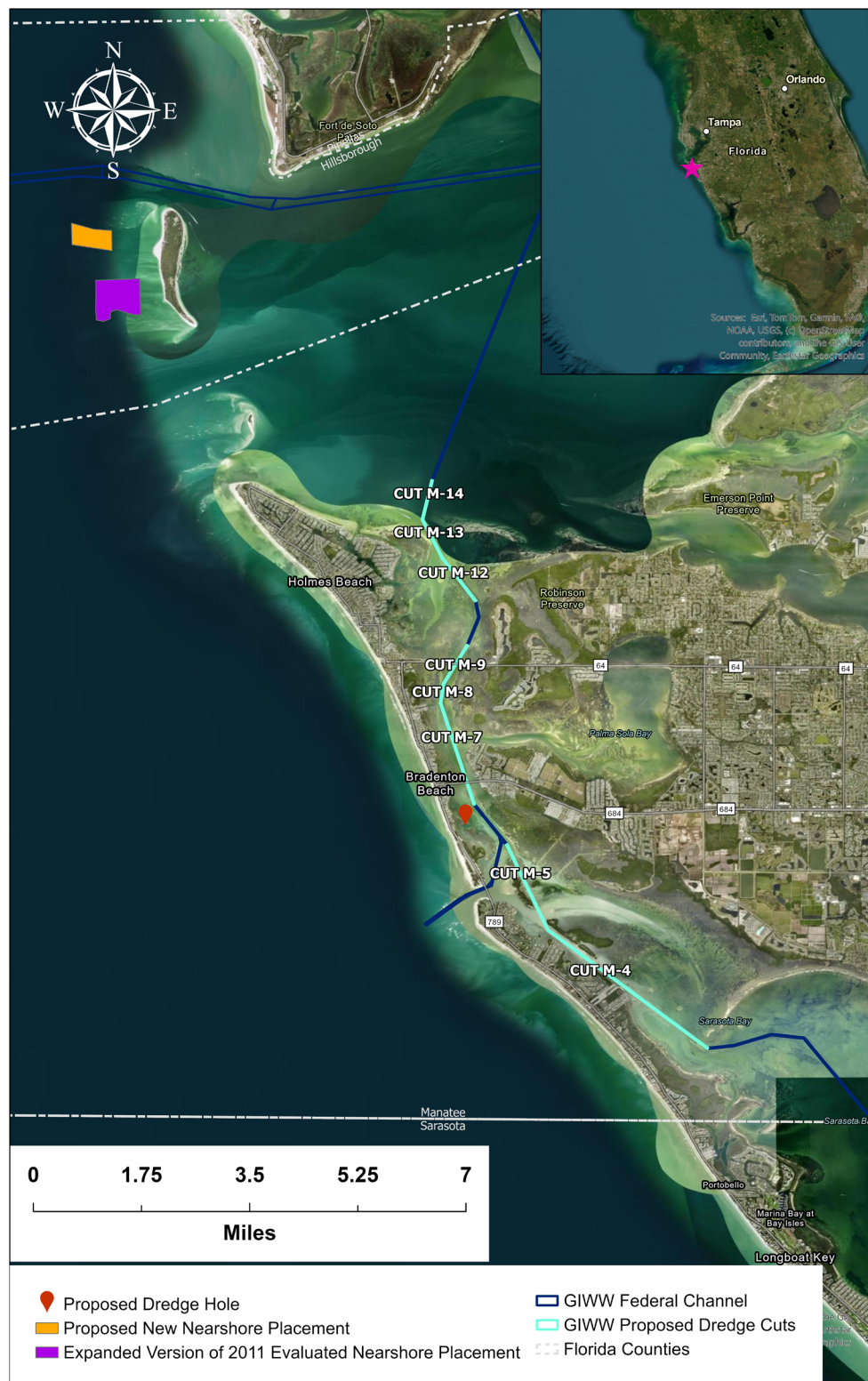


Figure 1-1: Project Area Overview of the GIWW Federal Channel (Dark Blue) with the Proposed Dredge Cuts Highlighted (Light Teal).

1.3.1 RELATED ENVIRONMENTAL DOCUMENTS

Related NEPA, design, and planning documents for the project includes the following, which are available for download at the Corps' environmental documents website² unless otherwise noted:

- Maintenance Dredging and Placement for Longboat Pass, Manatee County, Florida Environmental Assessment and Finding of No Significant Impact (FONSI) (1995)
- Florida Department of Environmental Protection (FDEP) Permit 410289759, issued September 11, 1981, modified by Permit 4117289759 on August 11, 1986, expired September 4, 1991
- FDEP Permit 412376569 issued with an extension on May 13, 1997
- FDEP Permit 0157891-009-EI, issued April 7, 2006
- Environmental Assessment Gulf Intracoastal Waterway (GIWW) Cuts M-5, M-12, and M-14, & Longboat Pass Cuts LP-2 and LP-3; Maintenance Dredging with Nearshore Material Placement; Manatee and Hillsborough Counties, Florida (2011)

1.3.2 RELEVANT ISSUES

Since the last maintenance dredging event completed by the Corps in 2013, shoaling in cuts not previously analyzed for dredging and placement impacts has increased and now requires maintenance of the channel for portions of the GIWW in Manatee County. These additional cuts have not required maintenance dredging until this time due to the relatively low shoaling rate of the Gulf coast when compared to the Atlantic coast. As there is no current analysis of the effects of dredging these cuts, the Corps has determined the proposed action requires completion of a Supplemental Environmental Assessment (SEA) to examine the effects of maintaining these additional cuts. Dredge hole placement in Manatee County is also considered for this SEA, as it was not analyzed in prior NEPA documents. Though cultural resources are discussed in the 2011 EA, additional placement sites in Hillsborough County are being analyzed, therefore, cultural resources will be evaluated in this SEA.

1.3.3 ISSUES ELIMINATED FROM FURTHER ANALYSIS

This SEA is focused on the action of maintenance dredging of the additional cuts (Cuts M-4 and M-13) where shoaled material has been identified through recent hydrographic surveys, as well as placement areas not previously analyzed. The effects of dredging GIWW Cuts M-5, M-12, and 14, and Longboat Pass Cuts 2 and 3 (LP-2 and LP-3), were analyzed in the 2011 EA. The effects of dredged material placement in the nearshore region of Egmont Key and beach placement adjacent to Longboat Pass were also analyzed in prior NEPA documents (1995 and 2011 EAs). The current action expands the previous nearshore placement area at Egmont Key and adds an additional nearshore placement area along the northern shoreline of Egmont Key to increase placement capacity, as well as dredge hole filling. The effects associated with dredged material placement at the expanded placement area and the additional nearshore placement site are substantially similar to those described in prior NEPA documents. Therefore, they will not be analyzed further in this document. The 2011 EA evaluated effects to aesthetics, wildlife resources, noise and safety; therefore, they will not be analyzed further in this document.

² The Corps' environmental website can be accessed here: <https://www.saj.usace.army.mil/About/DivisionsOffices/Planning/Environmental-Branch/Environmental-Documents/>. (Click "+[Manatee]" and scroll down to the project name.)

1.4 PURPOSE AND NEED

This document evaluates whether the Preferred Alternative would result in significant effects on the human environment. The need for mitigation measures or best management practices (BMPs) to reduce any potentially adverse effects from associated activities would be determined based upon the analysis contained within this SEA. The Corps will make the decision to sign the FONSI and move forward with the Preferred Alternative if no significant effects on the human environment are identified. If significant effects are identified, the Corps will choose to implement mitigation measures to reduce the effects to a lower-than-significant threshold, proceed with the Notice of Intent to prepare an Environmental Impact Statement (EIS), or not implement the Preferred Alternative. See Chapter 4 for a detailed analysis of the potential effects of each alternative. See Chapter 5 for a comparison of the alternatives as well as the selection of the preferred alternative (provided specifically in [Section 5.2](#)).

1.5 PUBLIC INTEREST FACTORS

Although the Corps does not process and issue permits for its own activities, pursuant to 33 CFR 336.1, the Corps authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including public notice, and opportunity for public hearing. As part of its review, the Corps evaluates the probable impacts, including reasonably foreseeable effects of the proposed activity and its intended use on the public interest. All factors which may be relevant to the proposal must be considered, including the reasonably foreseeable effects thereof. The following factors are relevant to this project and detailed analysis can be found in the sections noted:

- Coastal Zone Consistency (see Appendix C)
- Economics (see Sections 2.9; 4.9; Table 5-1)
- Endangered Species (see Sections 2.1; 4.1; Table 2-1, 4-1, 5-1)
- Energy Needs (see Section 5.4)
- General Environmental Concerns (see Sections 2; 4; Table 5-1; Appendix F)
- Historic Properties (see Sections 2.8; 4.8; Table 5-1)
- Mineral Needs (see Section 5.4)
- Navigation (see Sections 2.10; 4.10; Table 5-1)
- Needs and Welfare of the People (see Sections 2.10; 4.10; Table 5-1)
- Recreation (see Sections 2.10; 4.10; Table 5-1)
- Water Quality (see Sections 2.3; 4.3; Table 5-1; Appendix C; and Appendix D)

2 EXISTING CONDITIONS

The section succinctly describes the existing environmental resources of the areas that would be affected if any of the alternatives were implemented (“Affected Environment”). The existing conditions provide a description of the human environment, which is subdivided into the natural, physical, economic, and built environments. It does not describe the entire existing environment, but only those environmental resources that would be affected by the alternatives if they were implemented. This section forms the baseline conditions for determining the environmental effects of the proposed action and reasonable alternatives.

2.1 THREATENED AND ENDANGERED (T&E) SPECIES

The list of T&E species developed for this SEA were compiled from the National Marine Fisheries Service (NMFS) 2007 Gulf of Mexico Regional Biological Opinion to the U.S. Army Corps of Engineers (COE) on Hopper Dredging of Navigation Channels and Borrow Areas in the U.S. Gulf of Mexico (GRBO), U.S. Fish and Wildlife Service (USFWS) 2015 Revised Statewide Programmatic Biological Opinion (SPBO), USFWS 2013 Piping Plover Programmatic Biological Opinion (P3BO), the 1995 and 2011 EAs, and the USFWS Information for Planning and Consultation tool (IPaC).

Federally listed T&E species that may be present in or around the project area are listed below in [Table 2-1](#).

Table 2-1. Federally listed T&E species that may occur in the project area.

Common Name	Scientific Name	Federal Status	Agency
Reptiles			
Green sea turtle ¹	<i>Chelonia mydas</i>	Threatened	USFWS & NMFS
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	USFWS & NMFS
Loggerhead sea turtle ^D	<i>Caretta caretta</i>	Threatened	USFWS & NMFS
Kemp’s ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	USFWS & NMFS
Fish and Elasmobranch			
Smalltooth sawfish	<i>Pristis pectinata</i>	Endangered	NMFS
Mammals			
Florida manatee ^D	<i>Trichechus manatus latirostris</i>	Threatened	USFWS
Birds			
Piping Plover	<i>Charadrius melodus</i>	Threatened	USFWS
Rufa Red Knot ^P	<i>Calidris canutus rufa</i>	Threatened	USFWS

¹ North Atlantic distinct population segment (DPS); ^D Designated Critical Habitat (DCH); ^P Proposed Critical Habitat (PCH)

A summary of the presence and biology of the species listed above are provided in the subsections below.

2.1.1 SEA TURTLES

For the purposes of this analysis, “sea turtles” will be used to refer to green, hawksbill, loggerhead, and Kemp’s ridley sea turtles, collectively. These four species of sea turtle are known to occur within the area around Manatee County, with loggerhead being the most abundant sea turtle

species present in Sarasota Bay. They are also the most common nesting species at Anna Maria Island, Longboat Key, and Egmont Key. According to the SPBO, the beaches along Longboat Key and Anna Maria Island are medium density loggerhead and green sea turtles nesting beaches, while Kemp's ridley and hawksbill sea turtle nesting has been previously documented in the area. [Table 2-2](#) provides sea turtle nesting numbers for Anna Maria Island and Longboat Pass from 2021 through 2025, demonstrating the presence of loggerhead and green sea turtles.

Table 2-2: Sea Turtle Nesting on Anna Maria Island and Longboat Pass in Manatee County, Florida between 2021 and 2025.

Year	C. caretta (N)	C. caretta (NNE)	C. mydas (N)	C. mydas (NNE)
2021	1072	1369	10	2
2022	1141	1113	12	1
2023	818	1037	15	12
2024	1215	1792	5	1
2025	1194	1,832	25	42

C. caretta = Loggerhead; C. mydas = Green turtle

N = Nest (when a turtle emerges and lays eggs)

NNE = Non-nesting emergence (when a gravid turtle emerges [so there is a track on the beach] but returns to the sea without depositing her eggs, often due to unfavorable conditions or physical obstructions)

2.1.2 SMALLTOOTH SAWFISH

The smalltooth sawfish (*Pristis pectinata*) is an elasmobranch found in tropical seas and estuaries of the Atlantic Ocean. In the United States historically, the smalltooth sawfish was found from North Carolina to Texas, but habitat loss and mortality from fisheries bycatch have reduced the population dramatically to the point they are now generally only found off southwest Florida. Smalltooth sawfish are named for their distinct rostrum, which is the long, flat snout edged with teeth, because of its saw-like appearance. In Florida, the smalltooth sawfish is most often found off the southwest coast from Charlotte Harbor through the Everglades and Florida Bay, which are approximately 45 miles south of the project area.

2.1.3 FLORIDA (WEST INDIAN) MANATEE

The Florida Manatee (*Trichechus manatus latirostris*) is found throughout Florida's coastal and riverine systems. Throughout the state, there are specific areas designated by the U.S. Fish and Wildlife Service (USFWS) as Important Manatee Areas (IMAs) and Warm Water Aggregation Areas (WWAAs). These areas are considered especially important to the continued success of the threatened species and are described in the 2013 Manatee Key and its 2019 addendum. There are no IMAs or WWAAs within the project area, however, the Florida Fish and Wildlife Conservation Commission (FWC) has identified the project area as a Manatee Protection Zone (MPZ) where slow boating speeds must be maintained year-round. Manatee season in Florida runs from November 15th through March 31st as they migrate to warmer waters for the winter months. [Figure 2-1](#) demonstrates the presence of manatees in the project area between November 2021 and September 2025 as reported to the Save the Manatee Club sighting form. The USFWS has designated critical habitat (DCH) for the Florida manatee; however, it does not

overlap the project area. The nearest DCH is located near Emerson Point Preserve, approximately 3 miles east of Cut M-14 of the GIWW. The proposal for the listing of the West Antillean Manatee into 2 distinct sub-species: the Florida Manatee, and the Antillean Manatee. This classification includes adjustments to critical habitat, where the Emerson Point Preserve area is no longer included as critical habitat for the Florida Manatee.

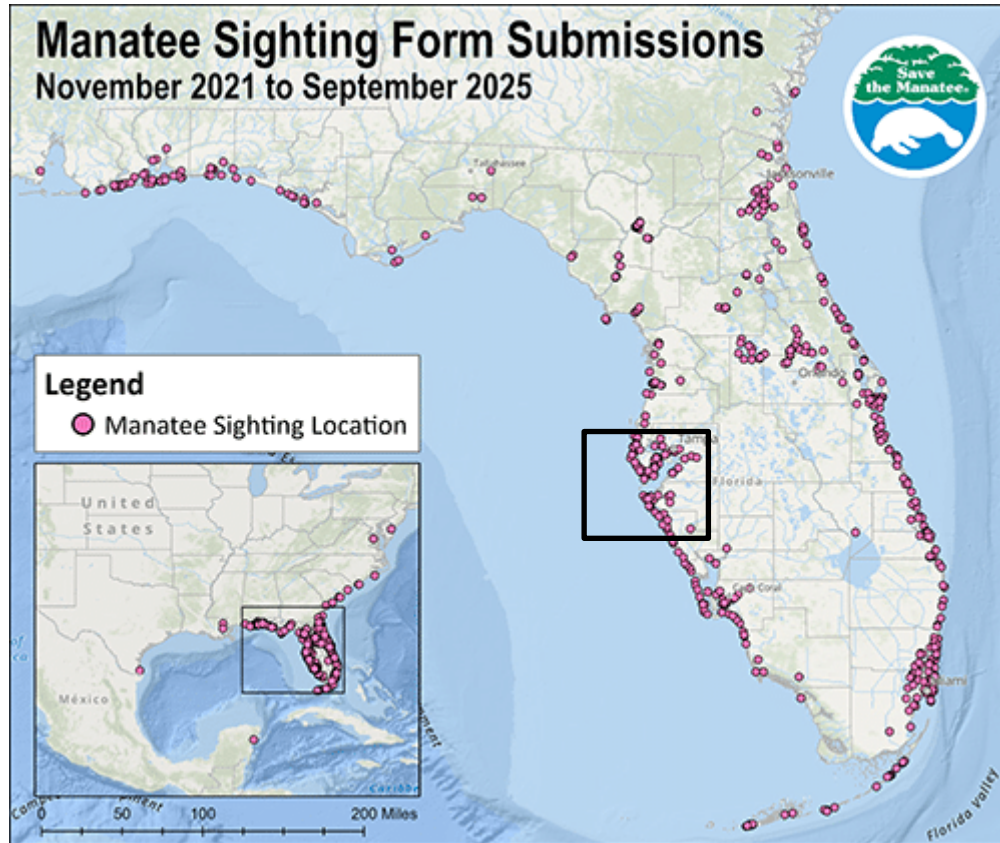


Figure 2-1: Manatee sightings as reported to Save the Manatee Club from November 2021 to September 2025

2.1.4 PIPING PLOVER

The Piping Plover (*Charadrius melodus*) is a small migratory shorebird that feeds along coastal beaches in Florida. Wintering individuals use a variety of habitats and will move among them in response to weather and tide conditions. Their optimal overwintering habitats include sand spits, small islands, tidal flats, shoals, and sandbars with inlets where they forage for insects, small crustaceans, and marine worms. Piping Plover do not breed in Florida, though per the USFWS P3BO, they can be found here between 15 July to 15 May. Egmont Key (just south of the federal channel) and a portion of Fort de Soto Park Beach (just north of the federal channel) are designated as critical habitat for the Piping Plover, Unit FL-21 (Egmont Key) and Units FL-29 and FL-30 (Fort de Soto Park Beach), as shown in [Figure 2-2](#) below.



