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SAVANNAH DISTRICT

Tybee Island Shoreline Protection Project (TISPP) Periodic and Emergency Beach Renourishments Draft Environmental Assessment and Finding of No Significant Impact Tybee Island, Chatham County, Georgia

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Tybee Island Shoreline Protection Project (TISPP)
Periodic And Emergency Beach Renourishments

Draft Environmental Assessment and Finding of No significant Impact

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Project Location	Tybee Island, Chatham County, GA
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How to Comment	Public comments may be submitted via email at CESAS-Planning@usace.army.mil or mailed to the address above with Attn: Planning Branch, CESAS-PMP. Mailed comments must be postmarked by the deadline January 23, 2026. Please include “Draft TISPP EA” in the subject line. Emailed comments must be received by midnight January 23, 2026.
Public Comment Period Ends	January 23, 2026

DRAFT FINDING OF NO SIGNIFICANT IMPACT

Tybee Island Shoreline Protection Project (TISPP)
Periodic and Emergency Beach Renourishments

Tybee Island, Chatham County, GA

The U.S. Army Corps of Engineers, Savannah District (USACE) has conducted an environmental analysis in accordance with the National Environmental Policy Act (NEPA), as amended, and US Department of Defense (DoD) NEPA Implementing Procedures issued 30 June 2025.The draft Environmental Assessment (EA) and Finding of No significant Impact (FONSI), for the Tybee Island Shoreline Protection Project (TISPP) addresses the performance of periodic and emergency beach renourishments on Tybee Island, Chatham County, GA through 2036, which extends from 2024 per the Water Resources Development Act (WRDA) of 2022 (Section 8129(a)(2)(B)).

The draft EA, incorporated herein by reference, evaluates beach renourishments within the TISPP Federal template. The recommended plan is the periodic and emergency beach renourishments under the TISPP through 2036. The exact quantity of placement sediment will be determined based on physical conditions and funds available at the time of construction for each beach renourishment.

In addition to a “no action” plan, the recommended plan was evaluated. For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan is 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
Air Quality	☒	☐	☐
Aquatic and Terrestrial Species	☒	☐	☐
Coastal Storm Risk	☒	☐	☐
Economics	☒	☐	☐
Essential Fish Habitat	☒	☐	☐
Floodplains	☐	☐	☒
Geology/Soils	☒	☐	☐
Hazardous, Toxic or Radioactive Wastes	☐	☐	☒
Historic Properties and Cultural Resources	☒	☐	☐
Hydrology	☒	☐	☐
Noise Levels	☒	☐	☐
Protected Species and Critical Habitat	☒	☐	☐
Recreation	☒	☐	☐
Transportation and Navigation	☐	☐	☒
Water Quality	☒	☐	☐

	Insignificant Effects	Insignificant Effects as a result of mitigation	Resource unaffected by action
Wetlands	☐	☐	☒

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best Management Practices (BMPs) as described in the EA will be implemented, if appropriate, to minimize effects. BMPs are summarized in Section 2.2.6. No compensatory mitigation is required as part of the recommended plan.

Public review of the draft EA and FONSI was initiated on January 9, 2026, for a 15-day public comment period. All comments submitted during the public review period will be responded to in the Final EA and FONSI, as appropriate.

Pursuant to the Clean Water Act (CWA) as amended, the discharge of dredged or fill material associated with the recommended plan is compliant with Section 404(b)(1) Guidelines (40 Code of Federal Regulations (CFR) 230). The CWA Section 404(b)(1) Guidelines evaluation is found in Appendix A of the EA. EPA will consider the potential for water quality effects to neighboring jurisdictions and issue an effects determination for the project pursuant to CWA Section 401(a)(2).

USACE submitted an application for a water quality certification (WQC) pursuant to Section 401 of the CWA to the Georgia Department of Natural Resources Environmental Protection Division (GADNR-EPD) on December 15, 2025. GADNR-EPD issued a public notice for the 30-day comment period for the CWA 401 WQC on December 18, 2025. The public notice and USACE coordination with the GADNR-EPD on 401 WQC requirements can be found in Appendix A.

USACE is coordinating with GADNR Coastal Resources Division (GADNR-CRD) regarding federal consistency with the Georgia Coastal Zone Management program pursuant to the Coastal Zone Management Act (CZMA) of 1972. USACE's federal consistency determination can be found in Appendix B.

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, USACE determined that the recommended plan will have no effect for the following U.S. Fish and Wildlife Service (USFWS) ESA Federally listed species or their designated critical habitat: eastern black rail (*Laterallus jamaicensis ssp. Jamaicensis*), wood stork (*Mycteria americana*), eastern indigo snake (*Drymarchon couperi*), Hawksbill sea turtle (*Eretmochylys imbricata*), Kemp's Ridley sea turtle (Lepodochelys imbricata), Monarch butterfly (*Danaus plexippus*), and pondberry (*Lindera melissifolia*). USACE determined that the proposed action may affect but is not likely to adversely affect (MANLAA) the following USFWS ESA Federally listed species: the West Indian manatee (*Trichechus manatus*), piping plover (*Charadrius melodus*) and its critical habitat, rufa red knot (*Calidris canutus rufa*) and its proposed critical habitat, and leatherback sea turtle (*Dermochelys coriacea*). USACE determined that the proposed action may affect and is likely to adversely affect (MALAA) the green sea turtle (*Chelonia mydas*) and loggerhead sea turtle (*Caretta caretta*). The analysis supporting the effect

determinations can be found in Appendix C. USACE has initiated consultation with USFWS under Section 7 of ESA.

Pursuant to Section 7 of the ESA, as amended, the National Marine Fisheries Service (NMFS), issued the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement in the Southeast United States (SARBO) on March 27, 2020, revised July 30, 2020. The TISPP is a covered project in the 2020 SARBO. The USACE will follow all terms and conditions and all relevant project design criteria of the 2020 SARBO. The 2020 SARBO covers the following federally listed species under NMFS jurisdiction that may be in the project area: North Atlantic Right whale, Sei whale, Blue whale, Sperm whale, Fin whale, Kemp's Ridley sea turtle, Hawksbill sea turtle, Loggerhead sea turtle, Leatherback sea turtle, Green sea turtle, Oceanic Whitetip shark, Giant manta ray, Atlantic sturgeon, and Shortnose sturgeon.

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), USACE determined that the proposed action would have minor or negligible adverse effects to essential fish habitat. USACE is consulting with the NMFS Habitat Conservation Division (NMFS-HCD) and provided the draft EA and essential fish habitat (EFH) assessment (Appendix D).

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), USACE reached a determination of no adverse effect to historic properties in consultation with the Georgia State Historic Preservation Office (GA SHPO) and Ten (10) Tribal Historic Preservation Offices (THPO) (Appendix E). Concurrence was received on September 3, 2025, from the GA SHPO. Historic properties are present within the Area of Potential Effect, but the proposed action poses no adverse effects to these resources. Avoidance measures are in place for two anomalies in the borrow area.

Technical, environmental, planning, and engineering criteria used in alternative plan formulation 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.

I certify that the resulting EA represents the following: USACE's 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 USACE's expert judgment; the document is substantially complete; that any considerations addressed briefly or left unaddressed were, in USACE's 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 USACE's judgment the analysis contained therein is adequate to inform and reasonably explain USACE's final decision regarding the proposed Federal action.

Date

Ronald P. Sturgeon, PMP
Colonel, U.S. Army
Commanding

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DRAFT January 2026

Section 1. Introduction

1.1 Proposed Federal Action

The U.S. Army Corps of Engineers, Savannah District (USACE) has prepared an Environmental Assessment (EA) for the Tybee Island Shoreline Protection Project (TISPP) at Tybee Island, Chatham County, GA. This document evaluates environmental effects of the proposed periodic and emergency beach renourishments for the TISPP on Tybee Island, GA and details the alternative development process, including the analysis of effects related to the proposed placement actions. This EA has been prepared in compliance with compliance with the National Environmental Policy Act (NEPA), as amended (Title 42 *United States Code* (USC) § 4321 et seq.); U.S. Department of Defense (DoD) NEPA Implementing Procedures issued 30 June 2025; and other applicable USACE policies and guidance.

The TISPP is a Federally designed and constructed hurricane and storm damage risk reduction project to reduce risk from waves, erosion, and inundation within the project area. The proposed Federal action includes beach renourishments that may occur periodically or as needed under emergency conditions for the remaining duration of the TISPP (through 2036). Periodic beach renourishments are anticipated every 7 years, with the first planned for 2026-2027. Emergency beach renourishments may occur based on authorizations and funding provided as needed (i.e., in the event of damages incurred by a storm or other event).

This EA does not reevaluate the previously approved project formulation for TISPP). The underlying Federal storm protection project and template were established in prior feasibility and reevaluation studies and remain unchanged. This EA evaluates the environmental effects of continuing periodic and emergency beach renourishments through 2036 under that existing authorization.

The authorized project includes beach renourishment of the Federal template, as defined by the 13,200 linear feet of beach along Front Beach, 1,100 linear ft along the South Tip (South Tip Beach), and the 1,800 linear feet of the eastern bank of Tybee Creek to the city fishing pier (referred to as Back River Beach) (Figure 1). A total of 1.5 Million Cubic Yards (MCY) is estimated for placement along the Federal template during each periodic nourishment.

Figure 1. TISPP approximate Federal template for beach renourishment.

1.2 Purpose and Need

The purpose of the TISPP is to conduct periodic and emergency beach nourishments through 2036 to (1) provide storm risk reduction benefits to infrastructure; (2) mitigate erosional effects through sand replenishment; and (3) provide recreational and economic benefits to Tybee Island.

The need arises as a result of historic erosion rates in “hot spots” along the Tybee Island shoreline which have generated increased coastal storm risks (Figure 2). Based on survey data collected from July 2020 to April 2025, the Federal template has an erosion rate of 178,432 cubic yard (CY) per year (Yr) (Table 1). According to the 2025 shoreline change analysis by the Skidaway Institute of Oceanography (SKiO; Alexander 2025), a mean erosion rate of -6.51 m/year occurs along the Front Beach of Tybee Island (Figure 2).The erosional hot spots create areas that are vulnerable to storm surge and wave attack and can lead to damage to infrastructure and existing dunes. In Figure 2, red is indicative of erosional hot spots and blue is indicative of accretionary zones. Figure 3 provides visualizations of recent erosive wave conditions along the Front Beach shoreline.

Table 1. Shoreline erosion rate calculated from USACE surveys from 2020 – 2025.

Year	Time between Surveys [Months (Yrs)]	Erosion Rate (CY/Yr)
July 2020 to June 2022	23 (1.96)	125,500
June 2022 to June 2023	12 (1.00)	220,500
June 2023 to March 2024	9 (0.75)	149,300
***March 2024 to September 2024 (Post-Helene)**	*8 (0.67)	*56,716
***September 2024 to April 2025**	*6 (0.50)	
March 2024 to April 2025	14 (1.17)	171,450
Average:		**178,432**

* The September 2024 (Post-Helene) survey includes Sta 0+00 to 120+00. These erosion rates were not included in the average erosion rate calculation because surveys only covered about half the beach. The total loss for 2024 was calculated using the April 2025 survey.

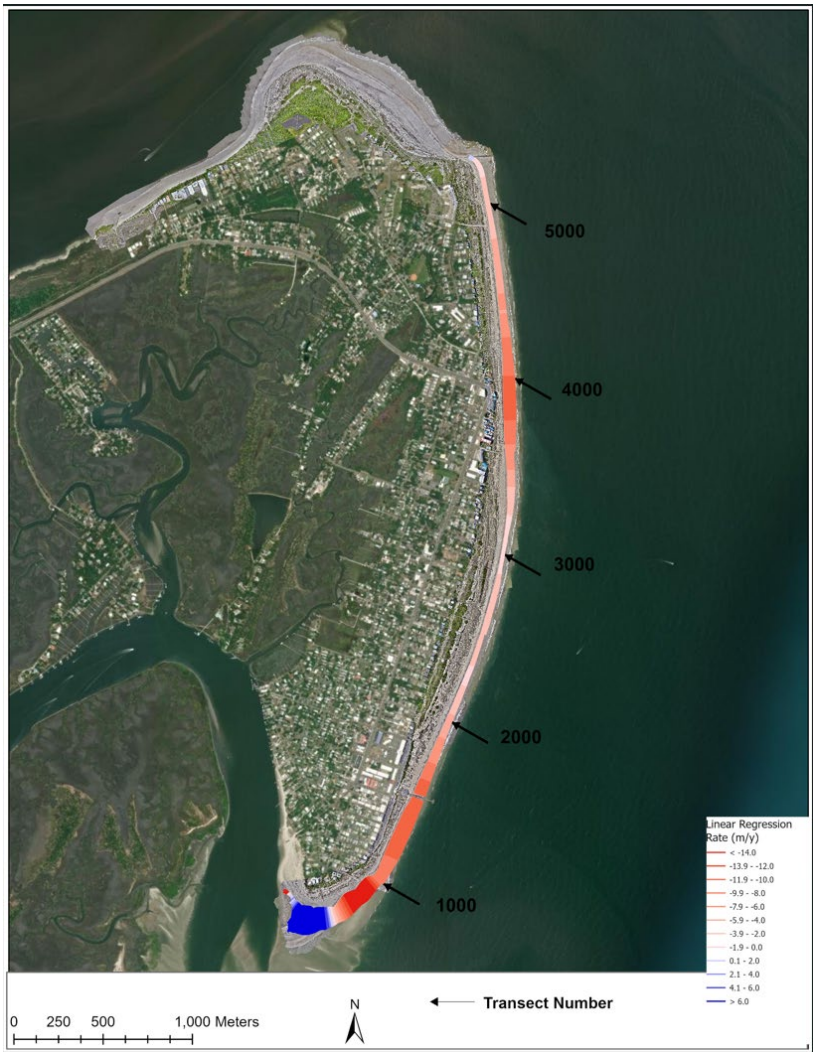

Figure 2. Skidaway Institute of Oceanography (SKiO) 2025 shoreline change monitoring of the Tybee Island Federal template.

Figure 3. High energy waves along the Front Beach facing South (2A) and North (2B). Photo courtesy of AWR Strategic Consulting dated October 10, 2025.

1.3 Scope and Authority

The original Federal TISPP was authorized by Senate and House Resolutions dated June 22 and June 23, 1971, respectively, pursuant to Section 201 of the Flood Control Act of 1965 (Public Law [P.L.] 89-298), as presented in House Document No. 92-105, for a life of 10 years. Section 201 provided a procedure for authorization of projects with, at that time, an estimated Federal first cost of construction of less than $10 million. The authorizing language in the Senate Resolution reads as follows:

"RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, That pursuant to the provisions of Section 201 of Public Law 298, Eighty-ninth Congress, (79 Stat. 1073; 42 U.S.C. 1962d-5) the project providing for beach erosion control on Tybee Island, Georgia, is hereby approved substantially in accordance with the recommendations of the Secretary of the Army and the Chief of Engineers in House Document Numbered 105, Ninety-second Congress, at an estimated cost of $404,000."

The authority for Federal participation in periodic beach renourishments was increased from 10 years to 15 years by Section 156 Water Resources Development Act (WRDA) 1976 (P.L. 94-587, as amended (42 U.S.C. 1962d-5f), which reads as follows:

"The Secretary of the Army, acting through the Chief of Engineers, is authorized to provide periodic beach nourishment in the case of each water resources development project where such nourishment has been authorized for a limited period for such additional periods as he determines necessary but in no event shall such additional period extend beyond the fifteenth year which begins after the date of initiation of construction of such project."

Section 934 of WRDA 1986 (P.L. 99-662) modified Section 156 WRDA 1976 by extending the authority for Federal participation in periodic beach renourishment from 15 years to 50 years and reads as follows:

"Section 156 of the Water Resources Development Act of 1976 (42 U.S.C. 1962d-5f) is amended by striking out "fifteenth" and inserting in lieu thereof "fiftieth."

Following the passage of WRDA 1986, the "Section 934" report was completed in March 1994 and revised in October 1994, which concluded that the authorized Federal project for Tybee Island was economically feasible under then current policy and economic guidelines, and the project should be extended for the remaining life of 30 years (from 1994). The study was initiated in 1990, completed in October 1994 and approved in June 1995. Accordingly, the project life of the TISPP was established in September 1974 and extended through September 2024.

The TISPP was further modified by Section 301 of WRDA 1996 (P.L. 104-303), which amended the authorized project as follows:

"The project for beach erosion control, Tybee Island, Georgia, authorized pursuant to section 201 of the Flood Control Act of 1968 (42 U.S.C. 1962d-5; 79 Stat. 1073-1074) is modified to include as an integral part of the project the portion of Tybee Island located south of the existing south terminal groin between 18th and 19th Streets, including the east bank of Tybee Creek up to Horse Pen Creek."

In 1997, USACE began to work on a study to determine if the South Tip Beach and Tybee Creek up to Horse Pen Creek should be added to the authorized TISPP. The "Special Report on South Tip Beach/Tybee Creek" was completed in May 1998 in response to this authority and was approved by USACE Headquarters in August 1998. The report recommended extending the southern limits of the authorized project for an additional 1,100 feet to provide protection for structures along the South Tip and another 1,800 feet to provide protection to the eastern bank of the Tybee Creek (also known as Back River).

Section 8129(a)(2)(B) of WRDA 2022 (P.L. 117-263) amended subsection (e) of Section 156 of WRDA 1976, (42 U.S.C. 1962d-5f), and provides that for any existing authorized water resources development project which the maximum period for nourishment described in subsection (a) of WRDA 1976 will expire within the 16-year period beginning on June 10, 2014, that project shall remain eligible for nourishment for an additional 12 years after the expiration of such period. The Tybee Island Storm Risk Management Act, as defined in WRDA 2022, extends Federal participation in the TISPP by 12 years. The expected expiration of the TISPP was September of 2024; however, through this Act, Federal participation was extended to 2036.

The non-Federal project sponsor is the City of Tybee Island, GA. On May 6, 1999, the Department of the Army and the City of Tybee Island, GA entered into a Project Cooperation Agreement (PCA). The project cost-share is 60.7% Federal and 39.3% non-Federal. An amendment to the PCA will be executed to extend the TISPP to 2036.