Figure 2-2: Piping Plover Designated Critical Habitat within Project Area

2.1.5 WOOD STORK

The Wood Stork (*Mycteria americana*) is a large wading bird that nests in mixed hardwood swamps, sloughs, mangroves, and cypress domes in Florida. They forage in a variety of wetlands, including both freshwater and estuarine marshes. In Florida, wood storks are capable of laying eggs from October to June and they nest in large colonies. Colonies in Central and North Florida form from February to March, typically, with those in South Florida forming from late November to early March. Wood storks feed on small to medium-sized fish, crayfish, amphibians, and reptiles. The Dot Dash Dit Critical Wildlife Area includes three mangrove islands and is known to support Tampa Bay's coastal colony of wood storks of about 100 breeding pairs per year and is approximately 11 miles from the project area in the Manatee River watershed north of downtown Bradenton. The wood stork was delisted from the Endangered Species Act (ESA) on February 10, 2026, which went into effect as of March 12, 2026 (FWS-R4-ES-2022-0099).

2.1.6 RUFA RED KNOT

The rufa red knot (*Calidris canutus rufa*) is a medium-sized shorebird with a relatively stocky build with a short bill and legs. In Florida, the rufa red knot winters and migrates through coastal marine and estuarine habitats in muddy or sandy areas like bays, estuaries, tidal flats, and inlets. They are specialized molluscivores, meaning they primarily feed on hard-shelled mollusks like clams and mussels while wintering in Florida's coastal habitats. The Gulf Coast of Florida is an important wintering area for the rufa red knot, though they nest in Canada and the Great Lakes region during summers. The USFWS has proposed critical habitat for the rufa red knot on the southern section of Egmont Key and along the beaches of Longboat Key within the identified beach placement area, as shown in [Figure 2-3](#).



Figure 2-3: Proposed Critical Habitat for the Rufa Red Knot within Project Area

2.2 ESSENTIAL FISH HABITAT (EFH)

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996, requires federal agencies to consult with NMFS on

activities that may adversely affect EFH. The South Atlantic Fishery Management Council (SAFMC) defines EFH as “those waters and substrate necessary to fish for spawning, breeding, or growth to maturity” (SAFMC 1998).

The SAFMC designated seagrasses, corals, coral reefs, hardbottom, and unconsolidated sediments as EFH. SAFMC also designated corals, coral reefs, hardbottom and seagrass as Habitat Areas of Particular Concern (HAPCs). HAPCs are a subset of EFH that are either rare, particularly susceptible to human-induced degradation, important ecologically, or located in an environmentally stressed area. In light of their designation as EFH-HAPCs and Executive Order (E.O.) 13089 (Coral Reef Protection), NMFS applies greater scrutiny to projects affecting corals, coral reefs, hardbottom, and seagrass to ensure practicable measures to avoid and minimize adverse effects to these habitats are fully explored.

A benthic survey was completed in September and October of 2023 in order to determine the presence of submerged aquatic vegetation (SAV) and hardbottoms. The survey scope included desktop assessment and diver-based surveys for Cuts M-1 through M-14, both within the federal channel and a 150-meter buffer around the channel on either side, everywhere practicable. The species listed in [Table 2-3](#) were observed during the benthic survey.

2.2.1 SEAGRASSES

As indicated by the survey, a mix of continuous and patchy seagrass was observed in and around Cuts M-4, M-5, M-12, and M-14. *Halodule wrightii* was identified as the dominant species in 50.2% of the delineated seagrass habitats in the 2023 survey. Sarasota Bay is protected by the barrier of Longboat Key and Anna Maria Island from higher wave action, allowing seagrass beds to flourish in the area. The shallow and clear waters also allow for light penetration from the surface to subsurface in the area encouraging seagrass growth.

2.2.2 CORALS, CORAL REEFS, AND HARDBOTTOM HABITATS

Hardbottom habitat was delineated during the benthic survey within the project vicinity, outside of the federal channel boundaries. There are no hardbottoms in the federal channel. Hardbottom habitat is present within 150-meters of the federal channel boundaries adjacent to Cuts M-4, M-5, M-6, and M-7. The most abundantly observed biota observed on the existing hardbottom habitat during the survey was macroalgae, sponges, colonial tunicates, octocorals, and scleractinian corals. Hardbottom habitat was also identified within 1000 ft of the shoreline along Longboat Key within the identified beach placement area. There is an artificial reef approximately 4700 ft east of Egmont Key, outside of the project area.

Table 2-3: Comprehensive list of species observed during the 2023 benthic survey, along with their relative abundance. A represents abundant, C represents common, and F represents few.

Common Name	Scientific Name	Abundance
Seagrass		
Manatee grass	<i>Syringodium filiforme</i>	A
Shoal grass	<i>Halodule wrightii</i>	A
Turtle grass	<i>Thalassia testudinum</i>	A
Mangroves		
Black mangrove	<i>Avicennia marina</i>	A
Red mangrove	<i>Rhizophora mangle</i>	A
Algae		
Green Algae	Chlorophyta	
Green algae	<i>Penicillus</i> spp.	F
Green algae	<i>Codium</i> sp.	F
Green algae	<i>Udotea</i> spp.	C

Green blade algae	<i>Caulerpa prolifera</i>	A
Green calcareous algae	<i>Halimeda</i> spp.	F
Green feather algae	<i>Caulerpa sertularioides</i>	A
Green fern algae	<i>Caulerpa mexicana</i>	A
Green hair algae	<i>Bryopsis</i> sp.	C
Red Algae	Rhodophyta	
Red algae	<i>Amphiroa</i> sp.	C
Red algae	<i>Laurencia</i> sp.	C
Red algae	<i>Gracilaria</i> sp.	A
Red algae	<i>Hypnea</i> sp.	A
Red algae	<i>Acanthophora</i> spp.	A
Red algae	<i>Halymenia</i> spp.	C
Brown Algae	Phaeophyta	
Brown algae	<i>Dictyota</i> spp.	C
Brown algae	<i>Sargassum</i> spp.	C
Brown algae	<i>Padina</i> spp.	C
Porifera		
Black ball sponge	<i>Ircinia strobilina</i>	C
Black encrusting sponge	<i>Chondrosia collectrix</i>	C
Boring sponge	<i>Cliona</i> sp.	A
Orange ball sponge	<i>Cinachyrella apion</i>	F
Orange encrusting sponge	<i>Pione lampa</i>	C
Pink overgrowing sponge	<i>Desmapsamma anchorata</i>	C
Red boring sponge	<i>Cliona delitrix</i>	C
Sponge	<i>Dictyonella funicularis</i>	A
Cnidaria		
Scleractinian Corals		
Hidden cup coral	<i>Phyllangia americana</i>	F
Knobby star coral	<i>Solenastrea hyades</i>	C
Lesser starlet coral	<i>Siderastrea radians</i>	C
Massive starlet coral	<i>Siderastrea sideraea</i>	F
Robust ivory tree coral	<i>Oculina robusta</i>	C
Tube coral	<i>Cladocara arbuscula</i>	F
Octocorals		
Sea whip	<i>Leptogorgia</i> spp.	A
Hexacorallia		
Banded tube dwelling anemone	<i>Isarachnanthus nocturnus</i>	C
Zoanthids	<i>Zoantharia</i>	C
Hydrozoa		
Algae hydroid	<i>Thyroscyphus ramosus</i>	A
Branching hydroid	<i>Sertularella diaphana</i>	A
Annelida		
Fanworm	<i>Notaulax</i> spp.	C
Spaghetti worms	<i>Eupolymnia crassicornis</i>	F
Arthropoda		
Giant hermit crab	<i>Petrochirus diogenes</i>	F
Horseshoe crab	<i>Limulus polyphemus</i>	F
Spider crab	<i>Libinia</i> sp.	A
Spiny lobster	<i>Panulirus argus</i>	F

Stone crab	<i>Menippe mercenaria</i>	C
Mollusca		
Auger	<i>Terebra</i> spp.	C
Florida cross-barred venus	<i>Chione elevata</i>	C
Banded tulip	<i>Cinctura liliium</i>	C
Florida fighting conch	<i>Strombus alatus</i>	C
Giant Atlantic cockle	<i>Dinocardium robustum</i>	F
Horse conch	<i>Triplofusus giganteus</i>	C
Left-handed whelk	<i>Sinistrofulgur perversum</i>	A
Pen shell	Pinnidae	A
Sawtooth pen shell	<i>Atrina serrata</i>	C
Sunray venus clam	<i>Macrocallista nimbosa</i>	C
True tulip	<i>Fasciolaria tulipa</i>	C
Echinodermata		
Conical spined sea star	<i>Echinaster sentus</i>	A
Five-keyhole sand dollar	<i>Melita quinquiesperforata</i>	A
Florida sea cucumber	<i>Holothuria floridana</i>	F
Two-spined sea star	<i>Astropecten duplicatus</i>	C
Variegated sea urchin	<i>Lytechinus variegatus</i>	C
Chordata		
Black condominium tunicate	<i>Eudistoma obscuratum</i>	A
Black tunicate	<i>Phallusia nigra</i>	C
Bulb tunicates	<i>Clavelina</i> spp.	A
Condominium tunicate	<i>Eudistoma</i> spp.	A
Encrusting tunicates	<i>Didemnum</i> spp.	A
Encrusting tunicates	<i>Botrylloides</i> spp.	A
Flat tunicate	<i>Botrylloides nigrum</i>	C
Fishes		
Alligator gar	<i>Atractosteus spatula</i>	F
Atlantic spadefish	<i>Chaetodipterus faber</i>	A
Bandtail puffer	<i>Sphoeroides spengleri</i>	F
Bonnethead shark	<i>Sphyrna tiburo</i>	F
Chain pipefish	<i>Syngnathus louisianae</i>	C
Common snook	<i>Centropomus undecimalis</i>	C
Dusky damselfish	<i>Stegastes adustus</i>	C
Foureye butterflyfish	<i>Chaetodon capistratus</i>	F
Goliath grouper	<i>Epinephelus itajara</i>	F
Gray snapper	<i>Lutjanus griseus</i>	A
Green moray eel	<i>Gymnothorax funebris</i>	F
Gulf menhaden	<i>Brevoortia patronus</i>	A
Hamlet	<i>Hypoplectrus</i> spp.	C
Hardhead catfish	<i>Ariopsis felis</i>	F
High-hat	<i>Paraques acuminatus</i>	C
Inshore lizardfish	<i>Synodus foetens</i>	C
Lane snapper	<i>Lutjanus synagris</i>	A
Leopard sea robin	<i>Prionotus scitulus</i>	C
Mojarra	<i>Eucinostomus</i> spp.	C

Mutton snapper	<i>Lutjanus analis</i>	C
Nurse shark	<i>Ginglymostoma cirratum</i>	F
Porkfish	<i>Anisotremus virginicus</i>	C
Pygmy bass	<i>Serraniculus pumilio</i>	F
Red grouper	<i>Epinephelus morio</i>	C
Sand perch	<i>Diplectrum formosum</i>	C
Scrawled cowfish	<i>Acanthostracion quadricornis</i>	F
Sergeant major	<i>Abudefduf saxatilis</i>	C
Sheepshead	<i>Archosargus probatocephalus</i>	C
Southern stingray	<i>Hypanus americanus</i>	C
Spotfin butterflyfish	<i>Chaetodon ocellatus</i>	F
Striped burrfish	<i>Chilomycterus schoepfi</i>	F
Tarpon	<i>Megalops atlantica</i>	C
Tomtate	<i>Haemulon aurolineatum</i>	A
White grunt	<i>Haemulon plumierii</i>	C
Yellow stingray	<i>Urobatis jamaicensis</i>	F
Mammalia		
Bottlenose dolphin	<i>Tursiops truncatus</i>	A
West Indian manatee	<i>Trichechus manatus</i>	C

2.3 WATER QUALITY

Sarasota Bay, at the location of Anna Maria Island and Longboat Key, has a Surface Water Quality Classification of Class II, which also applies to Egmont Key. A Class II waterbody is defined as having sufficient water quality sufficient for shellfish propagation and harvesting. However, portions of Sarasota Bay, including waters within the project area, have been identified as impaired. Water bodies that do not meet water quality standards are identified as "impaired" for the particular pollutants of concern (nutrients, bacteria, mercury, etc.). For impaired waters, Total Maximum Daily Loads (TMDLs) must be developed, adopted and implemented to reduce pollutant loading and restore water quality. A TMDL represents the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet applicable water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant (U.S. EPA, [EPA], 2025).

In addition to this classification, the waters within Sarasota Bay, including the project area, have also been designated by the state as Outstanding Florida Waters (OFW). According to the FDEP's website, an OFW is a water designated worthy of special protection because of its natural attributes. This special designation is applied to certain waters and is intended to protect existing good water quality.

2.4 SEDIMENTS/GEOLOGY

The materials to be dredged within the GIWW Manatee County are composed of poorly graded fine-grained sand consisting of quartz and shell fragments with an average grain size of 0.21 mm. The average percentage of fines passing the #230 sieve is 3.20 %. Material retained in the #4 sieve averages 1.57%.

Relevant sediment data is unavailable for the proposed dredged material placement areas of the Egmont Key nearshore (Alternatives 1 through 3) and the dredge hole (Alternative 2). The proposed beach placement on Longshore Key (Alternative 4), can be characterized by the following: poorly graded, mostly fine-grained quartz sand, with little to some medium sand-sized shell fragments. Detailed sand composition data for the beach is unavailable.

2.5 CLIMATOLOGY

Climatology is the scientific study of Earth's climate. Natural processes and human actions have been identified as affecting the climate. Sea level along the contiguous U.S. coastline is expected to rise on average around 0.25-0.30m over the next 30 years. Due to processes driving regional change, sea level rise along the Gulf Coast of the U.S. would be an additional 10-15 cm higher on average, than the rest of the U.S. Sea level along the eastern Gulf Coast of the U.S. is expected to rise between 0.6 and 2.2m above the baseline levels of 2000, by 2100. By 2050, the expected relative sea level (RSL) would cause tide and storm surge heights to increase and would lead to a shift in U.S. coastal flood regimes, with major and moderate high tide flood events occurring as frequently as moderate and minor high tide flood events occur today. Higher global temperatures would continue to increase the chances of higher sea level by the end of the century and beyond (Sweet et al, 2022).

However, increasing Greenhouse Gas (GHG) concentrations in the atmosphere resulting from human activity since the 19th century, such as fossil fuel combustion, deforestation, and other activities, are believed to be a major factor in impacts to climate conditions. Increases in the concentrations of GHGs, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), in the atmosphere during the last 100 years have trapped additional solar radiation, intensifying the natural greenhouse effect and resulting in an increase in global average temperature at an average rate of 0.17 F per decade since 1901 (USEPA, 2021).

CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are the principal GHGs emitted which contribute to the rise in global air temperatures since the 1800s. Emissions of CO₂ and N₂O are largely byproducts of fossil fuel combustion. Alternatively, CH₄ results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers, and other industrial facilities. Fluorinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher potential for heat absorption than CO₂ are byproducts of certain industrial processes. Conversely, CO₂ is naturally removed from the atmosphere and stored in sinks which include vegetation and the ocean through sequestration and dissolution. These represent two of the largest reservoirs of CO₂ sequestration.

2.6 AIR QUALITY

The Clean Air Act of 1972, as amended, (CAA) requires federal actions to conform to an approved state implementation plan designed to achieve or maintain an attainment designation for air pollutants as defined by the National Ambient Air Quality Standard (NAAQS). The NAAQS were designed to protect public health and welfare. The criteria pollutants include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM_{2.5} and PM₁₀), and lead (Pb). The General Conformity Rule (40 CFR Parts 51 and 93) implements these requirements for actions occurring in air quality nonattainment areas.

The project area is located in the Air Quality Control Region (AQCR) 052 known as the West Central Florida AQCR (40 CFR 81.310). The project area is in attainment for all the NAAQS.

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The total gross GHG emissions for the state of Florida in 2018 were estimated to be 304.8 MMT CO₂e. The 2018 net emissions were estimated at 292.4 MMT CO₂e, with sinks being factored in. The corresponding emission estimates for 2005 were a gross of 297.6 and a net of 293.7 MMT CO₂e, respectively. The total gross GHG emissions in 2018 were higher compared to the 2005 baseline, however, the net emissions were similar. This is attributed to the higher GHG removals from forest management activities in 2018 (-12.4 MMT CO₂e) and from coastal wetlands (-2.4 MMT CO₂e). Although the total GHG emissions in Florida showed an increasing trend from 2005 to 2018, GHG emissions intensity [emissions per capita and emissions per million USD (\$) Gross State Product (GSP)] showed a general declining trend given the increase in population in that period. In 2018, the highest GHG emissions in Florida came from the energy sector, where transportation and electric power generation (energy utilities as well as residential, commercial, and industrial facilities) were the largest contributors. Total GHG emissions from the energy sector for 2018 amounted to 251.3 MMT CO₂e, which equates to roughly 82.5% of the state's total gross emissions. The values for the transportation and electric power generation components of that 2018 sector total are 128.6 MMT CO₂e (~42% of state gross emissions) and 122.8 MMT CO₂e (~40%), respectively. The main fuel types for energy generation in Florida are petroleum, coal, and natural gas. The largest current and historical GHG emissions are generated from petroleum use, with emissions ranging from 110.2 to 153.9 MMT CO₂e across the entire time series. Until 2010, coal was the second-largest emitter until natural gas emissions surpassed those of coal.