In accordance with the Department of Defense NEPA Implementing Procedures, USACE focused its analysis on the environmental effects of the project at hand. USACE defined the geographic scope of the analysis to include the immediate project area, as well as adjacent areas that could be reasonably expected to be affected by the project. This includes the borrow site where sand is dredged, the Tybee Island shoreline, and the nearshore areas where sediment transport may occur. This approach allows for a comprehensive understanding of the project's potential impacts on the coastal system. The analyses of environmental consequences below (Section 3) consider both direct and indirect effects to the project area.

1.4 Project Background

Tybee Island is located on the Atlantic Ocean at the mouth of the Savannah River, about 17 miles east of the City of Savannah. Tybee Island is Georgia's most densely developed barrier island, bordered on the north by the South Channel of the Savannah River, on the east by the Atlantic Ocean, and on the south and west by Tybee Creek and a vast tidal marsh system. Tybee Island has an average width of 2.5 miles and the ground elevation varies from 10 to 18 feet above mean lower low water (MLLW), sloping westward to the salt marshes.

The Federal project consists of renourishing 13,200 linear feet of beach between two terminal groins (referred to as Front Beach); construction of a groin field and periodic

beach renourishments along 1,100 linear feet of shoreline from the southern terminal groin around the South Tip to the mouth of Tybee Creek (also known as Back River); and construction of a groin field and periodic beach renourishments of 1,800 linear feet of the eastern bank of Tybee Creek to the city fishing pier (referred to as Back River Beach). The South Tip groin field was constructed in 1994, and the Back River groin field was constructed in 2000. See Figure 4 for a map of areas described. The beach was last renourished in 2015 and repaired in 2018, as described in the 2019 Tybee Island Shoreline Protection Project Hurricane Harvey, Irma, Maria Emergency Supplemental Beach renourishment EA and FONSI (referred to herein as the 2019 HIM Supplement Beach renourishment). The Borrow Area Extension (BAE) of 2008 was used for the 2008, 2015, and 2018 beach renourishments, and an additional extension occurred for the 2019 HIM Supplement Beach renourishment (USACE 2019). Table 2 provides a history of erosion and erosion control efforts on Tybee Island.

Table 2. History of Tybee Island, GA erosion and erosion control efforts.

Year	Action
1975	800-ft North End Terminal Groin constructed using 10.5 tons of armor and 2,700 lbs. of stone.
1975-1976	Initial nourishment. 2,262,100 yd^3 of sand placed on the beach between North End Terminal Groin and 18th Street (13,200 feet long). Borrow site #3 used.
1986-1987	600-ft South End Terminal Groin constructed between 18th and 19th St. Rehabilitation of North End Terminal Groin. 1,200,000 yd^3 of sand placed from between the groins. 157,000 yd^3 of sand placed on 1,400' of shoreline south of South End Groin. Borrow site #3 used.
1993	An estimated 918,000 yd^3 of sand placed on Front beach by USACE and Georgia Ports Authority from Savannah Harbor deepening. Navigation channel was the sand source.
1994	South Tip Groin Field constructed by Georgia Ports Authority with State funds.
1995	285,000 yd^3 of sand placed between South End Groin and 13th Street, and 50,000 yd^3 of sand placed within South Tip Groin Field by Georgia Ports Authority. Borrow site #4 used.
2000	Back River Groin Field constructed, initial nourishment of Back River with sand and beach renourishment of South Tip and Front Beach with sand. Quantities are Armor Stone- 4,631 tons, Underlay Stone- 619 tons, Bedding Material- 1,847 tons, Back River/Tybee Creek Beach- 86,319 yd^3, Second Street Beach- 1,267,738 yd^3, South Beach- 118,654 yd^3, Back River/Tybee Creek/North of Seawall- 7,859 yd^3. Borrow site #4 was used.
2001- 2004	Average annual 142,084 yd^3 erosion for Front, South Tip, and Back River beaches.
2008	Front Beach renourishment with sand from Borrow Area Extension 2008. Quantities are: Back River/Tybee Creek- 39,679 yd^3, Front Beach- 1,187,469 yd^3 (between Gulick Street and the South End Terminal Groin- 13,200 feet long).
2015	Front Beach renourishment with sand from Borrow Area Extension 2008. Quantities are: Back River/Tybee Creek- 40,000 yd^3, Front Beach- 1,390,000 yd^3 (between North Terminal Groin and the South Terminal Groin- 13,500 feet long).
2016	270,000 yd^3 lost to erosion from Hurricane Matthew. 462,000 yd^3 lost from Construction Template and 47,000 yd^3 lost from Design Template.
2017	144,000 yd^3 lost natural erosion and 156,000 yd^3 lost Hurricane Irma over Nov 2016-May 2017. 840,000 yd^3 lost from Construction Template and 68,000 yd^3 lost from Design Template over May 2017-Sep 2017.
2018	Front Beach renourishment (250,000 yd^3 between North Terminal Groin and the South Terminal Groin- 4,200 feet long) with sand from Borrow Area Extension 2008.
2020	Hurricane Irma and Matthew Supplemental Beach renourishment completed with an expanded borrow area. Front Beach (between the North Terminal Groin to Back River, approximately 1.500 feet South of the South Terminal Groin), approximately 14,860 linear feet and 1.2 MCY.
2020-2024	Average annual 155,000 yd^3 erosion for Front, South Tip, and Back River beaches.

Figure 4. Project area description on Tybee Island, GA. Federal template outlined in orange.

Section 2. Alternatives

This EA addresses continual implementation of the authorized TISPP. The underlying project design and selected plan were established in earlier feasibility and Section 934 studies. Those studies evaluated different action alternatives for the proposed action and for this authorized project determined the selected plan. Therefore, this EA evaluates the NEPA No Action (Without Project Condition) and the Proposed Action, rather than developing new plan formulation alternatives. Development of the proposed action described in this EA was a product of historical USACE reports and needs based on erosive effects on Tybee Island. The original development of the Federal template for the TISPP occurred in the 1970 USACE Report, which became the basis for House Document No. 92-105. This authorized the TISPP for 50 years and included construction plans of three rubble mounds and beach renourishments along 8,300 linear feet of shoreline beginning at the north end of Tybee Island and extending south to Ninth St. Subsequent memoranda further developed the extent and definition of the Federal template as described in this report.

Additional beach fill was considered as a measure that was added to the proposed action after coordination with the non-Federal sponsor on their need for dune remediation along the Federal template. Environmental and engineering evaluations determined that adding the additional beach fill measure to the action alternative would be feasible and constructable. The USACE also determined that additional beach fill is within the project authority.

2.1 Alternative 1: No Action (Without Project Condition)

Under the no action alternative, the USACE would not conduct beach renourishment and shoreline protection activities. This alternative would result in continued erosion of the Tybee shoreline, including potential loss of property and structures. Based on the 2025 shoreline monitoring conducted by the Skidaway Institute of Oceanography (SKiO) (Alexander 2025), the mean annual erosion rate of the TISPP Federal template is -6.51 m/yr. Most erosion occurs at the Second Street “hot spot” and within the vicinity of the Tybrisa Pier (See Section 3.7). Without beach renourishment activities, the beach would continue to erode and accelerate the loss of storm damage protection. It would also negatively impact recreational and economic benefits for the City of Tybee Island and result in a loss of habitat for threatened and endangered species.

2.2 Alternative 2: Beach Renourishment (Proposed Action)

Beach renourishments within the Federal template may occur periodically (every 7 years) or as needed under emergency conditions (i.e., post-tropical system) for the remaining duration of the TISPP (through 2036). Emergency beach renourishments would occur as authorizations and funding are provided. The authorized project for Tybee Island consists of beach renourishment of 13,200 linear feet of beach between the two terminal groins, (referred to as the Front Beach), the 1,100 linear feet of beach along the South Tip, and 1,800 linear ft of the area known as the Back River Beach.

2.2.1 Front Beach and South Tip Beach

The authorized design for the Front Beach and South Tip Beach is shown below. The design includes a berm at elevation 11.2 ft MLLW[1] with a tolerance of +0.5 ft and a slope of 1:25 (vertical: horizontal) (Figure 5). The tolerance allows the contractor to place material up to +0.5 ft above the lines and grades shown on the plans (Figure 7). The tolerance is included due to the large equipment required for this project and the dynamic shoreline conditions.

After fill placement is complete, the upper 18 inches of the beach fill (from the elevation of 7.13 ft MHW and above) must be tilled and sand compaction testing is required after filling due to potentially influencing sea turtle nesting success, per the 2016 Georgia Department of Natural Resources (GADNR) Guidelines for Beach Nourishment Projects (see Appendix C for more information).

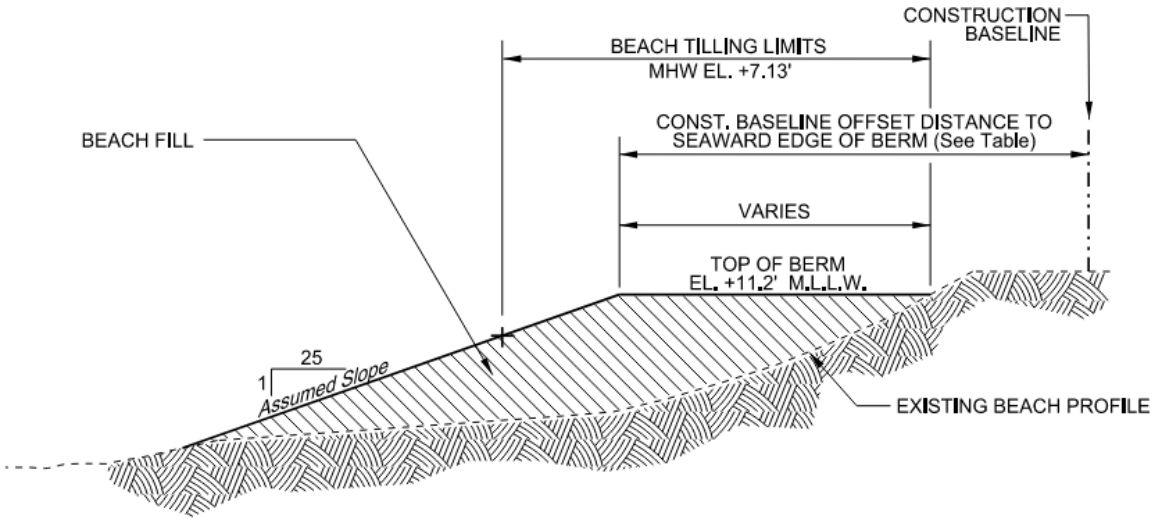

Figure 5. Beach nourishment cross-profile for the TISPP on Front Beach and South Tip Beach.

[1] Project elevations for design and construction are established from NOAA tide gage Station 8670870 at Fort Pulaski, GA and based on MLLW in accordance with ER 110-28160 and EM 110-2-6056. Conversion from MLLW to NAVD88 at Station 9670870: +0' MLLW = +4.05' NAVD88.

2.2.2 Back River Beach

The authorized design for Back River Beach is shown in Figure 6. The design includes a berm at elevation 11.2 ft MLLW with a tolerance of +0.5 ft (Figure 7) and a slope of 1:15 (vertical: horizontal). Beach tilling is required upon completion of fill placement.

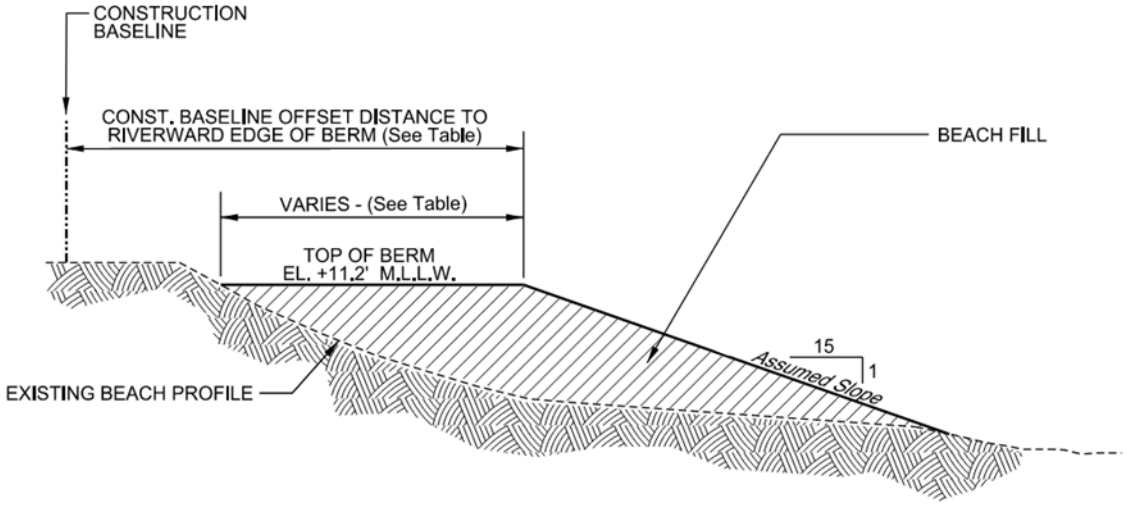

Figure 6. Beach nourishment cross-profile for the TISPP on Back River Beach.

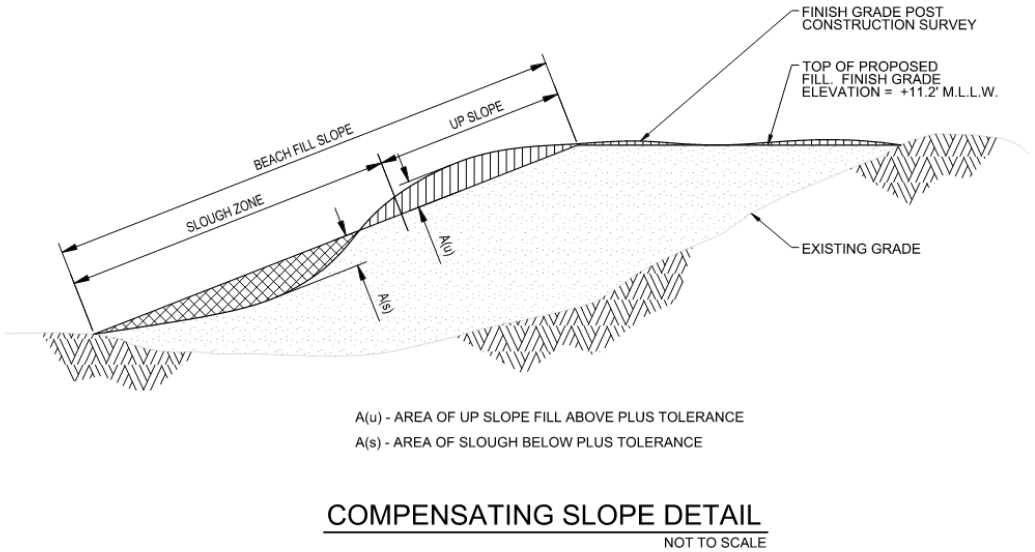

Figure 7. Beach fill tolerance cross-profile for the Federal template.

2.2.3 Offshore Borrow Area

The proposed sand source for beach renourishments is the Tybee Island Borrow Area. The original borrow area is located approximately 4,000 feet southeast of the southernmost Federal terminal groin. The Borrow Area was expanded in 2019 (USACE 2019) with four zones and a Target Depth of -16 ft Mean Lower Low Water (MLLW). During the 2019 expansion, ~625 more acres were added; thus, the total acreage of Tybee Island Borrow Area is ~1,340 acres.

A volume analysis was completed in June 2025, using the 2020 after dredge (AD) survey following the Hurricane Harvey, Irma, and Maria (HIM) Supplemental beach renourishment event. The 2020 AD survey showed that the FY20 beach renourishment used most of the volume in Zone 4 (approximately 300,000 CY remains above -16 feet MLLW; Figure 8). The three remaining zones have approximately 0.7, 1.0, and 1.7 MCY remaining. At the time of each beach renourishment, borrow area locations may be assessed for use. There is enough material to support additional beach renourishments, but if another borrow site is needed, a separate expansion may occur separate from the proposed action. For a history of Tybee Island Borrow Area expansions, see Figure 9.

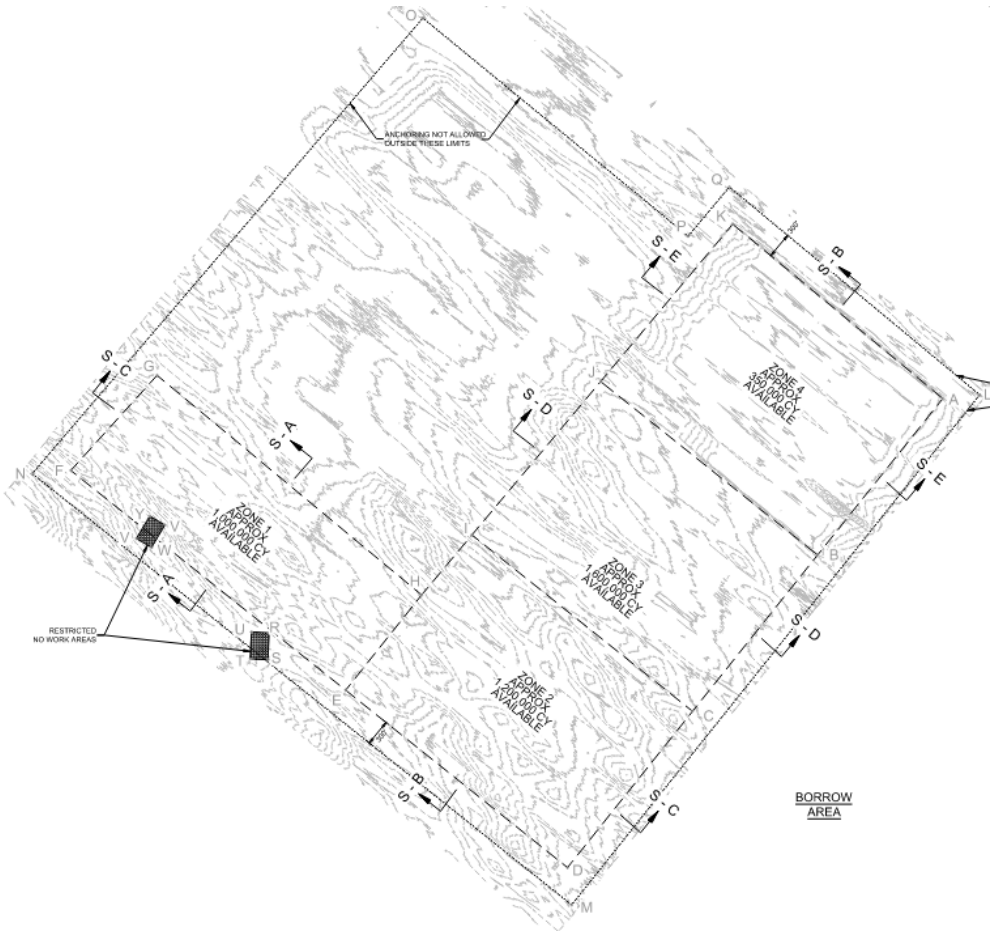

Figure 8. FY20 survey of the Tybee Island Borrow Area.