Despite the recent decline, petroleum is expected to be the largest contributor in the future (FCI, 2022).

The portion of the GIWW channel to be dredged is located within Manatee County. The University of South Florida conducted a GHG emissions audit in 2018. The audit included government operations in the following categories: 1) buildings and facilities, 2) solid waste facilities, 3) electric power production, 4) water and wastewater facilities, 5) process and fugitive emissions, and 6) transportation. It was determined that process and fugitive emissions were the largest contributor to GHGs in Manatee County, producing 62,314 MT CO₂e. The next largest contributor was water and wastewater treatment facilities that generated 24,176 MT CO₂e. Electric power production, county vehicle fleet, buildings and facilities, transit fleet, employee commute, and street and traffic lights contributed 16,205, 12,302, 10,263, 2,944, 2,521 and 325 MT CO₂e, respectively. The total GHG emissions for 2018, from government operations only, were calculated to be 132,840 MT CO₂e.

Dredge material will be placed on Egmont Key, which falls within the Tampa-St. Petersburg-Clearwater Metropolitan Statistical Area (MSA). In 2021, a baseline GHG inventory of the MSA was conducted. In 2021, the total GHG emission for the MSA were 31,747,346 MT CO₂e. Transportation and Mobile Sources was the largest sector contributing GHG emissions, representing 42.8% of the total emissions. Residential Energy and Commercial Energy represented 21.7% and 19.3% of total GHG emissions, respectively. The top three categories accounted for 83.8% of total emissions. Other sources of GHG emissions, all contributing less than 5% of the total, include Solid Waste, Industrial Energy, Process and Fugitive emissions, Upstream Impacts and Agriculture, Forestry, and Other Land Use. Forests and other trees sequestered an estimated 1,553,630 MT CO₂e from the atmosphere, resulting in total net emissions of MT 30,193,715 CO₂e for the Tampa-St. Petersburg-Clearwater MSA (TBRPC, 2024).

2.7 TRIBAL NATIONS

There are two federally recognized tribes living in Florida, the Miccosukee Tribe of Indians and the Seminole Tribe of Florida, and additional removed tribes with ancestral ties to the region. Both tribes share a long history of inhabiting the project area and maintain continued traditional and cultural practices in the region. These tribes regard the indigenous population of Florida as their ancestors. The Seminole Tribe of Florida has a reservation located in Tampa approximately 40 miles from Egmont Key near the junction of Route 4 and E. Hillsborough Ave in east Tampa. Though neither tribe has Reservation lands or lands held in trust landholding in the project area, both tribes retain an interest. As noted in the Cultural Resources section, Egmont Key is identified as an important location in the history related to the Seminole Wars and forced removal of Native Americans in Florida. No sacred sites or trust resources have been identified in the project area.

The Seminole Tribe of Florida received federal recognition as a sovereign nation in 1957. In an effort to maintain their own unique cultural identity, independence, and heritage, other Native American groups, primarily located along Tamiami Trail, refused to join in tribal recognition with the Seminole Tribe of Florida. Through their continued persistence and resistance to join, these groups held out to establish their own governance resulting in their federal recognition as the Miccosukee Tribe of Indians in 1962.

Today the Miccosukee Tribe of Indians generally occupy reservations within two counties of southern Florida. The population primarily resides within the Tamiami Trail Reservation located 40 miles west of Miami. The Miccosukee also maintain a perpetual lease within Water Conservation Area 3A on lands administered by the South Florida Water Management District

(SFWMD). The tribe uses this lease to maintain their uniquely adapted Everglades traditional and cultural lifeways including subsistence agriculture, medicinal practices, ceremonial activities, hunting, and fishing. Alligator Alley Reservation is the Miccosukee Tribe's largest reservation consisting of 74,812.37 ac, on the north and south sides of Interstate 75. Approximately 50,000 ac of this land is set aside for wetlands conservation, and the remaining is planned for development. Two additional smaller reservations are known as the Krome Avenue Reservations, located at the intersection of Krome Avenue and Tamiami Trail. These smaller reservations administer the Miccosukee Indian Resort and Gaming operations and the Miccosukee Tobacco Shop.

The Seminole Tribe of Florida members reside on several reservations and properties, with the largest being those of Big Cypress, Hollywood, and Brighton Reservations. Hollywood is the headquarters location for the Seminole Tribe of Florida, and the smaller reservations are Tampa, Fort Pierce, and Immokalee. As with the Miccosukee Tribe of Indians, the Seminole Tribe of Florida practice traditional cultural activities uniquely adapted to the Everglades, including hunting, fishing, agriculture, medicinal, and ceremonial activities. They also engage in modern entrepreneurship through various enterprises including cattle ranching, gaming, and businesses centering on tourism.

2.8 CULTURAL RESOURCES

The earliest widely accepted date of occupation by aboriginal inhabitants of Florida dates from around 12,500 years ago, and new evidence suggests that people were present in the region even earlier. This earliest cultural period, called the Paleo-Indian period, lasted until about 7500 B.C. Few Paleo-Indian archeological sites are recorded in south Florida. During this period, the continental shelves were exposed, and the Florida peninsula encompassed an area approximately twice the current size of the state of Florida. Gradual sea level rise which occurred between about 10,000 years ago to 6,000 years ago resulted in the submergence of many terrestrial archaeological sites along the Gulf Coast.

During the Archaic period (ca. 7500 B.C.-ca. 500 B.C.), prehistoric people exploited a wider range of resources and may have led to a more sedentary existence than earlier periods. Most Archaic period archeological sites recorded in the Florida Master Site File (FMSF) are clustered along the Atlantic and Gulf coasts, and along old remnant lake shorelines. Sea levels continued to rise until reaching approximate modern levels during this period. The stabilization of sea levels resulted in the formation of estuaries where Archaic period populations heavily exploited coastal resources. Large prehistoric Archaic period shell rings have been identified on coastal sites including Bonita Bay and Horr's Island in southwest Florida (Russo 2006). In the Tampa Bay area, evidence of Native American occupation has been recovered in numerous spoil areas from past dredging events and immediately adjacent to the coastline. For example, dredging in the vicinity of Gadsden Point within Tampa Bay identified thick layers of shell midden containing diagnostic artifacts dating from the Paleoindian through the Late Archaic Periods (Goodyear et al. 1983). The Archaic traditions eventually developed into the unique cultural affiliations identified temporally as Orange, Manasota, Weeden Island, and Safety Harbor.

European exploration of southwest Florida began in the sixteenth century. The earliest recorded historic maritime activity in the project area dates to 1521, when Ponce de Leon led an attempt to establish a Spanish colony in the vicinity of Charlotte Harbor. This early attempt at settlement was repulsed by the Calusa. Later, other explorers including Panfilo de Narvaez, and Hernando de Soto landed near present day Tampa Bay. Pedro Menéndez de Avilés made brief attempt to establish a Spanish mission to the Calusa in 1567; however, the attempt was abandoned by 1569.

In 1763, the Spanish relinquished control of Florida to the British in a settlement following the Seven Years War. The area remained relatively unsettled by Europeans.

The Gulf Coast of Florida has been explored by warships, trading vessels, submarines, and pleasure craft since the Age of Exploration until the present. The potential exists for both prehistoric and historic cultural resources to occur within the project area and submerged prehistoric sites have been identified within and adjacent to the project area.

The project area has been subject to a number of cultural resource investigations and contains significant and potentially significant historic properties.

In 2010, a remote sensing cultural resources survey was conducted by Southeastern Archaeological Research, LLC (SEARCH), covering Cuts M-1 through M-14 of the GIWW channel, Cuts 1 and 2 of Longboat Pass, and Skyway Cuts 2 and 3 (see Florida Master Site File [FMSF] report #18237, entitled Cultural Remote Sensing Survey of the Gulf Intracoastal Waterway, Manatee, Pinellas, and Hillsborough Counties, Florida). The survey resulted in the identification of three magnetic targets (see DHR Project File No. 2011-01972).

Adjacent to the northern portion of the project area, the island of Egmont Key is historically associated with the Fort Dade complex, which likewise is associated with Native American detainments in with 19th century, most notably following the 1830 Indian Removal Act. This resulted in Native Americans, including a number of Seminoles, were removed from their lands, transported to and held on the island before being forcibly removed from Florida by boat to locations west of the Mississippi River. Egmont Key, which contains the structural remains of military installations, gun emplacements, and various buildings, was listed in the National Register of Historic Places (NRHP) in 1978 as 8HI1117. In acknowledgement of the fact that continued beach erosion may undermine the stability of different elements of this historic property and that the placement of beach compatible sand along the island's eroded shoreline may reduce these impacts, the Corps entered into a Memorandum of Agreement (MOA) with the Florida Fish and Wildlife Service (FWS) and the Florida State Historic Preservation Office (SHPO) in 2013; (reaffirmed in 2023). This agreement outlines procedures and stipulations for the placement of dredged material along the eroding coastline to ensure that it may benefit preservation but will not adversely affect historic property elements. In the agreement the entire island represents the area of potential effects (APE) any time an undertaking affects any part of the island.

In 2023, a remote sensing cultural resources survey was conducted that encompassed the nearshore placement area south of Longboat Pass adjacent to Whitney Beach (entitled *Gulf Intracoastal Waterway Longboat Pass Placement, Manatee County, Florida: Submerged Cultural Resources Survey and Archaeological Diver Investigations*). Three magnetic targets and three subbottom features were identified, which SHPO recommended be avoided by all ground disturbing activity within a 200 foot buffer (see DHR Project File No. 2023-6368). In addition, the remaining four submerged targets within the GIWW channel were investigated by divers. Three were not relocated and the fourth was determined to be modern debris.

2.9 SOCIOECONOMICS

The project area is located in Manatee County, FL, specifically the waterway between Anna Maria Island and Bradenton, FL. According to the U.S. Census Bureau, Manatee County has a population of 458,352 and a median per capita income of \$46,573, as of July 2024. Anna Maria Island is a beach community and is home to several beaches including Manatee County beach, Longboat Key, and Holmes Beach. In addition to beaches there are boat marinas and piers, which

host privately owned vehicles as well as public charters. There is also a golf club on the Northeast side of the island. Bradenton has several boat piers, hotels, and nature preserves along the waterway. According to the Manatee County Tax Collector's office, the county collected over \$32 million in tourist development taxes in the 2024-2025 fiscal year.

2.10 NAVIGATION & RECREATION

The GIWW is authorized to ensure safe and operable navigation to a depth of 9 feet plus 2 feet of allowable overdepth Mean Lower Low Water (MLLW). Today, the GIWW channel's main functions for navigation are recreational and commercial. Historically, the GIWW was originally developed to facilitate commercial shipping to and along the Southwest Florida coast. Annually, there are approximately 19-20,000 vessels registered in Manatee County and approximately 40-43,000 vessels registered in Hillsborough County, according to the WCIND strategic plan for 2022-2027 and the Florida Department of Highway Safety and Motor Vehicles. The main function of the GIWW channel today is for recreational purposes such as cruising, sailing, fishing, and eco-exploring activities. Primarily these activities are undertaken by private citizens and members of the public, both those that live along the waterway and those that do not. Shoaling within the federal channel has occurred since the last maintenance event, presenting challenges to navigation that have the potential to increase risks to human health and life safety.

3 ALTERNATIVES

This section describes in detail the No Action alternative and other reasonable alternatives that were evaluated and/or eliminated from further analysis. The beneficial and adverse environmental effects of the alternatives are presented in comparative form. Section 4 (Environmental Effects) compares the alternatives in more detail, providing a clear basis for choice to the decision maker and the public.

3.1 DESCRIPTION OF ALTERNATIVES

Pre-dredge surveys may identify and confirm that maintenance dredging is only needed in certain portions of the project, which would be less than the full project footprint. There are a variety of different combinations of areas that could be determined to need dredging; all of these alternative dredging scenarios would have similar, but less potential effects on the quality of the human environment. As such, the analysis in this SEA would support maintenance dredging events where less than the entire project footprint is dredged by providing sufficient information about the potential effects on the quality of the human environment. Typically, the period of performance of the contract is greater than the days of actual dredging, allowing for weather delays, contractor start and stops (i.e., contractor leaves and returns to the project within the contract's period of performance), and potential mechanical/equipment issues. Dredging is dependent on the volume and material of shoaling that requires removal and assumes that the dredge is operating twenty-four hours per day, seven days per week. Environmental commitments are detailed in Section 6, [Table 6-1](#).

As the Corps does not dictate contractor methods to perform the required dredging, the Corps has evaluated a wide range of potential hydraulic or mechanical dredge techniques, equipment, and associated characteristics as described in the Corps' Engineer Manual (EM) 1110-2-5025, Engineering and Design - Dredging and Dredged Material Management, 31 July 2015³. In addition to these methods, the use of a drag bar may also be employed to smooth down high spots and fill in low spots. Although drag bars are generally used as a finishing technique, this method may also be effective to remove high spots in the vicinity of sensitive resources, such as corals. Effects of a drag bar are similar to a large draft, vessel passage resulting in the temporary disruption of sediment. Use of a drag bar is limited to the channel bottom and/or near-bottom side slopes to minimize potential adverse effects.

3.1.1 Alternative 1: Dredging of Cuts M-5, M-12, M-14, and Longboat Pass Cuts 2 and 3, with Nearshore Placement at Egmont Key (No Action)

Alternative 1 is the "No Action" alternative and maintains the status quo as previously evaluated in the 2011 EA: Maintenance dredging efforts would continue to occur within Manatee County in the GIWW channel Cuts M-5, M-12, M-14, and LP-2 and LP-3. Material removed from the channel and pass would be placed in the nearshore at Egmont Key, approximately 1,500 feet from the western shoreline of the key in Hillsborough County, as shown in [Figure 3-1](#).

³ EM 1110-2-5025 is available to be downloaded from https://www.publications.usace.army.mil/portals/76/publications/engineermanuals/em_1110-2-5025.pdf.

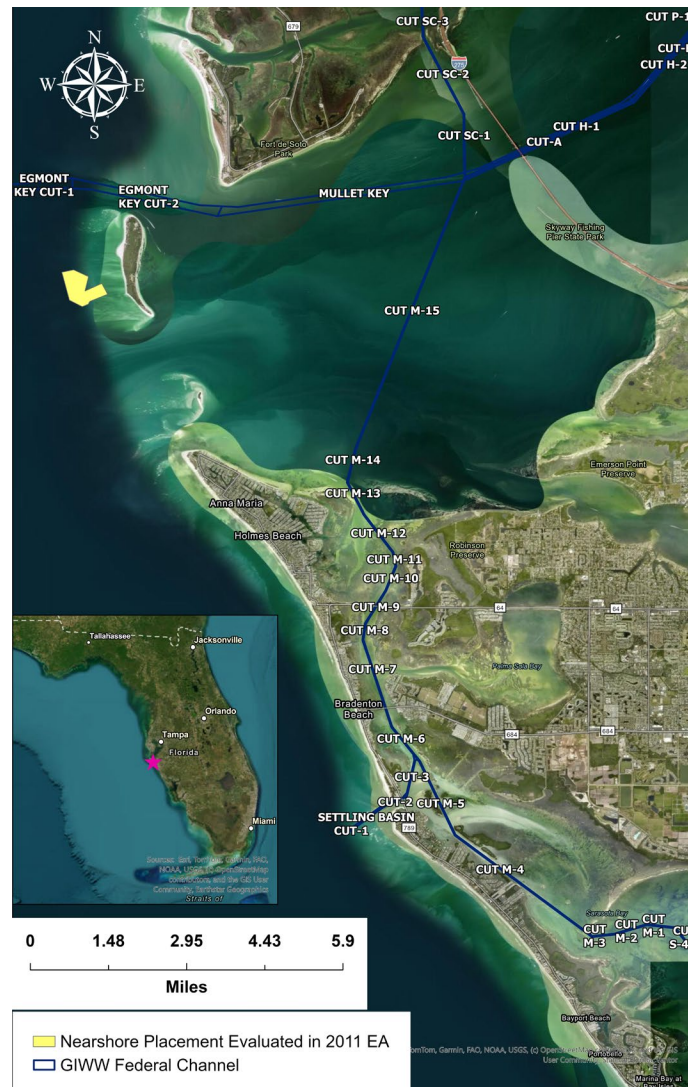


Figure 3-1: Nearshore Placement Site at Egmont Key as Evaluated in 2011 EA

3.1.2 Alternative 2: Dredging of Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, and Longboat Pass Cuts 2 and 3 With Placement in the Nearshore of Egmont Key and Dredge Hole Filling

Alternative 2 builds on Alternative 1 by adding GIWW Cuts M-4, M-7, M-8, M-9, and M-13 within Manatee County to the cuts discussed in Alternative 1 (Cuts M-5, M-12, M-14, and LP-2 and LP-3). In addition to the previously used nearshore placement site at Egmont Key in Hillsborough County, dredged material may also be placed in a nearby dredge hole in Manatee County, a secondary placement site in the nearshore of Egmont Key in Hillsborough County, or a tertiary placement site in the nearshore of Egmont Key (also in Hillsborough County), as shown in [Figure 3-1](#), [Figure 3-2](#), and [Figure 3-3](#). The tertiary site is an expansion of the previously permitted nearshore placement site, so use of this expanded site will require obtaining a new Joint Coastal Permit (JCP) from FDEP.