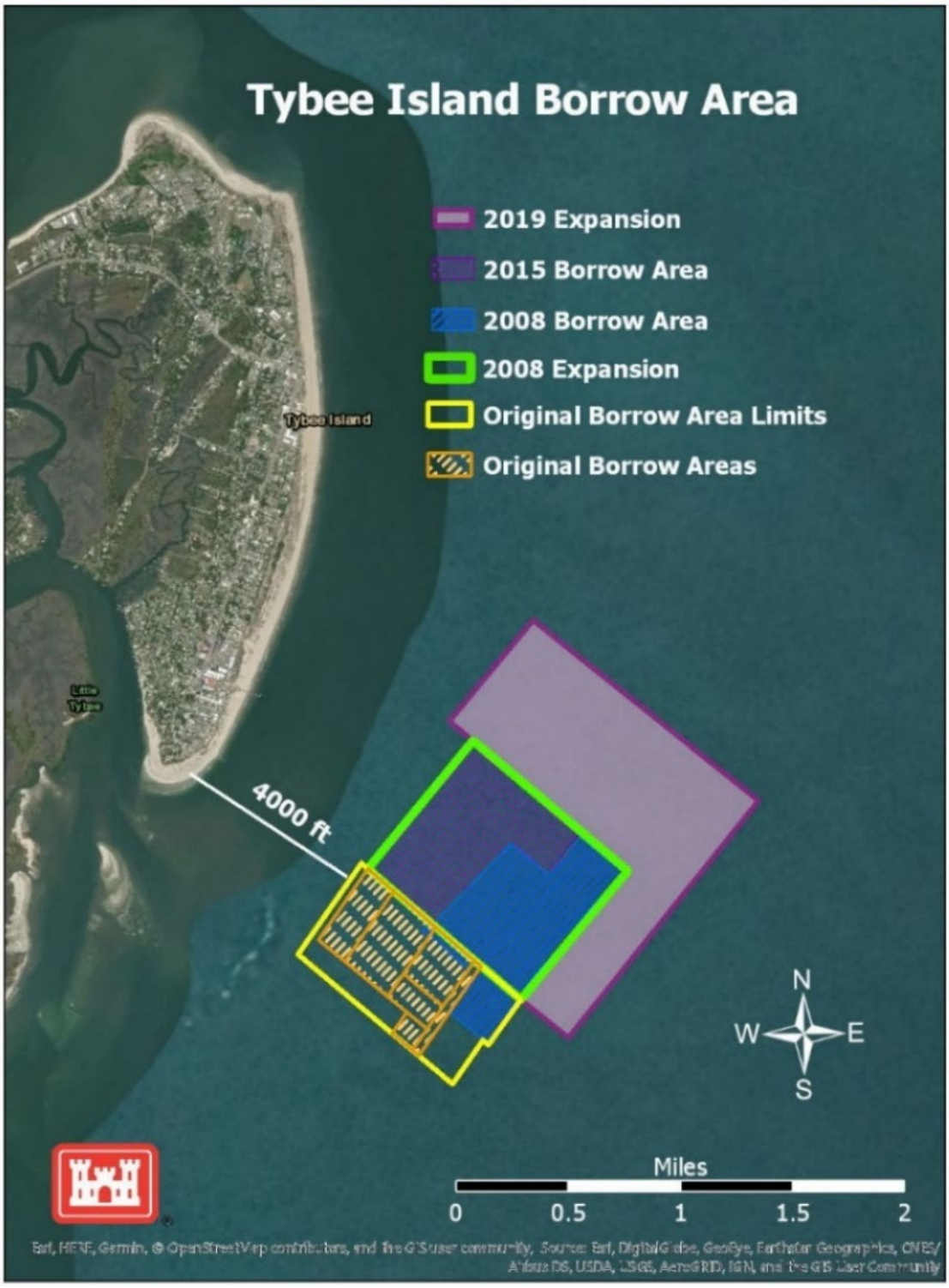

Figure 9. Tybee Island Borrow Area History.

2.2.4 Additional Beach Fill

In addition to renourishing the Federal template as defined in Sections 2.2.1 and 2.2.2, USACE may place additional compatible beach fill within the Federal template to provide material for future dune enhancement by the non-Federal sponsor.

The non-Federal sponsor will have the sole responsibility for the subsequent relocation of this material to construct and enhance the dune system. USACE may place the additional material on the beach up to elevation 13.2 ft MLLW and the non-Federal sponsor will be responsible for moving the material into the dune system prior to sea turtle nesting season. The non-Federal sponsor will assume full responsibility for all aspects of dune construction, including obtaining all necessary permits and complying with all applicable Federal, State, and local laws and regulations. The specific locations for dune enhancement will be determined by the non-Federal sponsor for each beach renourishment cycle, based on assessments of need and vulnerability.

2.2.5 Construction Considerations

The project will be constructed using a hydraulic cutterhead pipeline dredge and support equipment. A submerged pipeline will extend from the borrow site to the southerly tip of Tybee Island. Pipe on the shoreline will be progressively added to perform fill placement along the beach renourishment areas. Temporary toe dikes will be utilized in a shore parallel direction to control the hydraulic effluent and reduce turbidity. The sand will be placed in the form of varying design templates based upon longshore volumetric fill requirements which reflect beach conditions at the time of construction. Additional beach fill will be strategically placed in erosional hot spots.

All lands, easements and rights-of way needed for construction of the TISPP are owned by the non-Federal sponsor. The State of Georgia granted a perpetual easement to the City of Tybee Island for the planning, construction, installation, operation, maintenance, repair, and beach renourishment of beachfront lands claimed by the State of Georgia. Real estate requirements are summarized in Appendix F.

USACE will initiate construction of the first beach renourishment approximately in late 2026. The construction start is dependent on the issuance of required permits and dredge timelines. The estimated construction duration is approximately 65 days. Similar construction durations are expected for subsequent renourishment activities. Additionally, all construction will take place outside sea turtle nesting and hatching season (occurring from 1 November to 30 April). This construction window will avoid impacts to threatened and endangered species.

2.2.6 Best Management Practices

The USACE is proposing to implement best management practices (BMPs) for the proposed action to avoid or minimize effects from the proposed action. As appropriate, this list may be updated in the Final EA dependent on ongoing consultation and

coordination activities with federal and state resource agencies. These BMPs include, but are not limited to the following:

- The Savannah District In-Water Construction Manatee Conditions as agreed upon between USACE Savannah District and the USFWS.

- The GADNR Guidelines for Beach Nourishment Projects (GADNR, 2016).

- USACE will include in contract specifications the following:

    - West Indian manatees, piping plover, rufa red knots, and sea turtles have been sighted in the general vicinity of the project. The Contractor shall maintain a special watch for these species for the duration of this contract for these animals and any sightings will be reported to the Contracting Officer.

    - The contractor will instruct all personnel associated with the dredging and renourishing of the beach of the potential presence of West Indian manatees, piping plover, rufa red knots, and sea turtles, and the need to avoid collisions with these species.

    - All personnel associated with the dredging and renourishing of the beach will be advised that there are civil and criminal penalties for harming, harassing, or killing of West Indian manatees, piping plover, rufa red knots, and sea turtles, which are protected under the Marine Mammal Protection Act of 1972, and/or the ESA of 1973. The contractor may be held responsible for any manatee or ESA-listed species that is harmed, harassed, or killed as a result of project activities.

    - All vessels associated with the project will operate at “no wake/idle” speeds at all times while in the immediate area and while in the water where the draft of the vessel provides less than four feet clearance from the bottom. All vessels will follow routes of deep water whenever possible.

    - Extreme care will be taken in lowering equipment or materials, including, but not limited to pipelines, dredging equipment, anchors, etc., below the water surface to the ocean floor; taking any precautions not to harm any manatee(s) that may have entered the project area undetected. All such equipment will be lowered at the lowest possible speed.

    - To prevent a crushing hazard to West Indian manatees, if plastic pipeline is used to transport material from the borrow site to the beach the pipeline will be secured to the ocean floor or to a fixed object along its length to prevent movement with the tides or wave action.

- Dredge lighting must be shielded, or low sodium, to prevent potential disruption of courtship by sea turtles during 1 May through 30 August.

- The contractor will report immediately any adverse interactions with West Indian manatees, piping plover, rufa red knots, and sea turtles or any other threatened or endangered species to USACE, the USFWS Coastal Suboffice, and the GADNR Notification will also be made to the above offices upon locating a dead, injured, or sick endangered or threatened species specimen. Care will be taken in handling dead specimens to preserve biological materials for later analysis of cause of death. Any dead manatee(s) found in the project area must be secured to a stable object to prevent the carcass from being moved by the current before the authorities arrive. The finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed. In the event of injury or mortality of a manatee, all aquatic activity in the project area must cease pending Section 7 consultation under the ESA between the USFWS and the USACE.

- The contractor will keep a log detailing sightings, collision, or injury to piping plover, rufa red knots, manatees, sea turtles, sturgeon, whales, or other endangered species which have occurred during the contract period. Following project completion, a report summarizing the above incidents and sightings will be submitted to the USFWS and to USACE.

- Contractor will be required to follow the Standard Manatee Conditions, which are listed in section 4.2 of the BA in Appendix C.

- All temporary project materials will be removed upon completion of the work. No construction debris or trash will be discarded into the water. Contractor will be required to remove all construction plastic, fencing and staking from the beach upon completion of the project and before ending up in the ocean. Contractor will be required to account for all construction debris to ensure that none is discarded into the ocean or left on the beach.

- All construction will take place outside sea turtle nesting and hatching season (occurring from 1 November to 30 April). This construction window will avoid impacts to threatened and endangered species.

- The TISPP is a covered project in the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement in the Southeast United States (SARBO) on March 27, 2020, revised July 30, 2020. The USACE will follow all terms and conditions and all relevant project design criteria (PDCs) of the 2020 SARBO. Applicable PDCs include, but are not limited to the following (See Appendix B of the 2020 SARBO):

- Placement of material does not obstruct species movement such as that of sea turtles entering or exiting the beach when nesting, species moving along the shoreline, or through an area.

- Placement does not create a mound in loggerhead sea turtle critical habitat nearshore reproductive habitat that may result in structure that could promote predators (i.e., nearshore predator concentration caused by submerged and emergent offshore structures) or disrupt wave patterns necessary for orientation, and/or create excessive longshore currents.

- For cultural resources in the borrow area a buffer (100-foot radius) to avoid effects will be implemented.

- To minimize risk to public safety, USACE will include in contract specifications the requirement for safety fencing, signage, and notification to U.S. Coast Guard.

- Dredged material or construction equipment will not be placed on adjacent wetlands or vegetation.

Section 3. Environmental Consequences

This section addresses the effects that are reasonably foreseeable and have a reasonably close causal relationship to the alternatives. Resources are organized in alphabetical order.

3.1 Resources Dismissed from Analysis

USACE does not anticipate effects to the following resources: floodplains, hazardous, toxic, or radioactive wastes (HTRW), transportation and navigation, or wetlands as a result from either the No Action Alternative or the Proposed Action Alternative. See Table 3 for descriptions regarding dismissed resources.

Table 3. Resources dismissed from analysis.

Resource	Reason for Dismissal
Floodplains	The project is located on a barrier island. According to Federal Emergency Management Agency (FEMA) floodplain map service, portions of the federal template are within a mapped 100-year floodplain. However, no practicable alternative exists that can avoid placement on the floodplain. The proposed action would not harm people, property, or existing floodplain values, nor will it induce new development in the floodplain. For additional information regarding compliance with Executive Order (EO) 11988, refer to Section 4.2.
Hazardous, Toxic, or Radioactive Wastes (HTRW)	Dredged material is not designated as hazardous waste unless within a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site. The proposed action area is not within a CERCLA site. Additionally, the material is predominately sandy material (90% sand or greater) and is excluded from further testing (40 CFR 230.60 and 40 CFR 227.13(b)).

	There is a potential for hydrocarbon spills with dredging and construction equipment associated with implementation of the proposed beach renourishment project; however, accident and spill prevention plans delineated in the contract specifications should prevent the release of any hazardous or toxic waste (Miller et. al., 2008).
Transportation and Navigation	The waters directly offshore of the TISPP area are used for recreational boating and recreational fishing (discussed in Section 3.12), while the Savannah Harbor Entrance channel is to the North of Tybee Island. There has not been documented shoaling in the Savannah Harbor navigation channel due to past Tybee Island beach renourishments. Effects to transportation and navigation are not anticipated over the project authorization period.
Wetlands	Wetlands are not located on or near the project site, thus the proposed action will have no effect on wetlands.

3.2 Air Quality

3.2.1 Existing Conditions

Ambient air quality along coastal Chatham County is considered Good per the Air Quality Index (NOAA 2025c) due to prevalent onshore and offshore breezes. The project area is in an attainment area as determined by the Clean Air Act and the State Implementation Plan.

3.2.2 Alternative 1: No Action

Under the No Action Alternative, no effects to air quality are expected to occur.

3.2.3 Alternative 2: Beach Renourishment

Air quality effects for Alternative 2 were evaluated using a Greenhouse Gas Analysis (GHG) calculator tool developed by USACE. The tool uses estimated fuel volumes to determine emissions produced by the proposed action. Fuel volumes for the placement of material from the Tybee Island Borrow Area for one beach renourishment of the Federal template is estimated to be 1,935,562 gallons. GHG analysis for dredging from the borrow area and beach placement assumes all fuel used is diesel due to dredging vessels and construction equipment commonly being diesel powered. Using Diesel for GHG analysis also provides the highest estimation of GHG emissions. Emissions from dredging and placement of material for one beach renourishment event is estimated to be 19762.08 metric tons of CO2, 1.954 metric tons of CH4, and 1.819 metric tons of N2O (Table 4).

Table 4. Greenhouse Gas Analysis results for one beach renourishment event.

	CO_2 (mt)	CH_4 (mt)	N_2O (mt)
Front Beach and South Tip Beach	13,269.46	1.312	1.222
Back River Beach	6,492.62	0.6423	0.5978
Total	19,762.08	1.954	1.819

Implementation of Alternative 2 would have short-term, minor negative effects to air quality. This impact would be de minimis. The short-term effect from emissions by the dredge and other construction equipment associated with the proposed beach renourishment project would not significantly affect air quality. Exhaust emissions of the construction equipment, both onshore and offshore, would have a temporary effect on the air quality during and after each beach renourishment event through 2036. No permanent effects to air quality would occur.

3.3 Aquatic and Terrestrial Species

3.3.1 Existing Conditions

Species composition varies by different areas of the beach, with less species diversity occurring in the upper beach zone. The following types of organisms are typically found along sandy beaches in their respective zones: 1) upper beach: burrowing organisms such as talitrid amphipods (sand fleas), ocypodid crabs, and isopods; and transient animals, such as scavenger beetles; 2) midlittoral zone: polychaetes, isopods, and haustoriid amphipods; and interstitial organisms that feed on bacteria and unicellular algae among the sand grains; 3) swash zone: polychaete worms, coquina clams, and mole crabs; and 4) surf zone: juveniles of Federally managed species, shellfish, foraging fish and predatory birds; offshore migrating predators are most common in this zone (Trevallion et al. 1970; Thompson 1973; Reilly and Bellis 1978).

The marine intertidal, or beach areas, are inhabited by ghost shrimp, ghost crabs, hermit crabs, coquina clams, burrowing polychaete worms, and other invertebrates (Sandifer et al. 1980). The most important recreational surf fish include striped mullet, kingfish, spot, red drum, black drum, tarpon, and flounder. Approximately 36 species of birds regularly use the marine intertidal habitat for feeding (Sandifer et al. 1980).

Macrobenthic invertebrates inhabiting these beach areas range from species used directly by man for food, such as shrimp, crabs, oysters, and clams to other species such as polychaetes, crustaceans, mollusks, and other less well known, but valuable, species which make up the remainder of the food chain. Marine subtidal, or open water areas, are populated by a variety of species of phytoplankton and zooplankton.

The vegetative community on the beach dunes is primarily built by shoreline sea purslane, sea oats, panic grass, salt meadow cordgrass, and panic grass. Plants on the dunes are regularly exposed to sea salt spray and sand burial through aeolian transport.

3.3.2 Alternative 1: No Action

Under the No Action Alternative, long-term, negative effects to organisms occupying the various zones of the beach due to habitat loss on the decreased beach berm width may occur. However, no impact would occur to organisms found within the Tybee Island Borrow Area under the No Action Alternative.

Dune plant communities would experience long-term, negative effects under the No Action Alternative. Loss of frontal dune vegetation and escarpment formation would be expected during storm events, resulting in the loss of foredune areas along the central and southern portions of the project area. The storm protection value of the existing dunes within the project area would be reduced by major storm events.

3.3.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would result in short-term, negative effects to intertidal organisms following a beach renourishment event. Placement of sand at the beach fill site will bury most intertidal fauna, resulting in nearly complete mortality as existing intertidal and shallow subtidal areas are covered and converted to dry beach habitat. Some species may be able to migrate vertically depending upon the thickness of the new sand layer (Mauer et al. 1978; Mauer et al. 1986). Several studies have investigated the recolonization of beach infauna following beach renourishment projects and found that nourished beaches exhibit short-term declines in infaunal abundance, biomass, and taxa richness following beach renourishment, recovering to pre-nourishment levels within one year after sand placement (Hurme and Pullen 1988; Dodge et al. 1991; 1995). Given that the periodic beach renourishment cycles may occur every 7 years, with potential emergency beach renourishments in between, organisms would be allowed appropriate time for recolonization.