Figure 3-2: Expanded Version of Previously Evaluated Nearshore Placement and Proposed New Site for Nearshore Placement at Egmont Key



Figure 3-3: Proposed site for dredge hole filling, adjacent to Cut M-6 of the GIWW.

3.1.3 Alternative 3: Dredging of Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, and Longboat Pass Cuts 2 and 3 With Placement in Nearshore of Egmont Key

Alternative 3 includes maintenance dredging the same cuts described in Alternative 2 (Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, and M-14, along with LP-2 and LP-3). Dredged material placement would only occur in the nearshore sites at Egmont Key as described in Alternative 2. (See [Figure 3-1](#) and [Figure 3-2](#)).

3.1.4 Alternative 4: Dredging of Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, and Longboat Pass Cuts 2 and 3 With Beach Placement

Alternative 4 includes maintenance dredging the same cuts described in Alternative 2 (Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, and M-14, along with LP-2 and LP-3). Dredged material would be placed along the shoreline of Longboat Key, which is approximately 7,600 feet south of Longboat Pass, between Florida Department of Environmental Protection (FDEP) Range Monuments (R) R-44 and R-51 (shown in [Figure 3-4](#)). Placement in this portion of the shoreline was previously analyzed in the 2011 EA but was not selected as the Preferred Alternative at that time due to the proximity of sensitive resources (e.g., hardbottom habitat). Beach placement at Longboat Key would occur within the Manatee County section of the Key only.

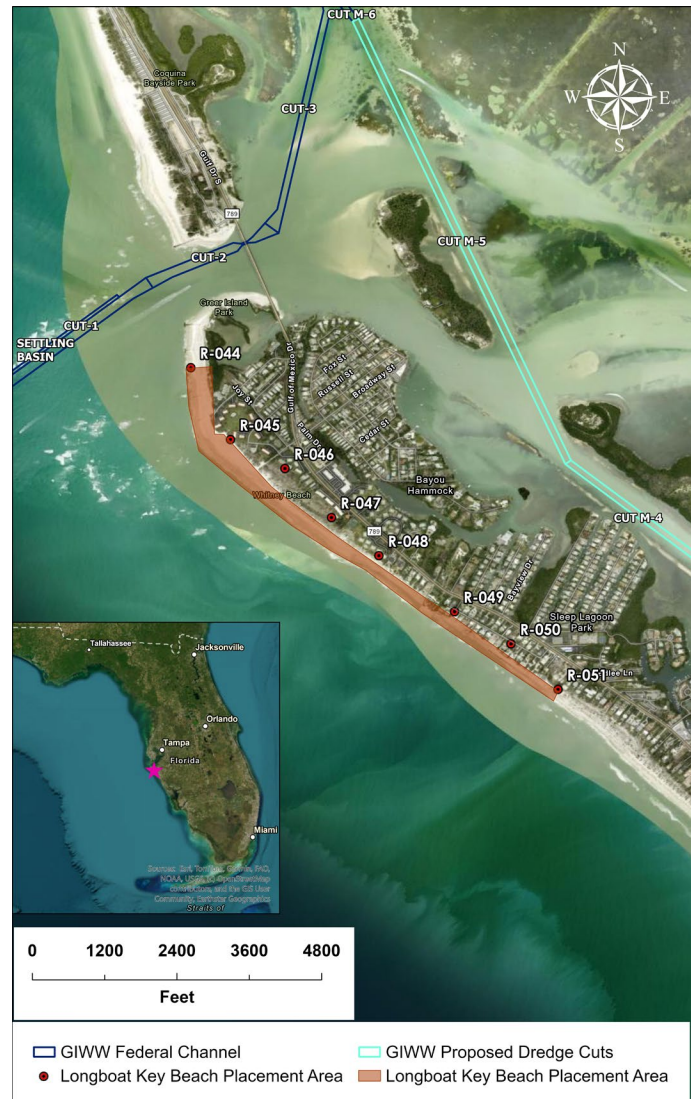


Figure 3-4: Longboat Key Beach Placement Area

3.2 ALTERNATIVES ELIMINATED FROM DETAILED EVALUATION

3.2.1 DREDGING WITH PLACEMENT IN A DREDGED MATERIAL MANAGEMENT AREA (UPLAND PLACEMENT)

Dredging of GIWW Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, and M-14 with placement into an upland placement site or dredged material management area (DMMA) was eliminated from further analysis as there are no existing DMMA within the project vicinity. For future consideration, DMMA would require construction near the project area at the cost of the non-federal sponsor. Any constructed DMMA would then require monitoring and maintenance to ensure capacity is available when needed, including offloading of material by the non-federal sponsor.

3.2.2 DREDGING WITH PLACEMENT IN AN OFFSHORE DREDGED MATERIAL DISPOSAL SITE (ODMDS)

Dredging of GIWW Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, and M-14 with placement in an offshore dredged material disposal site (ODMDS) was eliminated from further analysis as the

nearest ODMDS is located in the Tampa area, and the cost of transporting dredged material to that site would be prohibitively high due to the distance between the dredging areas and the disposal site. For future consideration, an ODMDS could potentially be designated and permitted closer to the project area at the cost of the non-federal sponsor.

3.3 FINAL ARRAY OF ALTERNATIVES

The following alternatives described above are being carried forward for additional analysis in this SEA. No Action (Alternative 1), dredging with nearshore placement and dredge hole filling (Alternative 2), dredging with nearshore placement (Alternative 3), and dredging with beach placement (Alternative 4).

4 ENVIRONMENTAL EFFECTS

This section is the scientific and analytic basis for the comparisons of the alternatives carried forward. This section is organized by resource topic as described in Section 2 (Existing Conditions) and presents the analysis of potential effects of each alternative described within each resource section. This evaluation includes determining anticipated direct, indirect, and reasonably foreseeable effects of the alternatives described in Section 3 (Alternatives) on the existing conditions described in Section 2 (Existing Conditions), relative to the No Action Alternative (Alternative 1) described in Section 3 (Alternatives).

Effects or impacts are changes to the human environment from alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the alternatives. The potential effects of the alternatives are described in this SEA using the following terms:

- **Beneficial:** A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.
- **Adverse:** A change that moves the resource away from a desired condition or detracts from its appearance or condition.
- **Direct:** Caused by the agency action and occurring at the same time and place as the action.
- **Indirect:** Caused by the agency action but occurring at either a later time or at a place that is farther removed (i.e., outside of the place where the action occurred).

Intensity, or severity of the potential impact, was rated as follows:

- **Negligible Effect:** Change to the resource or discipline is barely perceptible, not measurable, and confined to a small area.
- **Minor Effect:** Change to the resource or discipline is perceptible, measurable, and localized.
- **Moderate Effect:** Change is clearly detectable and could have appreciable effect on the resource or discipline; or the effect is perceptible and measurable throughout the project area.
- **Major Effect:** Change to the resource or discipline is substantial, highly noticeable, and would occur on a regional scale.

Duration of the potential impact was rated as follows:

- **No Duration:** No effect.
- **Temporary:** Effects generally occur during construction by the end of which the resources recover their pre-construction conditions.
- **Short-term:** Effects generally occur during construction and for a limited time thereafter, generally less than two years, by the end of which the resources recover to their pre-construction conditions.
- **Long-term:** Effects last beyond the construction period, and the resources may not regain their preconstruction conditions for a longer period.

A wide range of hydraulic and mechanical dredge techniques, equipment, and associated characteristics were described in the Corps' EM 1110-2-5025, Engineering and Design, Dredging and Dredged Material Management, 31 July 2015, and were analyzed within the project's previous NEPA (2011 EA). The analysis previously conducted for the types of dredges (e.g., hopper dredges versus cuttersuction) and dredging methodologies (i.e., mechanical, hydraulic) is expected to be the same; therefore, that analysis is herein incorporated, where applicable. (See Section 2, Alternatives, in the 2011 EA). In this SEA, analysis is focused on the changes since

the previous EA. Changes include addition of cuts and placement sites; therefore, effects of dredging analyzed in this SEA are for the addition of Cuts M-4, M-7, M-8, M-9, and M-13, and the effects of placement analyzed in this SEA are for the addition of nearshore placement sites at Egmont Key. The 2011 EA provides analysis for dredging of Cuts M-5, M-12, M-14, and LP-2 and LP-3, with placement in the nearshore of Egmont Key or along the beach of Longboat Key between R-44 and R-51. The 2011 EA analysis, where relevant and applicable, is incorporated herein, as noted in the pertinent sections of this chapter.

4.1 T&E SPECIES

ALTERNATIVE 1: DREDGING OF CUTS M5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

The Corps' effect determinations to T&E species under Alternative 1 are shown in [Table 4-1](#):

Table 4-1: Corps' effect determinations for T&E species listed under the ESA.

Common Name	Scientific Name	Biological Opinion	Coordinating Agency	Corps' Effect Determination
Reptiles				
Green sea turtle ¹	<i>Chelonia mydas</i>	GRBO & SPBO	USFWS & NMFS	MANLAA
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	GRBO & SPBO	USFWS & NMFS	MANLAA
Loggerhead sea turtle ^D	<i>Caretta caretta</i>	GRBO & SPBO	USFWS & NMFS	MANLAA
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	GRBO & SPBO	USFWS & NMFS	MANLAA
Fish and Elasmobranch				
Smalltooth sawfish	<i>Pristis pectinata</i>	GRBO	NMFS	MANLAA
Mammals				
Florida manatee ^D	<i>Trichechus manatus latirostris</i>	SPBO	USFWS	MANLAA, NLAM
Birds				
Piping Plover	<i>Charadrius melodus</i>	P3BO	USFWS	MANLAA
Rufa Red Knot ^P	<i>Calidris canutus rufa</i>	2026 Informal Consult	USFWS	MANLAA, NLAM

¹ North Atlantic distinct population segment (DPS); ^D Designated Critical Habitat (DCH); ^P Proposed Critical Habitat (PCH)

May Affect, but is not Likely to Adversely Affect (MANLAA)

Not Likely to Adversely Affect (NLAA)

Not Likely to Adversely Modify (NLAM)

The analysis for ESA-listed species remains the same as discussed in the 2011 EA (Section 4.6, Wildlife Resources and consultation documents in appendices), because this alternative assumes that no new actions would take place. Therefore, status quo would continue, and all work would continue to be covered by previously completed consultations as documented in the 2011 EA. That analysis is summarized here: the action of maintenance dredging may temporarily affect foraging and migration routes of swimming sea turtles, smalltooth sawfish, and manatees due to presence of the dredge, noise, and/or vibrations. These effects are anticipated to be minor and end with cessation of dredging activities.

Due to the shallow depth of the GIWW Federal channel (10'+2'), commercial hopper dredge drafts exceed the available depth and cannot be used for operations and maintenance dredging for this project; however, modified hopper dredges, such as the MURDEN and Miss Katie, do not take turtles due to the small draghead size. Effects to piping plover and rufa red knot may occur due to construction dredging impacts to foraging areas from the presence of the dredge within close proximity to foraging areas, transit to and from placement, and from placement in the nearshore where birds may be foraging. The project would implement all applicable Terms and Conditions (T&Cs) and Reasonable and Prudent Measures (RPMs) of the NMFS' GRBO, USFWS SPBO and P3BO during construction to ensure adverse effects to listed species are minimized to the maximum extent practicable. Additionally, the USFWS' 2011 Standard In-Water Manatee Construction Conditions would be implemented during construction to prevent potential effects to manatees during dredging.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Under Alternative 2, the Corps' effect determinations to T&E species are expected to be the same as Alternative 1 (shown in [Table 4-1](#)). Even though there are additional cuts included in Alternative 2 compared to Alternative 1 which would slightly increase the dredging duration, the effects of dredging are substantially similar due to the same activity occurring within close proximity to the cuts evaluated previously. Effects of placement in the nearshore of Egmont Key would also be the same. Under Alternative 2, consultations would be updated in order to address previously unevaluated species and/or project areas. Filling of the dredge hole is expected to have temporary, minor impacts to swimming sea turtles, manatees, and smalltooth sawfish due to the disturbance of swimming patterns caused by increased noise, presence of pipelines, offloading of material, and/or vibrations.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Under Alternative 3, the Corps' effect determinations to T&E species are expected to be the same as Alternative 1 (shown in [Table 4-1](#)), with updated consultations as discussed in Alternative 2. The effects for placement of material would be the same as those described in Alternative 1 whereas the effects of dredging the additional cuts would be the same as those described in Alternative 2.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Under Alternative 4, the Corps' effect determinations to T&E species are expected to be the same as Alternative 1 (shown in [Table 4-1](#)), with updated consultations as discussed in Alternatives 2 and 3. Effects from beach placement remain the same as evaluated in the 2011 EA. A summary is provided here: Temporary, minor effects to piping plover and rufa red knot foraging are possible due to beach placement. Activities on the beach may interrupt foraging because of presence of equipment, noise, and vibrations. These impacts are expected to end with cessation of placement activities and demobilization of equipment. Nesting sea turtles are expected to be adversely

affected by beach placement due to the presence of equipment, noise, and vibrations. Placement activity may discourage nesting by sea turtles along Longboat Key within the placement area.

4.2 ESSENTIAL FISH HABITAT (EFH)

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Under Alternative 1, minor and insignificant effects to EFH are expected during dredging and placement activities as described in the 2011 EA. EFH will be disturbed both directly and indirectly due to turbidity. It is expected that these effects would subside with the cessation of dredging. Indirect effects are expected to be minor and insignificant until particulates and sediments are no longer suspended in the water column and settle to the bottom. Seagrasses are located in GIWW Cuts M-5 and M-14 as discussed in the 2011 EA. The mitigation proposed was not completed; therefore, impacts to seagrasses resulting from the previous dredging of Cut M-5 and M-14 will be mitigated through the filling of a dredge hole as described in Appendix E, Mitigation Plan. Approximately 0.34 acres were impacted during the previous dredging, requiring 0.65 acres of mitigation in order to adequately compensate for the loss of seagrass colonies, as determined by the Uniform Mitigation Assessment Methodology (UMAM) assessment.

Placement of dredged material in the nearshore is expected to have minor and insignificant adverse effects on EFH while the material is placed and as it settles into equilibrium through currents and wave action. Once the placed material settles, it is expected that there may be moderate beneficial effects to EFH as there will be more material for burrowing, nesting, laying of eggs, and hiding. With a more elevated bottom, more submerged aquatic vegetation may also colonize the area, providing additional essential fish habitat. No hardbottom habitat is located within or adjacent to the proposed nearshore placement area nor will placement here conflict with the hardbottom creation area proposed as part of the Tampa Harbor Navigation Improvement project.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Seagrasses are present in GIWW Cut M-4 and will be impacted by maintenance dredging. Mitigation will be provided to offset impacts to GIWW Cuts M-5, M-14, and M-4 as described in Appendix E, Mitigation Plan. In addition to the mitigation acreage discussed for Alternative 1, Alternative 2 includes compensation for impacts to seagrasses for GIWW Cut M-4, an additional 0.02 acres of impacts requiring 0.016 acres of mitigation as determined by the UMAM. Effects of dredging GIWW Cuts M-4 and M-13 are anticipated to be substantially similar to those described in the 2011 EA due to their proximity to Cuts M-5, M-12, and M-14. Dredge hole placement is expected to have substantially similar effects to EFH as those of nearshore placement, and are therefore considered to be minor and insignificant. In addition, it is expected that raising the elevation of the dredge hole will encourage submerged aquatic vegetation to colonize the area, reducing the patchiness of surrounding vegetation. Mitigation for impacts to seagrasses is further discussed in the mitigation plan in Appendix E. Placement in the dredge hole is expected to encourage natural recruitment of existing seagrasses by restoring the elevation to that of the surrounding area where seagrasses already exist. Once the placed material settles, it is expected that there may be moderate beneficial effects to EFH as discussed in Alternative 1.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Under Alternative 3, dredging effects to EFH is expected to be the same as those described for Alternative 2. The effects of placement in the nearshore of Egmont Key are also the same as Alternative 2. Compensatory mitigation for impacts to seagrasses from the previous dredging event (Cuts M-5 and M-14), as well as the additional impacts for Cut M-4, are the same as discussed for Alternative 2.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Under Alternative 4, effects to EFH is expected to be substantially similar to those of Alternatives 1, 2, and 3. Effects from beach placement on EFH are expected to be less than those previously evaluated due to beach placement instead of nearshore or dredge hole placement. Ephemeral hardbottom habitat located in vicinity of the beach placement area would be avoided. Compensatory mitigation for impacts to seagrasses from the previous dredging event (Cuts M-5 and M-14), as well as the additional impacts for Cut M-4, are the same as discussed for Alternative 2.

4.3 WATER QUALITY**ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)**

Under the No Action Alternative, dredging operations would result in minor and temporary changes to water quality. Turbidity levels in the immediate dredging areas would be elevated above ambient conditions during dredging within the designated mixing zone. Visible turbidity plumes at the water surface are expected in the immediate vicinity of the dredging operation. Elevated turbidity levels are expected to dissipate rapidly, returning to background levels within a short period of time. Turbidity will be monitored throughout project construction and will not exceed state water quality criteria.