Placement of sediment that closely matches the existing beach sediment is considered extremely important in the minimization of adverse effects to beach fauna (Hayden and Dolan 1974; Gorzelany and Nelson 1987; Baca and Lankford 1988). Four studies at project locations where the beach fill appeared to match natural sediment characteristics demonstrated limited initial impacts on macro invertebrate abundances and recovery within days to weeks (Hayden and Dolan 1974; Gorzelany and Nelson 1987; Burlas et al. 2001). The proposed TISPP has incorporated several mitigative guidelines for beach nourishment projects to minimize the potential negative effects of beach renourishment on the sandy beach ecosystem. These measures include selection of a highly compatible sediment source to the existing beach sediment and the low silt/clay content of borrow site sediment. This sediment compatibility should reduce the recovery time of softbottom benthic populations following each beach renourishment event and result in lower turbidity levels during project construction.

Implementation of Alternative 2 would result in short-term, negative effects to offshore benthic organisms found within the Tybee Island Borrow Area. Dredging of the offshore borrow site will result in the removal and destruction of the benthic infauna populations within the softbottom sediment of the offshore borrow site. USACE, in coordination with South Carolina Department of Natural Resources (SCDNR), performed benthic monitoring following the 2008 and 2015 TISPP beach renourishments. Subtidal macrobenthic infauna were significantly impacted by dredging of the borrow area and showed signs of recovery by six months, but differences in amphipod abundance between reference and impact sites were maintained through the end of the study (SCDNR, 2016). Changes in the biological community in the borrow area were slow to

develop and may have been a result of a seasonal influence rather than the altered sediment composition (SCDNR, 2016). Discussion regarding other potential impacts to benthic habitats can be found in Section 3.6 (Essential Fish Habitat) and Appendix D (Magnuson-Stevens Act).

Implementation of Alternative 2 would result in long-term, positive effects to the dune plant communities. The proposed periodic and emergency beach renourishments through 2036 will establish more frequent, wider beach areas for protection of existing dune habitat within the project area. The beach renourishment actions will provide a source of material for wind-blown accretion of the existing dune system within the Front, South Tip, and Back River beaches. Posting of signs would continue to provide protection of dunes from human impacts.

No significant adverse impacts, either short-term or long-term to aquatic or terrestrial species are expected from the implementation of the proposed action.

3.4 Coastal Storm Risk

3.4.1 Existing Conditions

The climate of Tybee Island is warm and temperate. According to the National Oceanic and Atmospheric Administration (NOAA), the largest portion of rainfalls occur during the late summer through fall (Figure 10; NOAA 2025a). Peak mean temperatures occur in the July and August (Figure 10; NOAA 2025a). In general, the mid-afternoon thunderstorms common in the area supply most of the rain during the wet months with subtropical climate conditions causing heavy rainfall in September. Changing conditions are predicted to impact Tybee Island through increased risk of tropical storm systems over the next 50 years.

The nearest NOAA Sea Level Trend site to Tybee Island, GA is tide station 8670870, which reports an approximately 3.66 +/- 0.27 mm/yr increase in sea level based on monthly mean sea level data from 1935 to 2024 (NOAA 2025b). This is equivalent to a change of 1.2 ft in 100 years (Figure 11).

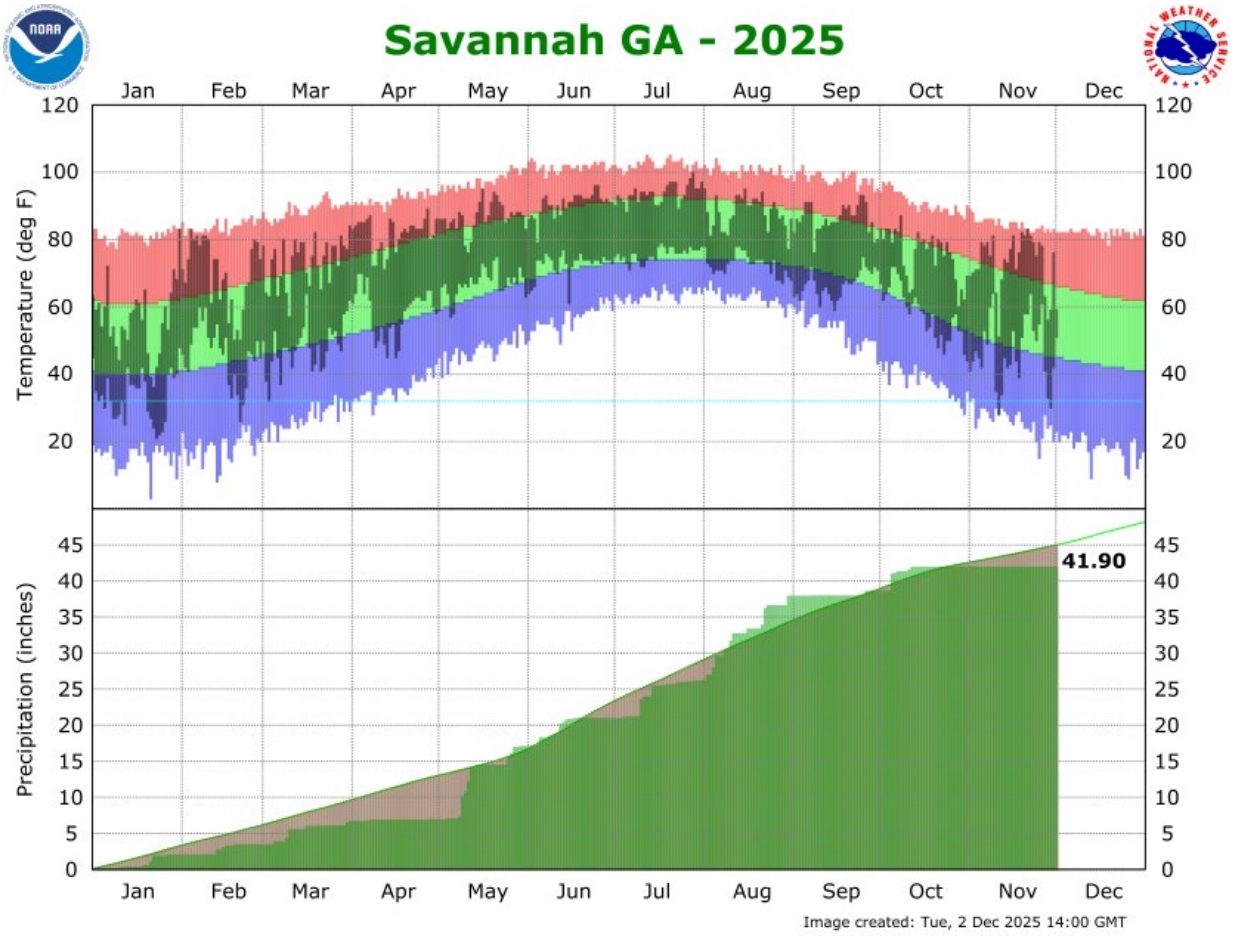

Figure 10. Top graph indicates maximum, mean, and minimum temperatures observed for the Savannah, GA area. Bottom graph represents the precipitation amounts observed for the Savannah, GA area (NOAA 2025a).

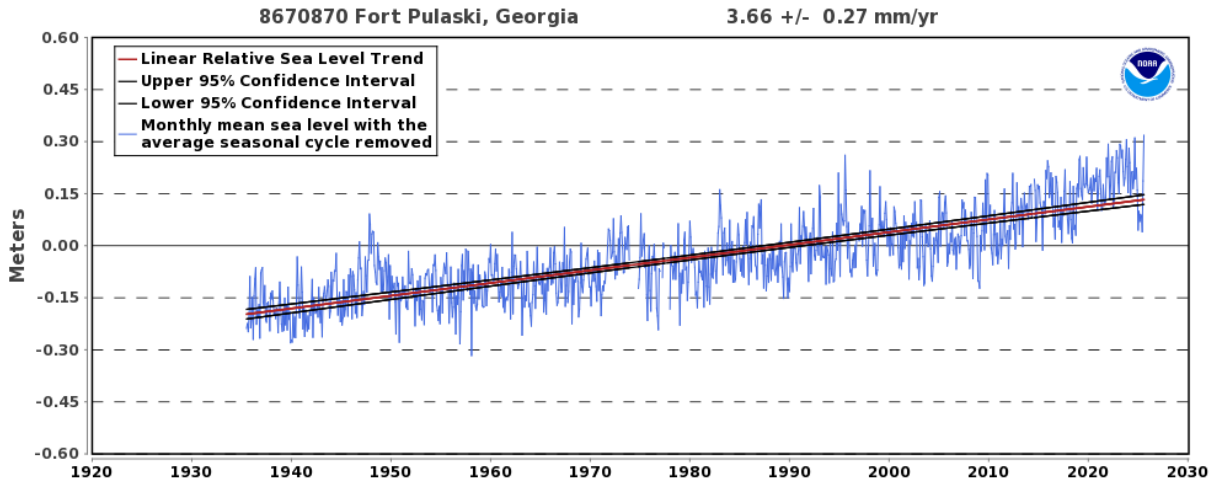

Figure 11. Relative sea level trend for Fort Pulaski, GA (NOAA 2025b).