Turbidity levels may temporarily increase in the nearshore area along Egmont Key during placement of dredged material. These increases would be short-term and localized, and no long-term adverse impact on water quality is expected to occur as a result of the no action alternative. Turbidity will be monitored throughout project construction and will not exceed state water quality criteria.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Under Alternative 2, dredging effects to water quality are expected to be substantially similar as those described for Alternative 1 except that this alternative includes additional cuts to be dredged resulting in a longer dredging duration. The effects of placement in the nearshore of Egmont Key are also the same as Alternative 1 but would include a larger volume of material being placed due to the inclusion of additional cuts being dredged. Placement in the dredge hole is expected to

have substantially similar effects to those described for placement in the nearshore at Egmont Key.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Under Alternative 3, dredging effects to water quality are the same as Alternative 2. The effects of placement in the nearshore of Egmont Key are also the same as Alternative 2.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Under Alternative 4, dredging effects to water quality are expected to be the same as those described for Alternative 2.

Turbidity levels may temporarily increase in the nearshore area at the beach placement site while dredge material is placed. No long-term adverse impact on water quality is expected to occur as a result of Alternative 4. Turbidity will be monitored throughout project construction and will not exceed state water quality criteria.

4.4 SEDIMENTS/GEOLOGY/BATHYMETRY

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Placement of dredged material in the nearshore of Egmont Key would retain sediment within the coastal system. Provided that the dredged material meets beach or nearshore compatibility requirements, minimal to no alteration of sediment characteristics is anticipated.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

The effects are substantially similar to Alternative 1.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

The effects are substantially similar to Alternative 1.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

The effects are substantially similar to Alternative 1.

4.5 CLIMATOLOGY

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Effects to the regional climatology are expected to be negligible.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Effects to the regional climatology are expected to be minor as there is an increase in dredging quantities, cuts, and distances to placement sites.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Effects to the regional climatology are expected to be minor as there is an increase in dredging quantities, cuts, and distances to placement sites.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Effects to the regional climatology are expected to be minor as there is an increase in dredging quantities, cuts, and distances to placement sites.

4.6 AIR QUALITY

CO₂ is a reference gas, as it is the GHG emitted in the highest volume. The effect of other (non-CO₂) GHGs on global warming is the product of the mass of their emissions and their global warming potential (GWP). The GWP of a gas indicates how much the gas is predicted to contribute to global warming relative to the amount of warming that would be predicted to be caused by the same mass of CO₂. For example, CH₄ and N₂O are substantially more potent GHGs than CO₂, with GWPs of 25 and 298, respectively. Net GHG emissions were calculated using the US Army Corps of Engineers Project Emissions Analysis Tool (PEAT) version 2.2. The PEAT model calculates net emissions based on short-term construction emissions, long-term operational emissions, and the long-term effects of carbon sequestration from wetland restoration. The PEAT model was developed by the USACE Air Quality Analysis Sub-Community of Practice (AQ Sub-CoP) to quantify all net GHG and air pollutant effects relevant to USACE Civil Works and Regulatory projects. PEAT leverages the benefits of pre-existing models by transitioning output data from publicly available air pollutant and GHG emissions models, then integrates that data to compute net effects. The USACE ECO-PCX certified PEAT for national use in April 2025. The full GHG analysis can be found in the Air Quality Appendix ([See Appendix F](#)). The results are discussed below.

CO₂ emissions are highly correlated to fuel use. Approximately 99% of the carbon in oil and oil products is emitted in the form of CO₂ (USEPA, 2005). Dredges and upland construction equipment typically burn diesel fuel. Emissions factors unique to each equipment type were used to calculate the anticipated GHG emissions, specifically CO₂, CH₄, and N₂O. Emissions factors

can be found in EPA's GHG Emissions Factors Hub (<https://www.epa.gov/climateleadership/ghg-emission-factors-hub>). The emissions for each type of GHG were standardized to CO₂e using the equation below.

$$CO_2e = xCO_2 + yN_2O + zCH_4$$

Where:

X = 100-year global warming potential of carbon monoxide or carbon dioxide = 1

Y = 100-year global warming potential of nitrous oxide = 298

Z = 100-year global warming potential of methane = 25

Fuel quantities were estimated for this project by the Cost Engineering Branch of the Jacksonville District. Construction equipment is assumed to be both land and water-based.

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Construction-Related Greenhouse Gas Emissions

The No Action Alternative would continue the status quo. Only water-based construction emissions were considered. There would be temporary minor adverse effects to air quality. Temporary degradation of air quality would occur during construction from the exhaust emissions correlated with the dredge and associated support equipment. However, overall emissions associated with the construction equipment would be minor and winds would be expected to disperse any pollutant released into the atmosphere. Any impact to air quality would cease following construction.

Channel dredging and material placement is anticipated to take less than one year and result in a temporary increase in GHG emissions during that time, consisting primarily of CO₂ generated by marine vessels burning diesel fuel. Total construction emissions under Alternative 1 are estimated to be 979.80 MT CO₂e. Estimated fuel quantities and GHG emissions for Alternative 1 are summarized in Table 1 of the Air Quality Appendix.

Operation and Maintenance Greenhouse Gas Emissions

Based on shoaling rates, channel dredging will be required approximately every five years. The dredge volume and 5-year interval are assumed to remain constant over the 50-year period of analysis. Nine dredging events are anticipated to occur in the 50 years following the initial dredging event. Total GHG emissions for 50 years of O&M under Alternative 1 are estimated to be 8,818.20 MT CO₂e. Estimated fuel quantities, annual and lifetime O&M GHG emissions for Alternative 1 are summarized in Table 2 of the Air Quality Appendix.

Wetland Emissions and Carbon Sequestration

Wetlands play an important and complex role in the global carbon cycle, contributing to GHG regulation through carbon sequestration. Wetlands may serve as CO₂ sinks because they store large amounts of carbon in aboveground biomass (e.g., forested wetlands) and soils (e.g., peatlands and coastal marshes); however, wetlands can also emit significant quantities of CH₄, and N₂O to the atmosphere. The PEAT model calculates different rates of GHG production and sequestration based on the classification of the aquatic ecosystem that is created or restored. No wetland effects are anticipated under Alternative 1.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING**Construction-Related Greenhouse Gas Emissions**

Under Alternative 2, only water-based construction emissions were considered. There would be temporary minor adverse effects to air quality. Temporary degradation of air quality would occur during construction from the exhaust emissions correlated with the dredge and associated support equipment. However, overall emissions associated with the construction equipment would be minor and winds would be expected to disperse any pollutant released into the atmosphere. Any impact to air quality would cease following construction.

Channel dredging and material placement is anticipated to take less than one year and result in a temporary increase in GHG emissions during that time, consisting primarily of CO₂ generated by marine vessels burning diesel fuel. Total construction emissions under Alternative 2 are estimated to be 2,605.85 MT CO₂e. Estimated fuel quantities and GHG emissions for Alternative 2 are summarized in Table 3 of the Air Quality Appendix.

Operation and Maintenance Greenhouse Gas Emissions

Based on shoaling rates, channel dredging will be required approximately every five years. The dredge volume and 5-year interval are assumed to remain constant over the 50-year period of analysis. Nine dredging events are anticipated to occur in the 50 years following the initial dredging event. Total GHG emissions for 50 years of O&M under Alternative 2 are estimated to be 23,452.67 MT CO₂e. Estimated fuel quantities, annual and lifetime O&M GHG emission for Alternative 2 are summarized in Table 4 of the Air Quality Appendix.

Wetland Emissions and Carbon Sequestration

No wetland effects are anticipated under Alternative 2.

Net Greenhouse Gas Emissions

Gross GHG emissions include the sum of construction and O&M emissions. Net emissions are calculated by subtracting the gross emissions for the No Action Alternative from the gross emissions for Alternative 2. Net emissions for Alternative 2 were calculated using the PEAT model and were estimated to be 16,260.55 MT CO₂e. Net emissions for Alternative 2 are summarized in Table 5 of the Air Quality Appendix.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY**Construction-Related Greenhouse Gas Emissions**

Under Alternative 3, only water-based construction emissions were considered. There would be temporary minor adverse effects to air quality. Temporary degradation of air quality would occur during construction from the exhaust emissions correlated with the dredge and associated support equipment. However, overall emissions associated with the construction equipment would be minor and winds would be expected to disperse any pollutant released into the atmosphere. Any impact to air quality would cease following construction.

Channel dredging and material placement is anticipated to take less than one year and result in a temporary increase in GHG emissions during that time, consisting primarily of CO₂ generated by marine vessels burning diesel fuel. Total construction emissions under Alternative 3 are estimated to be 2,605.85 MT CO₂e. Estimated fuel quantities and GHG emissions for Alternative 3 are summarized in Table 6 of the Air Quality Appendix.

Operation and Maintenance Greenhouse Gas Emissions

Based on shoaling rates, channel dredging will be required approximately every five years. The dredge volume and 5-year interval are assumed to remain constant over the 50-year period of analysis. Nine dredging events are anticipated to occur in the 50 years following the initial dredging event. Total GHG emissions for 50 years of O&M under Alternative 3 are estimated to be 23,452.67 MT CO₂e. Estimated fuel quantities, annual and lifetime O&M GHG emission for Alternative 3 are summarized Table 7 of the Air Quality Appendix.

Wetland Emissions and Carbon Sequestration

No wetland effects are anticipated under Alternative 3.

Net Greenhouse Gas Emissions

Gross GHG emissions include the sum of construction and O&M emissions. Net emissions are calculated by subtracting the gross emissions for the No Action Alternative from the gross emissions for Alternative 3. Net emissions for Alternative 3 were calculated using the PEAT model and were estimated to be 16,260.55 MT CO₂e. Net emissions for Alternative 3 are summarized in Table 8 of Air Quality Appendix.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Construction-Related Greenhouse Gas Emissions

Under Alternative 4, only water-based construction emissions were considered. There would be temporary minor adverse effects to air quality. Temporary degradation of air quality would occur during construction from the exhaust emissions correlated with the dredge and associated support equipment. However, overall emissions associated with the construction equipment would be minor and winds would be expected to disperse any pollutant released into the atmosphere. Any impact to air quality would cease following construction.

Channel dredging and material placement is anticipated to take less than one year and result in a temporary increase in GHG emissions during that time, consisting primarily of CO₂ generated by marine vessels burning diesel fuel. Total construction emissions under Alternative 4 are estimated to be 3,804.60 MT CO₂e. Estimated fuel quantities and GHG emissions for Alternative 4 are summarized in Table 9 of the Air Quality Appendix.

Operation and Maintenance Greenhouse Gas Emissions

Based on shoaling rates, channel dredging will be required approximately every five years. The dredge volume and 5-year interval are assumed to remain constant over the 50-year period of analysis. Nine dredging events are anticipated to occur in the 50 years following the initial dredging event. Total GHG emissions for 50 years of O&M under Alternative 4 are estimated to be 34,241.44 MT CO₂e. Estimated fuel quantities, annual and lifetime O&M GHG emission for Alternative 4 are summarized Table 10 of the Air Quality Appendix.

Wetland Emissions and Carbon Sequestration

No wetland effects are anticipated under Alternative 4.

Net Greenhouse Gas Emissions

Gross GHG emissions include the sum of construction and O&M emissions. Net emissions are calculated by subtracting the gross emissions for the No Action Alternative from the gross emissions for Alternative 4. Net emissions for Alternative 4 were calculated using the PEAT model and were estimated to be 28,213.29 MT CO_{2e}. Net emissions for Alternative 4 are summarized in Table 11 of Air Quality Appendix.

4.7 TRIBAL NATIONS

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Alternative 1 includes dredging Cuts M-5, M-12, M-14, LP-2 and LP-3, with placement in the nearshore placement area west of Egmont Key, as described in the 2011 EA. No effects were identified that may impact the ability of Tribal Nations to self-govern or maintain self-sufficiency in the implementation of this alternative. The placement areas near Egmont Key are not sufficiently close to result in a beneficial or adverse effect to this part of Native American history.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Alternative 2 includes dredging Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, LP-2 and LP-3, with placement in the dredge hole or in the expanded nearshore placement areas west of Egmont Key described in the 2011 EA, or in a new tertiary nearshore placement area west of Egmont Key. Same effects as Alternative 1.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Alternative 3 includes dredging Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, LP-2 and LP-3, with placement in two nearshore placement areas west of Egmont Key, a portion of which may overlap the placement area described in Alternative 1. Same effects as Alternative 1.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Alternative 4 includes dredging Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, LP-2 and LP-3, with placement in the nearshore placement area located south of Longboat Pass adjacent to Whitney Beach. No tribal resources have been identified in the project area.

4.8 CULTURAL RESOURCES

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Alternative 1 includes dredging Cuts M-5, M-12, M-14, LP-2 and LP-3, with placement in the nearshore placement area west of Egmont Key, as described in the 2011 EA. While the proposed

cuts for dredging have been previously surveyed and potentially significant submerged anomalies investigated by diver identification, the placement of dredged material in the nearshore placement areas has not previously been subject to cultural resource assessment survey. As such the Corps would conduct such survey prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United State Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021) Programmatic Agreement (see Appendix). No adverse effects to historic properties are anticipated contingent on maintenance of avoidance buffers on any identified historic properties.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Alternative 2 includes dredging Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, LP-2 and LP-3, with placement in the dredge hole, in a secondary nearshore placement west of Egmont Key that overlaps with the area described in the 2011 EA, or in a new tertiary nearshore placement area west of Egmont Key. The proposed cuts for dredging have been previously surveyed and potentially significant submerged anomalies investigated by diver identification. The SHPO previously concurred with the Corps' determination that placement in the dredge hole would have no effect to historic properties. However, none of the nearshore placement areas west of Egmont Key have previously been subject to cultural resource assessment survey. As such the Corps would conduct such survey prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United State Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021) Programmatic Agreement (see Appendix). No adverse effects to historic properties are anticipated contingent on maintenance of avoidance buffers.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Alternative 3 includes dredging Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, LP-2 and LP-3, with placement in two nearshore placement areas west of Egmont Key, a portion of which may overlap the placement area described in Alternative 1. While the proposed cuts for dredging have been previously surveyed and potentially significant submerged anomalies investigated by diver identification, the two nearshore placement areas have not previously been subject to cultural resource assessment survey. As such the Corps would conduct such survey prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United State Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection*

Programs (2021) Programmatic Agreement (see Appendix). No adverse effects to historic properties are anticipated contingent on maintenance of avoidance buffers.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Alternative 4 includes dredging Cuts M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, LP-2 and LP-3, with placement in the nearshore placement area located south of Longboat Pass adjacent to Whitney Beach. The cuts proposed for dredging have been previously surveyed. As the Longboat Pass placement area has been previously surveyed, this Alternative will have no adverse effect to historic properties, provided that all avoidance buffers are maintained.

4.9 SOCIOECONOMICS ENVIRONMENT

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Under Alternative 1, socioeconomics may be temporarily impacted during dredging and placement activities due to the presence of dredging and placement equipment. As the channel may be temporarily impeded while the dredge is present and pipelines from the dredge to the placement site may also temporarily impede the channel during dredging and placement, it is expected there may be temporary impacts to socioeconomics at the local boat piers, hotels, and nature preserves along the waterway. The county relies on tourism and the natural environment for a significant portion of its economy, so temporary impacts to the area from construction would also impact the local economy in the short-term.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Under Alternative 2, effects to socioeconomics are expected to be substantially similar to those of Alternative 1. The effects of placement at the dredge hole are anticipated to be substantially similar to those of nearshore placement at Egmont Key. There may be additional temporary impacts to socioeconomics from dredge hole filling as it may reduce local fishing activities using the dredge hole as a deep-water fishing area. These are expected to be temporary as there is deep-water fishing available nearby and any displaced fish are expected to travel to the nearby deep-water areas. Once the fish have settled into the nearby deep-water areas, fishing impacts are expected to cease, and the local economic impact is also expected to cease.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Under Alternative 3, effects to socioeconomics are expected to be substantially similar to those of Alternative 1.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Under Alternative 4, effects to socioeconomics are expected to be substantially similar to those of Alternative 1. Construction and placement are expected to have temporary impacts to the local economy as beach recreation activities would be impacted in the short-term by the presence of dredging and placement equipment. Once construction is complete, it is expected that there may be improvements to the local economy as the beach would be increased in size and a healthier beach would encourage more activity for recreation, positively influencing the local economy.

4.10 NAVIGATION & RECREATION

ALTERNATIVE 1: DREDGING OF CUTS M-5, M-12, M-14, AND LONGBOAT PASS CUTS 2 AND 3, WITH NEARSHORE PLACEMENT AT EGMONT KEY (NO ACTION)

Under Alternative 1, navigation and recreation are expected to be temporarily impacted during dredging and placement activities due to the presence of dredging and placement equipment. The channel may be temporarily impeded while the dredge and support vessels are present and pipelines from the dredge to the placement site may also temporarily impede the channel during dredging and placement. Following completion of dredging, the risks associated with shoaling would be reduced, resulting in safer depths for commercial and recreational navigation.

ALTERNATIVE 2: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY AND DREDGE HOLE FILLING

Under Alternative 2, effects to navigation and recreation are expected to be substantially similar to those of Alternative 1. Although Alternative 2 includes the addition of dredge hole placement, the effects of placement are anticipated to be substantially similar to those of nearshore placement at Egmont Key and will provide an opportunity for economic benefits. It is also possible that filling of the dredge hole may reduce recreational fishing for the area, as the dredge hole has been known to be used for this purpose. There are other opportunities for recreational fishing in deeper waters nearby, so it is reasonably expected that recreational fishers will travel to those locations following the filling of the dredge hole. Alternative 2 adds additional cuts for dredging compared to Alternative 1, which will provide the opportunity for additional economic benefits to accrue at those locations (including navigation and recreation). Therefore, based on the available information, it is reasonable to conclude that Alternative 2 is the most economically beneficial alternative.

ALTERNATIVE 3: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH PLACEMENT IN THE NEARSHORE OF EGMONT KEY

Under Alternative 3, effects to navigation and recreation are expected to be substantially similar to those previously discussed for Alternatives 1 and 2. The additional economic benefits associated with Alternative 2 would also accrue for Alternative 3, but without the dredge hole filling this alternative is likely to be less economically efficient.

ALTERNATIVE 4: DREDGING OF CUTS M-4, M-5, M-7, M-8, M-9, M-12, M-13, M-14, AND LONGBOAT PASS CUTS 2 AND 3 WITH BEACH PLACEMENT

Under Alternative 4, effects to navigation and recreation are expected to be substantially similar to those of Alternatives 1, 2, and 3, as previously discussed. In addition, placement at the beach

along Longboat Key may include minor temporary impacts to recreation on the beach. The placement of dredged material on the beach may temporarily displace recreational activities within the placement area. The impacts are expected to end with the cessation of placement. Recreation is likely to be improved by placement as a wider, more stable beach would provide additional area for recreational activity. The additional economic benefits associated with Alternative 2 would also accrue for Alternative 4, but without the dredge hole filling this alternative is likely to be less economically efficient.

5 PREFERRED ALTERNATIVE

This section compares the alternatives and provides the basis for the selection of the Preferred Alternative.

5.1 COMPARISON OF ALTERNATIVES AND SELECTION

As described in Chapter 4, the Corps examines both the context of the action and the intensity of the effect by considering duration, the extent to which an effect is adverse at some points in time, and/or beneficial in others, and whether the effect is direct or indirect. [Table 5-1](#) summarizes the major features and consequences of the proposed alternatives for comparison purposes. Section 4 Environmental Effects provides more detailed discussion of effects of the alternatives carried forward for detailed scientific analysis.

Table 5-1. Summary of direct and indirect effect compared between the project alternatives.

Environmental Factor / Resource	Alternative 1: No Action	Alternative 2: Dredging with placement in the nearshore of Egmont Key and dredge hole filling	Alternative 3: Dredging with placement in the nearshore of Egmont Key	Alternative 4: Dredging with beach placement
Threatened and Endangered (T&E) Sea turtles: Green (North Atlantic Distinct Population Segment), hawksbill, leatherback, loggerhead, and Kemp's ridley	Temporary, minor adverse impacts to sea turtles from dredging and placement activities. These effects are expected to end with cessation of dredging and placement activities.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1. Beach placement may temporarily affect sea turtle nesting within the placement area.
T&E Species: Smalltooth Sawfish	Temporary, minor adverse impacts to Smalltooth Sawfish from dredging and placement activities. These effects are expected to end with cessation of dredging and placement activities.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
T&E Species: Florida Manatee	Temporary, minor adverse impacts to manatees from dredging and placement activities. These effects are expected to end with cessation of dredging and placement activities.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
T&E Species: Piping Plover	Temporary, minor adverse impacts to piping plover from dredging and placement activities. These effects are expected to end with cessation of dredging and placement activities.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1. Beach placement may impact foraging activities near the placement area.

T&E Species: Rufa Red Knot	Temporary, minor adverse impacts to rufa red knot from dredging and placement activities. These effects are expected to end with cessation of dredging and placement activities.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1. Beach placement may impact foraging activities near the placement area.
Essential Fish Habitat	Temporary adverse effects to EFH from dredging due to direct and indirect impacts. Placement is expected to have temporary adverse effects to EFH during placement, however, improvements to EFH are expected once placement is completed.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1 for the dredge areas. Placement along the beach may have temporary impacts to ephemeral nearshore hardbottom habitat.
Water Quality	Temporary, minor, and localized adverse effect to water quality. Specifically, turbidity levels within the mixing zone would likely elevate above established background levels during dredging operations. Elevated turbidity levels are expected to dissipate rapidly, returning to background levels in a short time period after completion of dredging and placement activity.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.

Sediments/Geology/Bathymetry	Placement of dredged material in the nearshore of Egmont Key would retain sediment within the coastal system. Provided that the dredged material meets beach or nearshore compatibility requirements, minimal to no alteration of sediment characteristics is anticipated.	Same as Alternative 1.	Same as Alternative 1.	Placement of dredged material at the beach retains sediment within the coastal system. Provided that the dredged material meets beach compatibility requirements, minimal to no alteration of sediment characteristics is anticipated.
Climatology	Negligible effects.	Minor effects.	Same as Alternative 2	Same as Alternative 2. .
Air Quality	Temporary, minor adverse effects during construction due to emissions associated with construction equipment.	Same as Alternative 1. Closer placement areas for at least a portion of the work would mean a shorter duration and therefore less fuel use.	Same as Alternative 1. Closer placement areas for at least a portion of the work would mean a shorter duration and therefore less fuel use.	Same as Alternative 1. Closer placement areas for at least a portion of the work would mean a shorter duration and therefore less fuel use.
Tribal Nations	No effect.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
Cultural Resources	No adverse effect, provided cultural resources survey conducted and any avoidance buffers maintained during construction activities.	Same as Alternative 1.	Same as Alternative 1.	No adverse effect, provided avoidance buffers maintained during construction activities.

Socioeconomics	Temporary, minor, and localized adverse impacts to socioeconomics from dredging and placement activities. These are expected to cease with completion of construction.	Temporary, minor, and localized adverse impacts to socioeconomics from dredging and placement activities. These are expected to be short-term in relation to placement in the dredge hole. Additional cuts would likely be associated with Navigation and Recreation benefits.	Same as Alternative 1.	Same as Alternative 1. Beach placement may provide improvements to the local economy.
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5.2 PREFERRED ALTERNATIVE

Alternative 2 (dredging with placement in the nearshore of Egmont Key and dredge hole filling) is carried forward as the Preferred Alternative as this best meets the objectives for the Federal project and anticipated need for current and future maintenance events. The Preferred Alternative has the greatest economic benefit, maintains the authorized project purposes, and is the most engineeringly sound alternative while remaining environmentally acceptable. The Corps has determined that this proposed plan is not contrary to public interests and is carried forward as the Preferred Alternative. See [Section 3.1.2](#) for a detailed description of the Preferred Alternative.

5.3 UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

There are temporary, minor adverse effects to threatened and endangered species, essential fish habitat, water quality, sediments, air quality, navigation, and recreational resources from operations and maintenance dredging and placement of dredged material. These impacts are discussed in more detail in [Section 4](#) of this SEA.

5.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible commitment of resources is one in which the ability to use and/or enjoy the resource is lost forever. The use of fuel to power the dredge or any other necessary equipment for the proposed action is one of these commitments.

An irretrievable commitment of resources is one in which, due to decisions to manage the resource for another purpose, opportunities to use or enjoy the resource as they presently exist are lost for a period of time. The proposed action may temporarily disrupt navigation and nearby recreational activities from the presence of the dredge, any associated support vessels and equipment, and noise. This would be an irretrievable commitment of the navigational and recreational resources in the project area.

5.5 CONFLICTS AND CONTROVERSY

At this time there is no known conflict or controversy associated with the proposed action. The Corps continually strives to include all interested parties in its decision-making process and will continue to do so as issues arise. See Appendix A for all pertinent correspondence related to the proposed action.

5.6 MITIGATION, MONITORING, AND ADAPTIVE MANGEMENT

Compensatory mitigation of environmental impacts to submerged aquatic vegetation, notably seagrasses, will be required in order to comply with state water quality permitting requirements and Section 2036 of the Water Resources Development Act of 2007 (WRDA 2007). A mitigation plan is included in this SEA as Appendix E which discusses monitoring and adaptive management measures for the proposed compensatory mitigation.

6 ENVIRONMENTAL COMMITMENTS AND COMPLIANCE

This section documents compliance of the Preferred Alternative with NEPA and its implementing regulations.

6.1 ENVIRONMENTAL COMMITMENTS

The Corps will comply with all applicable conditions of SPBO, P3BO, informal consultation with USFWS, the USFWS' 2011 Standard Manatee Protection Measures for In-Water Work, GRBO, and Magnuson-Stevens Fishery Conservation and Management Act EFH Conservation Recommendations.

The Corps continues to refine the project's monitoring requirements and the minimization and avoidance measures that will be included in the dredging contract's specifications as described below. Continued coordination with regulating agencies and implementation of BMPs in future dredging projects will reduce any potentially adverse effects to the natural setting, particularly in regard to hardbottom and seagrass communities.

The Corps and its contractors commit to avoiding, minimizing, or mitigating for adverse effects during construction activities. The commitments described in [Table 6-1](#) will be included in the contract's specifications:

Table 6-1. Corps' environmental commitments.

Resource	Corps' Commitment
Fish and Wildlife Resources (Other than T&E Species)	The contractor will keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of, fish and wildlife. Environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract will be protected during the entire period of this contract. The contractor will confine activities to areas defined by the plans and specifications for the project. Resources that require specific attention along with measures for their protection will be listed in the contractor's Environmental Protection Plan (EPP) prior to the beginning of construction operations. The Corps will comply with the PDCs, T&Cs, RPMs, etc. associated with the GRBO, P3BO, SPBO, the USFWS' 2011 Standard Manatee Protection Measures for In-Water Work, and Magnuson-Stevens Fishery Conservation and Management Act EFH conservation recommendations, which will provide protection to those fish and wildlife resources not identified as T&E.

Resource	Corps' Commitment
T&E Species	Adverse effects to T&E species will be avoided and/or minimized. The Corps will comply with all requirements of any consultation documents associated with this project provided under the ESA from either USFWS or NMFS. Contractor personnel training will include instructing personnel about the potential presence of T&E species and marine mammals, the appropriate protocols if they are encountered, and advisement that there are civil and criminal penalties for harming, harassing, or killing T&E species and marine mammals. The Corps will include applicable RPMs and T&Cs of the SPBO and P3BO PDCs as well as applicable the GRBO in the project plans and specifications. (See SPBO (RPMs for navigation maintenance dredging with nearshore placement ("B"), P3BO (RPMs), and RPMs and T&Cs in the GRBO). In addition, the project will include the minimization measures provided in the 2011 USFWS' Standard Manatee Conditions for In-Water Work. Potential impacts to sea turtles and elasmobranchs could occur if a hopper dredge and/or capture trawling is used; however, implementation of standard protection conditions, BMPs, and GRBO T&Cs and RPMs will ensure that the potential adverse effects to these species are reduced to the maximum extent practicable. To further minimize risk to sea turtles, standard sea turtle protection conditions will be implemented, such as the use of a state-of-the-art rigid deflector draghead at all times, inflow screens, and/or monitoring of the operation. Endangered/Protected Species Observers (ESO/PSO's) will be present during any hopper dredging operations. The Contractor will describe T&E species protection criteria and how it will be implemented during the project in the EPP.

Resource	Corps' Commitment
Seagrasses	Adverse effects to seagrasses will be minimized to the maximum extent practicable. The Corps will comply with all requirements of any permits associated with this project issued by FDEP. The Corps will provide and require that the contractor use the most up to date seagrass map. This data is to be overlaid on the contractor's turbidity sampling map and submitted to FDEP weekly during project construction. Contractor personnel training will include instructing personnel about the presence of seagrasses and appropriate avoidance and minimization measures when encounters occur. In addition, this project will include mitigation measures provided in and required by the 2026 mitigation plan and the FDEP permit. An UMAM assessment has been conducted based on anticipated impacts and necessary offset measures.
Water Quality	The State of Florida water quality regulations require that water quality standards are not violated during construction operations. The standards require that turbidity will not exceed specified Nephelometric Turbidity Units (NTU's) above background within Outstanding Florida Waters (OFW) and within waters outside of the OFW. Should turbidity exceed state water quality standards as determined by monitoring, the contractors will be required to cease work until conditions return to normal. The Corps' contractor will train their personnel in all phases of environmental protection. The training will include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to ensure adequate and continuous environmental pollution control. Quality control and supervisory personnel will be thoroughly trained in the proper use of monitoring devices and abatement equipment and will be thoroughly knowledgeable regarding Federal, State, and local laws, regulations, and permits that pertain to the location the contractor is working. The Corps' contractor will implement design and procedure controls to prevent oil, fuel, or other hazardous substances from entering the water. All waste and refuse generated by project construction would be removed and properly disposed. The Corps' contractor will implement a spill contingency plan for hazardous, toxic, or petroleum material.

Resource	Corps' Commitment
Cultural Resources	Subject any previously non-surveyed areas to cultural resources assessment survey and maintain avoidance buffers of potentially significant historic properties. A post-review inadvertent discovery clause will be included in the project specifications. If any archaeological resources are uncovered during project construction activities, all activities will be halted immediately within the area and appropriate Corps staff notified. Additional work in the area of the discovery will be suspended at the site until compliance with all federal and state regulations is successfully completed and the Corps' staff members provide further directives.

6.2 ENVIRONMENTAL COMPLIANCE

This SEA has been prepared pursuant to NEPA and its implementing regulations. The status of the proposed project's compliance with environmental acts and E.O.s are provided in [Table 6-2](#).

The status of environmental compliance is described as follows:

Compliant: Meets all requirements of the statute for the current stage of planning (either pre-authorization or post-authorization).

In Progress: Not having met some of the requirements that normally are met in the current stage of planning or pending due notice of availability and comment public/agency comment period.

Not Applicable: No requirements for the statute required for the planning/ construction.

Table 6-2. Status of environmental compliance.

Reference	Law, Policy, and Regulations	Status
42 United States Code (U.S.C.) § 4321 <i>et seq.</i>	National Environmental Policy Act of 1969, as amended	Compliant
43 U.S.C. §§ 2101-2106	Abandoned Shipwrecks Act, as amended	Compliant
42 U.S.C. §§ 1996 and 1996a	American Indian Religious Freedom Act	Compliant
16 U.S.C. §§ 757a-757f	Anadromous Fish Conservation Act	Not Applicable
54 U.S.C. §§ 320301-320303 and 18 U.S.C. § 1866(b)	Antiquities Act of 1906, as amended	Compliant
54 U.S.C. §§ 312501-312508	Archaeological and Historic Preservation Act	Compliant
16 U.S.C. §§ 470aa-470mm	Archaeological Resources Protection Act, as amended	Compliant
16 U.S.C. 668-668d	Bald and Golden Eagle Protection Act	Compliant

Reference	Law, Policy, and Regulations	Status
42 U.S.C. § 7401 <i>et seq.</i>	Clean Air Act, as amended	Compliant
33 U.S.C. § 1341 and 33 U.S.C. § 1344(b)	Clean Water Act of 1972, Section 401 and Section 404(b)	In progress
16 U.S.C. § 3501 <i>et seq.</i>	Coastal Barrier Resources Act and Coastal Barrier Improvement Act of 1990	Compliant
16 U.S.C. § 1451 <i>et seq.</i>	Coastal Zone Management Act of 1972	Compliant
16 U.S.C. § 1531 <i>et seq.</i>	Endangered Species Act of 1973	In progress
16 U.S.C. §§ 1221-26	Estuary Protection Act of 1968	Compliant
16 U.S.C. § 4601-12 <i>et seq.</i>	Federal Water Project Recreation Act, as amended	Compliant
16 U.S.C. §§ 661-666c	Fish and Wildlife Coordination Act	In progress
7 U.S.C. § 4201 <i>et seq.</i>	Farmland Protection Policy Act	Not Applicable
16 U.S.C. § 1801 <i>et seq.</i>	Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended	In progress
16 U.S.C. § 1361 <i>et seq.</i>	Marine Mammal Protection Act of 1972, as amended	Compliant
33 U.S.C. § 1401 <i>et seq.</i>	Marine Protection, Research, and Sanctuaries Act	Not Applicable
16 U.S.C. §§ 703-712, 715	Migratory Bird Treaty Act and Migratory Bird Conservation Act	Compliant
54 U.S.C. § 300101 <i>et seq.</i>	National Historic Preservation Act of 1966, as amended	Compliant
25 U.S.C. § 3001 <i>et seq.</i>	Native American Graves Protection and Repatriation Act	Compliant
33 U.S.C. § 403	Rivers and Harbors Act of 1899, Section 10	Compliant
43 U.S.C. § 1301 <i>et seq.</i>	Submerged Lands Act of 1953	Compliant
42 U.S.C. § 4601 <i>et seq.</i>	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970	Not Applicable
16 U.S.C. § 1271 <i>et seq.</i>	Wild and Scenic River Act of 1968	Not Applicable
E.O. 11593	Protection and Enhancement of the Cultural Environment	Compliant
E.O. 11988	Floodplain Management	Compliant
E.O. 11990	Protection of Wetlands	Not Applicable
E.O. 13007	Indian Sacred Sites	Compliant

Reference	Law, Policy, and Regulations	Status
E.O. 13045	Protection of Children from Environmental Health Risks and Safety Risks	Compliant
E.O. 13089	Coral Reef Protection	Not Applicable
E.O. 13112	Invasive Species	Compliant
E.O. 13175	Consultation and Coordination with Indian Tribal Governments	Compliant
E.O. 13186	Responsibilities of Federal Agencies to Protect Migratory Birds	Compliant
Memorandum	Memorandum on Government-to-Government Regulations with Native American Tribal Governments	Compliant

6.2.1 NATIONAL ENVIRONMENTAL POLICY ACT OF 1969, AS AMENDED

This Act requires the opportunity for public participation and comment on Federal projects, and requires agencies to cooperate with other Federal agencies, State, and local governments, and to involve public stakeholders.

Environmental information on the project has been compiled, and this SEA and Proposed FONSI have been prepared and coordinated for public, state, and Federal agency review. The Preferred Alternative is in compliance with NEPA.

6.2.2 ABANDONED SHIPWRECKS ACT, AS AMENDED (43 USC 2101-2106)

The Abandoned Shipwreck Act (ASA) of 1987 establishes government ownership over the majority of abandoned shipwrecks located in waters of the United States of America and creates a framework within which shipwrecks are managed. Enacted in 1988, it affirms the authority of State governments to claim and manage abandoned shipwrecks on State submerged lands. It makes the laws of salvage and finds not apply to any shipwreck covered under the Act and asserts that shipwrecks are multiple-use resources. The Act covers abandoned shipwrecks that are embedded in submerged lands, abandoned shipwrecks that are embedded in coralline formations protected by a State, and abandoned shipwrecks that are on submerged lands and included in or determined eligible for inclusion in the National Register of Historic Places. State governments have title to shipwrecks located on State lands, the US Government has title to shipwrecks located on Federal lands, and Indian tribes have title to shipwrecks located on Indian lands. However, the US Government continues to hold title to sunken US warships and other shipwrecks entitled to Sovereign Immunity, no matter where the vessels are located. Such vessels are not affected by the statute.

In order to determine whether or not any abandoned shipwrecks are located with the project footprint, the Corps would conduct a submerged cultural resource assessment survey of those areas of the Preferred Alternative not previously surveyed prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). The Preferred Alternative is in compliance with this Act.

6.2.3 AMERICAN INDIAN RELIGIOUS FREEDOM ACT (42 U.S.C. §§ 1996 AND 1996A)

The American Indian Religious Freedom Act of 1978 (42 U.S.C. § 1996) establishes protection and preservation of Native Americans' rights of freedom of belief, expression, and exercise of traditional religions. These rights include, but are not limited to, access to sacred sites, freedom to worship through traditional ceremonial rites, and the possession and use of objects traditionally considered sacred by their respective cultures. The act requires policies of all governmental agencies to accommodate access to, and use of, Native American religious sites to the extent that the use is practicable and is consistent with an agency's essential missions.

Indian Tribes have not indicated the presence of any local sacred sites or identified any effects of this project to their ability to freely exercise religious practice.

In order to determine whether or not any Indian Sacred Sites are located with the project footprint, the Corps would conduct a submerged cultural resource assessment survey of those areas not previously surveyed prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). In addition, the Corps will consult with federally recognized tribes. The Preferred Alternative is in compliance with this Act.

6.2.4 ANADROMOUS FISH CONSERVATION ACT

The Anadromous Fish Conservation Act requires a commitment to the conservation, development, and enhancement of anadromous fishery resources.

The Preferred Alternative does not occur in an anadromous fish river or stream; therefore, no anadromous fish species are expected to be present. This Act is not applicable.

6.2.5 ANTIQUITIES ACT OF 1906, AS AMENDED (54 USC 320301-320303: MONUMENTS, RUINS, SITES, AND OBJECTS OF ANTIQUITY AND 18 USC 1866(B): HISTORIC, ARCHEOLOGIC, OR PREHISTORIC, ITEMS AND ANTIQUITIES)

The Antiquities Act of 1906 (54 U.S.C. §§ 320301–320303; Public Law 59-209) gives the President of the United States authority to create national monuments to protect important natural, cultural, or scientific features and resources. The act requires a permit be issued from the secretary of the department with land management responsibilities prior to any excavation of archaeological material. It further requires all material excavated as a result of an Antiquities Permit be properly housed in a museum or facility. This act is considered to be the beginning of a long tradition of cultural resources management and protection by the Federal government.

This Act is not applicable to this action as the Preferred Alternative does not require the excavation of archaeological material.

6.2.6 ARCHAEOLOGICAL AND HISTORIC PRESERVATION ACT (PUBLIC LAW 93-291 AND 16 U.S.C.469-469C)

The Archaeological and Historic Preservation Act (AHPA) of 1974 amended and expanded the Reservoir Salvage Act of 1960. The AHPA required that Federal agencies provide for "...the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or destroyed as the result of...any alteration of the terrain caused as a result of any Federal construction project of federally licensed activity or program."

Compliance with this Act is completed as part of compliance with the National Historic Preservation Act.

The Corps would conduct a submerged cultural resource assessment survey of those areas not previously surveyed prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). In addition, the Corps will consult with federally recognized tribes. The Preferred Alternative is in compliance with this Act.

6.2.7 ARCHAEOLOGICAL RESOURCES PROTECTION ACT OF 1979, AS AMENDED (54 USC 312501-312508: PRESERVATION OF HISTORICAL AND ARCHEOLOGICAL DATA)

The Archaeological Resources Protection Act (ARPA) protects archaeological resources and sites on federally owned and Indian lands and fosters increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals. The act established civil and criminal penalties for the destruction or alteration of cultural resources. This Act is not applicable because the Preferred Alternative (expansion of the nearshore placement area) is not located on Federally or tribally owned land.

6.2.8 BALD AND GOLDEN EAGLE PROTECTION ACT

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) (Eagle Act) prohibits the take of bald eagles and golden eagles unless pursuant to regulations (and in the case of bald eagles, take can be authorized only under a permit). The Eagle Act defines the "take" of an eagle to include a broad range of actions: "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, or molest or disturb." "Disturb" is defined in our regulations at 50 CFR 22.6 as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." Many actions that were considered likely to incidentally "take" (harm or harass) eagles under the ESA may also "take" eagles under the Eagle Act, as those terms have been defined by statute and regulation. The FWC eagle nesting mapper⁴ revealed that several eagle nests occur near the project area. The closest nest to the beach placement area occurs approximately 3 miles south on Longboat Key. The Corps will include applicable standard migratory bird protection measures in the project plans and specifications and will require the contractor to abide by those requirements. The Preferred Alternative complies with this Act.

6.2.9 CLEAN AIR ACT OF 1972

The Clean Air Act (CAA) requires Federal actions to conform to an approved state implementation plan designed to achieve or maintain an attainment designation for air pollutants as defined by the National Ambient Air Quality Standards (NAAQS). The NAAQS were designed to protect public health and welfare. The criteria pollutants include carbon monoxide (CO), ozone (O3), nitrogen dioxide (NO2), sulfur dioxide (SO2), particulate matter (PM2.5 and PM10), and lead (Pb).

⁴ The FWC eagle nesting mapper is available at <https://geodata.myfwc.com/datasets/myfwc::eagle-nesting/about>.

The existing air quality within Manatee County Florida meets the NAAQS. Therefore, the project is exempt from the CAA conformity requirements because it is located in a Federal attainment area 40 CFR § 81.310; Rule 62-204.340, FAC. No Federal permits are required. The State of Florida does not regulate emissions from off-road equipment or marine vessels; however, it can be assumed that insignificant emissions will be produced by the dredge and construction equipment during construction activities. The Preferred Alternative will not cause or contribute to violations of the National Ambient Air Quality Standards. The Preferred Alternative complies with this Act.

6.2.10 CLEAN WATER ACT, SECTION 401 AND SECTION 404(B)

A WQC is required for the dredging activity as well as for the transport and placement of sediment in-water. All applicable authorizations for dredging and associated sediment placement will be coordinated and obtained from the state of Florida prior to construction. will be provided with the issuance of the final Joint Coastal Permit prior to construction. The Preferred Alternative will be in compliance at the time of construction.

6.2.11 COASTAL BARRIER RESOURCES ACT AND COASTAL BARRIER IMPROVEMENT ACT OF 1990

The Coastal Barrier Resources Act (CBRA) and the Coastal Barrier Improvement Act limit federally-subsidized development within the CBRA Units to limit the loss of human life by discouraging development in high-risk areas, to reduce wasteful expenditures of Federal resources, and to protect the natural resources associated with coastal barriers. CBRA provides development goals for undeveloped coastal property held in public ownership, including wildlife refuges, parks, and other lands set aside for conservation ("otherwise protected areas," or OPAs). These public lands are excluded from most of the CBRA restrictions, although they are prohibited from receiving federal flood insurance for new structures.

The official USFWS Coastal Barrier Resources System (CBRS) maps were reviewed (<https://www.fws.gov/CBRA/Maps/Mapper.html>). The following CBRS units were identified within the project area by the CBRS mapper:

- System Unit P23
- System Unit FL-81
- Otherwise Protected Area FL-81P
- Otherwise Protected Area FL-80P
- Otherwise Protected Area P23P



Figure 6-1. Location of CBRS Units and Otherwise Protected Areas in the vicinity of GIWW Manatee O&M project area. SOURCE: <https://www.fws.gov/CBRA/Maps/Mapper.html>

Temporary impacts from dredging and placement activities are expected within the CBRS units but are expected to end with cessation of construction operations. The maintenance of existing federal navigation channel (including the Intracoastal Waterway) including the disposal of dredged material related to such maintenance or construction is allowable within System Units of the CBRS under Exception 2 in Section 6 of the CBRA (16 U.S.C. §3505(b)). Pertinent correspondence is included in Appendix A. The Preferred Alternative is in compliance with the Act.

6.2.12 COASTAL ZONE MANAGEMENT ACT OF 1972

The goal of the Coastal Zone Management Act (CZMA) is to “preserve, protect, develop, and where possible, to restore or enhance the resources of the nation’s coastal zone”. The CZMA requires that Federal actions that are reasonably likely to affect any land or water use or natural

resource of the coastal zone be consistent with enforceable policies of a State's federally-approved coastal management program.

The Corps prepared a Federal Consistency Determination in accordance with 15 CFR 930 Subpart C, which is included in this report as Appendix C. The Corps has determined that the Preferred Alternative is consistent to the maximum extent practicable with the enforceable policies of Florida's approved Coastal Management Program (CMP). The project will be reviewed by the State of Florida after the release of the SEA for consistency with Florida's CMP. CZMA consistency will be provided through preliminary concurrence of the project as it exists at the time of the review with the final consistency determination being provided with the issuance of the final Joint Coastal Permit prior to construction. The Preferred Alternative will be in compliance at the time of construction.

6.2.13 ENDANGERED SPECIES ACT OF 1973

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, (ESA) the Corps determined the project meets eligibility criteria for coverage by the NMFS' GRBO as well as USFWS' P3BO and SPBO. The project will be conducted in accordance with the ESA, as amended, and will adhere to all applicable conditions of the USFWS P3BO, the USFWS SPBO, and the NMFS GRBO. Discussion on the existing conditions and potential effects to T&E species are included in Sections 2.1 and 4.1, respectively. The Corps' effect determinations are summarized in [Table 4-1](#) and described in detail for this project in Section 4.1.

Effect determinations for species under NMFS jurisdiction:

For potential effects to federally listed T&E species under the NMFS jurisdiction, the project meets the eligibility criteria to be covered by the GRBO. Effect determinations for ESA listed species are provided in [Table 4-1](#). The GRBO covers the following work in the coastal waters, navigation channels, and sand mining areas in the U.S. Gulf of America (formerly the Gulf of Mexico), from the Texas-Mexico marine border to Key West, Florida:

- Dredging (e.g., maintenance, advance maintenance, minor channel modifications, borrow area dredging, and muck dredging);
- Transportation of dredged material;
- Dredged material placement;
- Geotechnical and geophysical surveys;
- ESA species handling.

The following types of dredges and dredging methods are covered by the GRBO: mechanical (e.g., clamshell and backhoe), hydraulic (e.g., cutterhead suction/pipeline dredging and hopper), side-cast/split hull, and agitation (e.g., bed leveling, water injection dredging) as well as dredging pipelines and support vessels.

The Preferred Alternative will be coordinated with NMFS through the notification of the availability of the SEA.

Effect determinations for species under USFWS jurisdiction:

For potential effects to federally listed T&E species under the USFWS jurisdiction, the project meets eligibility criteria to be covered by the SPBO and P3BO. Effect determinations for ESA listed species are provided in [Table 4-1](#). The SPBO covers the following work occurring on the sandy beaches of the Atlantic Coast of Florida (Key West to Fernandina/Kings Bay) and the Gulf Coast (Ten Thousand Islands to Alabama State Line):

- Sand placement originating from Dredged Material Management Areas (DMMA's), offshore borrow sites, and other compatible sand sources;

- Sand placement as an associated authorization of sand extraction from the outer continental shelf by the Bureau of Ocean Energy Management;
- Sand washed onto the beach from being placed in the swash zone;
- Sand by-passing/back-passing (sand discharge on beach);
- Current Operations and Maintenance (O&M) dredging of navigation channels with beach disposal (does not include new navigation projects or expansion (deepening or widening) of existing authorized navigation projects); and
- Repair or replacement of existing groins and jetties.

The P3BO covers the following work occurring on the sandy beaches; emergent bayside and Ocean/Gulf-side shoals and sand bars; bayside mudflats, sand flats, and algal flats; bayside shorelines of bays and lagoons; and emergent nearshore sand bars of the Atlantic Coast (Nassau County to Miami-Dade County) and the Gulf Coast (Monroe County to Taylor County) of Florida:

- Operations and maintenance dredging activities of navigational channels and sand placement on the sandy beach and dune (including up to or over hardened structures), the swash zone, and the nearshore regions associated with both shore protection projects and maintenance dredging;
- Sand placement as an associated authorization of sand extraction from the outer continental shelf by the BOEM;
- Sand by-passing/back-passing; and
- Repair or replacement of existing groins and jetties.

The Corps will initiate consultation with USFWS during the SEA's public comment period. The Corps requested concurrence from the USFWS on the Corps' MANLAA determinations. The project will adhere to applicable T&Cs and RPMs of the SPBO and P3BO. The Corps will also implement the USFWS' 2011 Standard Manatee Conditions for In-water Work. Pertinent correspondence is included in Appendix A. The Preferred Alternative will be in compliance with the Act.

6.2.14 ESTUARY PROTECTION ACT OF 1968

The Estuary Protection Act requires Federal agencies to consider estuaries and their natural resources when planning for the development of water and land resources.

Sarasota Bay and Tampa Bay, shown in [Figure 6-2](#) below, are both identified by the EPA as estuaries of national significance and are part of the National Estuary Program (NEP). Impacts to essential fish habitat and water quality are discussed in Sections 4.2 and 4.3, respectively. Due to construction impacts, mitigation for impacts to seagrasses is considered and planned in the compensatory mitigation plan, Appendix E. Impacts to sediment resources within the estuaries have been evaluated in section 4.4, as has placement within the dredge hole within the Sarasota Bay estuary. The Preferred Alternative complies with this Act.



Figure 6-2: The Tampa Bay and Sarasota Bay estuaries of national significance within the project area as identified by the NEP (<https://www.epa.gov/nep>)

6.2.15 FEDERAL WATER PROJECT RECREATION ACT, AS AMENDED

This Act requires full consideration of recreation and fish and wildlife enhancement in Federal water development projects.

Recreational opportunities as well as the effects of the Preferred Alternative on outdoor recreation have been described in Sections 2.10 and 4.10. The Preferred Alternative complies with this Act.

6.2.16 FISH AND WILDLIFE COORDINATION ACT

The central objective of the Fish and Wildlife Coordination Act (FWCA) is to ensure that fish and wildlife conservation receives equal consideration with other features of federal water-resource development programs.

A Memorandum for Record (MFR) between USFWS and the Corps to document an agreement between the agencies to use the NEPA review and ESA consultation processes to complete coordination responsibilities under the FWCA has been provided to USFWS to be signed for this 2026 SEA. The final, signed MFR will be included in the final SEA's Pertinent Correspondence Appendix A. The Preferred Alternative will be in compliance with this Act upon signature of the MFR.

6.2.17 FARMLAND PROTECTION POLICY ACT

The Farmland Protection Policy Act is intended to minimize the impact of the conversion of farmland to non-agricultural uses.

No farmland exists in the project area; therefore, the Act is not applicable.

6.2.18 MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT OF 1976, AS AMENDED

The MSFCMA reflects the Secretary of Commerce and Fishery Management Council authority and responsibilities for the protection of EFH. Federal agencies that fund, permit, or carry out activities that may adversely affect EFH are required to consult with the NMFS Habitat Conservation Division (HCD) regarding the potential effects of their actions on EFH. Per the January 22, 2019, and October 2, 2018, EFH Findings between NMFS' Southeast Regional Office and South Atlantic Division, U.S. Army Corps of Engineers and Jacksonville District, respectively, the EFH Assessment for the project is integrated within this draft SEA in Sections 2.2 and 4.2.

The Corps initiated consultation with NMFS for the Preferred Alternative during this SEA's public comment period. The Corps is complying with the Act through the NEPA review and EFH consultation processes and will be in full compliance with the Act.

6.2.19 MARINE MAMMAL PROTECTION ACT OF 1972, AS AMENDED

The Marine Mammal Protection Act prohibits harassing, feeding, hunting, capturing, and/or killing (referred to as "take") and importing of marine mammals and marine mammal products.

The project area is accessible to marine mammals, such as the Florida manatee and whales. Noise associated with dredging and vessel strikes in transit areas are known to cause impacts. Incorporation of the USFWS 2011 Standard Manatee Conditions for In-water Work, BMPs, as well as applicable T&Cs and PDCs of the GRBO into the projects' plans and specifications will ensure that the potential adverse effects to these species are reduced to the maximum extent practicable. Implementation of the safeguards used to protect T&E species during construction and operation would extend protections to marine mammals within the area. No take of marine mammals is anticipated. The Preferred Alternative is in compliance with the goals of this Act and will be in full compliance with the Act at the time of construction through implementation of referenced safeguards.

6.2.20 MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT

The Marine Protection, Research, and Sanctuaries Act regulates the placement of dredged material into the ODMDS. Ocean disposal of dredge material is not proposed as part of the Preferred Alternative; therefore, the Act is not applicable.

6.2.21 MIGRATORY BIRD TREATY ACT AND MIGRATORY BIRD CONSERVATION ACT

These Acts prohibit the take (e.g., killing, capturing, selling, or trading) and/or transporting of protected migratory bird species without prior authorization by USFWS.

Migratory and resident bird species have been observed within the study area and are likely to use available habitat for foraging, nesting, and breeding. The Preferred Alternative is not expected to destroy migratory birds, their active nests, their eggs, or their hatchlings. The Preferred Alternative will not pursue, hunt, take, capture, kill or sell migratory birds. The Preferred Alternative is in compliance with these Acts.

6.2.22 NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED

Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 Code of Federal Regulations (C.F.R.) Part 800, provides a regulatory framework for the identification, documentation, and evaluation of historic and cultural resources that may be affected by Federal undertakings. Under the act, Federal agencies must take into account the effects of their undertakings on historic properties, including resources that are listed or are eligible for listing in the National Register of Historic Places, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertaking. Additionally, a Federal agency shall consult with any tribe that attaches religious and cultural significance to such properties.

Consultation with SHPO and federally recognized tribes (i.e., the Muscogee Nation, the Poarch Band of Creek Indians, the Seminole Tribe of Florida, the Seminole Nation of Oklahoma, and the Miccosukee Tribe of Indians) pertaining to the dredging of GIWW Cuts M-1 through M-14, Cuts 1 and 2 of Longboat Pass Inlet, and Skyway Cuts 2 and 3, as well as the previously permitted nearshore placement area west of Egmont Key are summarized in Appendix D of the 2011 Environmental Assessment. Consultation with regard to the 2010 remote sensing cultural resources survey (FMSF# 18237) was coordinated with these same parties. In a letter dated May 23, 2011, SHPO concurred with the Corps no adverse effect determination, provided the maintenance of four avoidance areas (see DHR Project File No. 2011-01972).

In 2023, pertaining to the remote sensing survey of the nearshore placement area near Longboat Pass and the diver identification investigation of the aforementioned four potentially significant targets, the Corps consulted with the SHPO and federally recognized tribes (i.e., the Muscogee Nation, the Seminole Tribe of Florida, the Seminole Nation of Oklahoma, the Thlopthlocco Tribal Town, and the Miccosukee Tribe of Indians) on a determination of no adverse effect. In a letter dated April 4, 2024, the SHPO concurred with the Corps determination, provided that three new avoidance areas in the Longboat Pass placement are maintained (see DHR Project File No. 2023-6368).

Pertaining to the utilization of the dredge hole for placement, the Corps consulted with the SHPO. In an email response dated January 8, 2026, the SHPO concurred with the Corps' determination that placement of dredged material via a state access channel extending west from the GIWW will have no effect to historic properties.

Additionally, in order to determine whether or not any historic properties are located with the project footprint, the Corps will conduct a submerged cultural resource assessment survey of those areas of Alternative 1, 2, and 3 not previously surveyed prior to construction per Stipulation

V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). The Preferred Alternative is in compliance with this Act.

6.2.23 NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (25 U.S.C. § 3001 ET SEQ.)

The Native American Graves Protection and Repatriation Act (25 U.S.C. §§ 3001–3013; Public Law 101-601) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, with which they can show a relationship of lineal descent or cultural affiliation. This Act applies to federally owned lands, including Reservation lands.

As the Preferred Alternative does not impact federally owned or Tribal lands, this Act is not applicable.

6.2.24 RIVERS AND HARBORS ACT OF 1899

Section 10 of the Rivers and Harbors Act of 1899 prohibits obstruction to navigation of the waterway, unless recommended by the Chief of Engineers and authorized by the Secretary of the Army.

The Preferred Alternative could temporarily obstruct navigable waters of the U.S. during construction. The proposed action will be subject to the public notice and other evaluations normally conducted for activities subject to the Act. The Preferred Alternative is in compliance with this Act.

6.2.25 SUBMERGED LANDS ACT OF 1953

According to the Submerged Lands Act, the state holds ownership to submerged lands within three marine leagues of the coastline on the Gulf coast of Florida.

The project will occur on submerged lands of the State of Florida. The proposed work and subsequent submerged lands request will be acquired through obtaining a FDEP permit for filling of the proposed dredge hole and placement in the nearshore of Egmont Key. This project is being coordinated with the State of Florida through the NEPA review process. The Preferred Alternative is in compliance with the Act.

6.2.26 UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970 (PUBLIC LAW 91-646)

The purpose of this Act is to ensure that owners of real property to be acquired for Federal and Federally assisted projects are treated fairly and consistently, and that person displaced as a result of such acquisition will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

This Act is not applicable as this project will not be acquiring any real estate interests from private property owners.

6.2.27 WILD AND SCENIC RIVER ACT OF 1968

This Act requires that selected wild and scenic rivers be preserved in free-flowing condition with the immediate environment be protected for the benefit and enjoyment of future generations.

There are no designated wild and scenic rivers located within the project area. This Act is not applicable.

6.2.28 EXECUTIVE ORDER (E.O.) 11593, PROTECTION AND ENHANCEMENT OF THE CULTURAL ENVIRONMENT

Executive Order 11593, dated May 13, 1971, directs Federal agencies to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; initiate measures necessary to direct their policies, plans and programs in such a way that federally owned sites, structures, and objects of historical, architectural or archaeological significance are preserved, restored, and maintained for the inspiration and benefit of the people; and, in consultation with the Advisory Council on Historic Preservation (16 U.S.C. 470i), institute procedures to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures and objects of historical, architectural or archaeological significance.

In order to determine whether or not any federally owned sites, structures, or objects are located with the project footprint, the Corps would conduct a submerged cultural resource assessment survey of those areas of Alternative 1, 2, and 3 not previously surveyed prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). The Preferred Alternative is in compliance with this Act.

6.2.29 E.O. 11988, FLOODPLAIN MANAGEMENT

E.O. 11988 directs Federal agencies to avoid siting projects in floodplains and to avoid inducing further development of flood-prone areas. To comply with E.O. 11988, the policy of the Corps is to formulate projects that, to the extent possible, avoid or minimize adverse effects associated with the use of the floodplain and avoid inducing development in the floodplain unless there is no practicable alternative.

Per guidance provided in E.O. 11988, the following factors were evaluated:

1. *Determine if a proposed action is in the base floodplain (defined by E.O. 11988 as an "area which has a one percent or greater chance of flooding in any given year").*
Most of the land area near the project is within the 100-year flood zone as mapped by the Federal Emergency Management Agency (FEMA 2021).
2. *Conduct early public review, including public notice.*
Public and agency coordination is described in Section 6.3. This EA was coordinated with interested stakeholders and the public via the NEPA process.
3. *Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain.*
The Preferred Alternative occurs on submerged lands and does not occur within a floodplain.
4. *Identify impacts of the proposed action.*
Because the Preferred Alternative occurs on submerged lands and not occur within a floodplain, no impacts to the floodplain are expected. Impacts of the proposed action to the physical, natural, and socioeconomic environment are described in Section 4 and include short-term adverse effects, which will cease

with the completion of construction. Long-term beneficial effects associated with the action are expected to navigation, safety, economics, and needs and welfare of the people. These long-term benefits would be expected to remain for years following construction.

5. *Minimize threats to life and property and to natural and beneficial floodplain values. Restore and preserve natural and beneficial floodplain values.*
Maintenance dredging will continue to provide navigation benefits thereby minimizing threats to human health and life safety. More details on the project's purpose and need are included in Section 1. Details on the environmental commitments are included in Section 6.
6. *Reevaluate alternatives.*
Alternatives are described in Section 3. The Preferred Alternative, described in detail in Section 3.1.2, best meets the purpose and need.
7. *Issue findings and a public explanation.*
The EA provides a proposed and describes the Preferred Alternative in Section 3.1.2. Public and agency coordination is described in Section 6.3.
8. *Implement the action.*
Construction will occur after all appropriate documentation (e.g., agreements, permitting, etc.) is completed and funds are received.

The Corps concludes that the Preferred Alternative will not result in harm to people, property, and floodplain values; will not induce development in the floodplain; and that the project is in the public interest. For the reasons stated above, the Preferred Alternative complies with this E.O.

6.2.30 E.O. 13007, INDIAN SACRED SITES

Executive Order 13007, dated May 24, 1996, directs Federal agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners. To the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, the co-lead agencies are to avoid adversely affecting the physical integrity of such sacred sites and to maintain the confidentiality of sacred sites when appropriate. The order encourages government-to-government consultation with tribes concerning sacred sites. Some sacred sites may qualify as historic properties under the National Historic Preservation Act. This E.O. is directed towards executive branch agencies with statutory or administrative responsibility for the management of federal lands.

Indian Tribes have not indicated the presence of any local sacred sites or identified any effects of this project to their ability to freely access such sites in the exercise religious practice, The project is in compliance with this Act.

In order to determine whether or not any Indian Sacred Sites are located with the project footprint, the Corps would conduct a submerged cultural resource assessment survey of those areas of Alternative 1, 2, and 3 not previously surveyed prior to construction per Stipulation V of the Corps' *Programmatic Agreement Among the United States Army Corps of Engineers, The Florida State Historic Preservation Officer, The Bureau of Ocean Energy Management, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act During Implementation of the United States Army Corps of Engineers, Jacksonville District Operations, Navigation, and Shore Protection Programs* (2021). In addition, the Corps will consult with federally recognized tribes. The Preferred Alternative is in compliance with this Act.

6.2.31 E.O. 11990, PROTECTION OF WETLANDS

The objective of this E.O. is to avoid long and short-term adverse impacts associated with the destruction or modification of wetlands. Wetlands are not located within the proposed project footprint. This E.O. is not applicable.

6.2.32 E.O. 13045, PROTECTION OF CHILDREN FROM ENVIRONMENTAL HEALTH AND SAFETY RISKS

E.O. 13045 requires each Federal agency to “make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children” and “ensure that its policies, programs, activities, and standards address disproportionate risks to children that results from environmental health risks or safety risks.”

The Preferred Alternative does not affect children disproportionately from other members of the population and would not increase any environmental health or safety risks to children. The Preferred Alternative is in compliance with this E.O.

6.2.33 E.O. 13089, CORAL REEF PROTECTION

The objective of E.O. 13089 is to preserve and protect the biodiversity, health, heritage, social and economic value of U.S. coral reef ecosystems and the marine environment. This E.O. directs Federal Agencies to expand their research, preservation, monitoring and restoration efforts with respect to actions that affect coral reef ecosystems.

No coral reefs would be impacted by the Proposed Action. This E.O. does not apply.

6.2.34 E.O. 13112, INVASIVE SPECIES

E.O. 13122 is aimed to prevent the introduction of invasive species and requires that Federal Agencies provide for their control and minimize the economic, ecological and human health impacts that invasive species can cause.

The project’s plans and specifications will include conditions to avoid the introduction and/or promotion of non-native species to the region. Conditions will include thoroughly cleaning all equipment prior to the start of work and reporting all sightings of invasive and nuisance species (not identified in pre-construction conditions) within 24-hours. The Corps will require the contractor to abide by those requirements as well as submit a plan describing the protection measures (e.g., transfer prevention procedures, designated cleaning sites/locations, etc.) to be implemented by the Contractor. The Preferred Alternative is in compliance with the goals of this E.O.

6.2.35 E.O. 13175, CONSULTATION AND COORDINATION WITH INDIAN TRIBAL GOVERNMENTS

The United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, executive orders, and court decisions. This order directs federal agencies to formulate and establish “regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.” This consultation is meant to work toward a mutual consensus and is intended to begin at the earliest planning stages before decisions are made and actions are taken.

The Corps would continue to coordinate as required by the E.O. and the December 05, 2023, U.S. Army Corps of Engineers – Civil Works Tribal Consultation Policy. The Preferred Alternative is in compliance with the goals of this E.O.

6.2.36 E.O. 13186, RESPONSIBILITIES OF FEDERAL AGENCIES TO PROTECT MIGRATORY BIRDS

E.O. 13186 requires Federal agencies taking actions which have or are likely to have a measurable negative effect on migratory bird populations to take certain actions which promote the conservation of migratory bird populations. Migratory and resident bird species have been observed within the project area and are likely to use available habitat for foraging and transit. The proposed project occurs on submerged lands and is not expected to destroy migratory birds, their active nests, their eggs, or their hatchlings. The Corps will include applicable standard migratory bird protection requirements in the project plans and specifications and will require the contractor to abide by those requirements. The project is in compliance with the goals of this E.O.

Migratory and resident bird species have been observed within the study area and are likely to use available habitat for foraging, nesting, and breeding. The Proposed Action is not expected to destroy migratory birds, their active nests, their eggs, or their hatchlings. The Preferred Alternative is in compliance with the goals of this E.O.

6.2.37 MEMORANDUM ON GOVERNMENT-TO-GOVERNMENT REGULATIONS WITH NATIVE AMERICAN TRIBAL GOVERNMENTS

Memorandum signed by President Clinton April 29, 1994 directs the heads of executive departments and agencies to operate within a government-to-government relationship with federally recognized tribal governments; consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments; assess the impact of Federal Government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities; take appropriate steps to remove any procedural impediments to working directly and effectively with tribal governments on activities that affect the trust property and/ or governmental rights of the tribes; and work cooperatively with other Federal departments and agencies to enlist their interest and support in cooperative efforts, where appropriate, to accomplish the goals of this memorandum.

Through completion of NEPA scoping and release of the draft SEA, the goals of this memorandum have been met and therefore the Preferred Alternative is in compliance.

6.3 PUBLIC AND AGENCY COORDINATION

The following describes public involvement during development of the SEA.

6.3.1 SCOPING

A scoping letter and notice were sent out on April 15, 2025, for a comment period of 30 days, ending on May 15, 2025. During this scoping period, comments were received from the Florida Inland Navigation District (FIND), FDEP, EPA, and West Coast Inland Navigation District (WCIND). Comments focused on potential impacts to ESA-listed species, shorebirds, and seagrasses.

6.3.2 AGENCY AND STAKEHOLDER COORDINATION

A Notice of Availability was provided to pertinent Tribal Nations, Federal, state, and local agencies, and other interested stakeholders to notify them of the start of the 30-day review and comment period for the proposed FONSI, SEA, and associated appendices. The documents can be downloaded from the Corp's environmental website:

<https://www.saj.usace.army.mil/About/DivisionsOffices/Planning/Environmental-Branch/Environmental-Documents/>

(Click “[Manatee]” and scroll down to the project name.)

6.3.3 TRIBAL CONSULTATION

The scoping notice and letter were sent to tribal points of contact in order to allow the opportunity for comments and input from the tribes regarding the proposed action. No comments were received from the tribal contacts during the scoping period.

6.3.4 PUBLIC COMMENTS RECEIVED AND RESPONSES

A copy of all comments received during the public and agency review and comment period, as well as a summary matrix of the comments and Corps’ responses to substantive comments, will be included in the final NEPA document’s [Appendix A](#) (Pertinent Correspondence).

7 PREPARERS

Table 7-1. List of preparers and reviewers.

Name and Title	Organization	Discipline/Expertise
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William Warren, Geologist	Corps	Geotechnical
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Gretchen Ehlinger, Ph.D. Environmental Branch Chief	Corps	NEPA

8 ACRONYM LIST

Acronym	Definition
APE	Area of Potential Effect
BBA 2018	Bipartisan Budget Act of 2018
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resource System
CCCL	Coastal Construction Control Line
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers, Jacksonville District
CSRM	Coastal Storm Risk Management
CWA	Clean Water Act
CY	Cubic Yard
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
ECL	Erosion Control Line
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ER	Engineering Regulation
ESA	Endangered Species Act
ETOF	Equilibrated Toe of Fill
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FEMA	Federal Emergency Management Agency
FWC	Florida Fish and Wildlife Conservation Commission
FONSI	Finding of No Significant Impact
FY	Fiscal Year
HAPC	Habitat Areas of Particular Concern
HTRW	Hazardous, Toxic, and Radioactive Waste
LAA	Likely to Adversely Affect
MANLAA	May Affect, Not Likely to Adversely Affect
MBTA	Migratory Bird Treaty Act
MHW	Mean High Water
MHWL	Mean High Water Line
MLW	Mean Low Water
MLWL	Mean Low Water Line
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NAVD88	North American Vertical Datum of 1988
NE	No Effect
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OCS	Outer Continental Shelf
OFW	Outstanding Florida Waters
OPA	Otherwise Protected Area
PDC	Project Design Criteria
PDT	Project Delivery Team
PED	Preconstruction Engineering and Design

P3BO	Programmatic Piping Plover Biological Opinion for Shore Protection Activities in the Geographical Region of the North and South Florida Ecological Services Field Offices
SAFMC	South Atlantic Fish Management Council
SAD	U.S. Army Corps of Engineers, South Atlantic Division
SARBO	South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States
SLC	Sea Level Change
SCTLD	Stony Coral Tissue Loss Disease
SLR	Sea Level Rise
SPBO	Statewide Programmatic Biological Opinion for Shore Protection Activities along the Coast of Florida
SPP	Shore Protection Project
T&E	Threatened and Endangered
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WRDA	Water Resources Development Act

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