3.4.2 Alternative 1: No Action

Tropical systems are expected to continue under current climatic conditions. Effects from changing conditions under the No Action Alternative may result in increased damages to structures along the shoreline of Tybee Island due to coastal storm impacts and continuing beach erosion. With consideration of higher sea levels based on NOAA computed trends (Figure 11), damaging effects from storm systems will be compounded due to higher storm surge and wave attack, leading to increased inundation of structures along the shoreline, as well as increased erosion of the beach berm and dunes.

3.4.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would reduce effects from changing conditions as a result of periodic and emergency beach renourishments through 2036. An increased beach berm width is expected to attenuate wave attack from storm systems and reduce the amount of inundation to structures located behind the dune field. Overall, the proposed action is expected to result in positive impacts, no significant adverse effects are anticipated from the proposed action.

3.5 Economics

3.5.1 Existing Conditions

A preliminary Level 1 Economic Reaffirmation was completed in February 2025 to support the FY26 PCA amendment and confirm that the benefit assumptions in the most recent approved decision document remain valid for the next planned renourishment and the remaining period of Federal participation. This update verified existing conditions and key benefit assumptions, referencing the TISPP 2013 Limited Revaluation Report (LRR) and the approved 1998 Special Report for the South Tip Beach/Tybee Creek component. The scope of the project remains unchanged since the last approved LRR, with renourishment projected to occur at 7-year intervals over the remaining federal participation period, which has been extended until 2034, allowing for two additional renourishments scheduled for FY27 and FY34.

The Level 1 update reaffirmed that the project remains economically justified when evaluated consistent with applicable policy for incidental recreation benefits. The update computed benefit-to-cost ratios at the required discount rates and confirmed that the project remains within applicable cost limitations, including the Section 902 limit. Consistent with established guidance and prior decision documents, recreation outputs are incidental to the authorized coastal storm risk management purpose. Where recreation benefits are credited for National Economic Development (NED) purposes, they are applied consistent with policy limitations outlined in the approved decision documents. Remaining periodic and emergency renourishments may be economically reviewed, as appropriate, prior to future placement activities.

3.5.2 Alternative 1: No Action

Under the No Action Alternative, discontinuation of Federal participation in future renourishment would result in long-term negative socioeconomic effects. Shoreline erosion and reduced beach berm elevation would diminish recreational beach width and reduce the level of storm risk reduction provided by the beach profile. Beach loss would result in a reduction in tourism and local revenue to Chatham County and the City of Tybee Island.

3.5.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would result in long-term positive socioeconomic effects by maintaining the authorized beach template, preserving the storm risk reduction benefits, and supporting the recreational amenity value of the shoreline. By reducing erosion related impacts to the beach and limiting storm damages to shoreline infrastructure, the proposed action would support continued tourism activity and the associated local economic benefits. No significant adverse effects to economic resources are expected as a result of the proposed action.

3.6 Essential Fish Habitat

3.6.1 Existing Conditions

Essential fish habitat (EFH) is defined by the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended (16 U.S.C. § 1802(10)) as those waters and substrate necessary for fish spawning, breeding, feeding, or growth to maturity. The MSA is the primary law responsible for governing marine fisheries management in Federal waters and aims to promote conservation, reduce bycatch, and rebuild overfished industries. A detailed EFH assessment pursuant to MSA can be found in Appendix D. The following information summarizes that analysis.

Within the project area, EFH adjacent to and within the proposed placement sites include the estuarine and marine water column, unconsolidated bottom, intertidal flats, oyster reefs, and coastal inlets.

Habitat Areas of Particular Concern (HAPC) are a subset of EFHs that are rare, stressed by development, provide important ecological functions for Federally managed species, or are especially vulnerable to anthropogenic (or human impact) degradation. HAPCs may include areas used for migration, reproduction, and development. The MSA does not provide any additional regulatory protection to HAPCs. However, if HAPCs are potentially adversely affected, additional inquiries and conservation guidance may result during the National Marine Fisheries Service (NMFS) EFH consultation (NMFS 2008). HAPCs can include intertidal and estuarine habitats. Within and near the project area, there are two HAPC: coastal inlets and oyster reefs. The South Atlantic Fishery Management Council (SAFMC) has designated coastal inlets and state-designated overwintering areas of Georgia and South Carolina as HAPCs for

white, brown, and pink shrimp and oyster reefs as HAPCs for the snapper grouper complex. The oyster reefs are located west of the direct placement areas. Table 5 below shows species potentially located in the project area that are managed by NMFS, the Mid-Atlantic Fisheries Management Council (MAFMC), and the SAFMC.

Table 5. NMFS, MAFMC, and SAFMC managed species potentially located in the project area (NOAA 2025d).

Common Name	Scientific Name	Function	Life Stage Use(s)	Fisheries Management Plan
Atlantic Sharpnose Shark	*Rhizoprionodon terraenovae*	Refuge, Forage, Nursery	Juvenile, Adult, Neonate	NMFS Highly Migratory Species
Blacknose Shark	*Carcharhinus acronotus*	Refuge, Forage	Juvenile/Adult	NMFS Highly Migratory Species
Blacktip Shark	*Carcharhinus limbatus*	Refuge, Forage, Nursery	Juvenile, Adult, Neonate	NMFS Highly Migratory Species
Bluefish	*Pomatomus saltatrix*	Refuge	Eggs, Juvenile, Larvae	MAFMC Bluefish
Bonnethead Shark	*Sphyma tiburo*	Refuge, Forage, Nursery	Juvenile, Adult, Neonate	NMFS Highly Migratory Species
Bull Shark	*Carcharhinus leucas*	Refuge, Forage	Juvenile/Adult	NMFS Highly Migratory Species
Coastal Migratory Pelagics	*Scomberomorus maculatus* (Spanish Mackerel)	Refuge, Forage, Nursery	ALL	SAFMC Coastal Migratory Pelagics
Finetooth Shark	*Carcharhinus isodon*	Refuge, Forage	ALL	NMFS Highly Migratory Species
Lemon Shark	*Negaprion brevirostris*	Refuge, Forage	Adult, Juvenile	NMFS Highly Migratory Species
Penaeid Shrimp	*Penaeus aztecus* (Brown Shrimp) *Penaeus duorarum* (Pink Shrimp) *Penaeus setiferus* (White Shrimp)	Refuge, Forage, Nursery	ALL	SAFMC Shrimp
Sand Tiger Shark	*Carcharias taurus*	Refuge, Forage	Adult, Neonate/Juvenile	NMFS Highly Migratory Species
Sandbar Shark	*Carcharhinus plumbeus*	Refuge, Forage	Adult, Juvenile, Neonate	NMFS Highly Migratory Species
Scalloped Hammerhead Shark	*Sphyrna lewini*	Refuge	Neonate	NMFS Highly Migratory Species
Snapper Grouper Complex	*Lutjanus griseus* (Gray snapper) *Mycteroperca microlepis* (Gag grouper)	Forage	ALL	SAFMC Snapper Grouper

Spinner Shark	*Carcharhinus brevipinna*	Nursery	Juvenile/Adult	NMFS Highly Migratory Species
Summer Flounder	*Paralichthys dentatus*	Forage	Juvenile, Larvae	MAFMC Summer Flounder, Scup, Black Sea Bass
Tiger Shark	*Galeocerdo cuvier*	Forage	Juvenile, Adult, Neonate	NMFS Highly Migratory Species

3.6.2 Alternative 1: No Action

Under the No Action Alternative, USACE would not disturb EFH or HAPCs within the project area because dredging and placement activities would not occur. However, the No Action Alternative may have short and long-term adverse effects to EFH because of ongoing degradation of intertidal habitat from erosional forces.

3.6.3 Alternative 2: Beach Renourishment

Effects to EFH within the action area under implementation of Alternative 2 are listed in Table 6. Appendix D provides a more detailed analysis of effects to EFH, and these effects are summarized here.

Table 6. EFH categories likely to be in the project area (NOAA 2025d; NMFS Procedure 03-201-16).

Essential Fish Habitat	Potential Presence		Potential Effects
	Within Project Area	Within Placement Area	Proposed Action
Estuarine and Marine Water Column	☑	☑	Short-term adverse but not substantial
Unconsolidated Bottom	☑	☑	Short-term adverse but not substantial
Intertidal Non-Vegetative Flats	☑	☑	Short-term adverse but not substantial
Oyster Reefs	☑		Short-term adverse but not substantial
Coastal Inlets	☑	☑	Short-term adverse but not substantial

The proposed action would have potential direct and indirect effects on EFH, managed species, and habitat associated with managed species.

Estuarine and Marine Water Column

Dredging in the borrow area and placement of sediment for beach renourishment may cause short-term effects to turbidity within the estuarine and marine water column. Due to the sediment being coarse-grained, sandy material, it will settle out quickly and not result in long lasting turbidity plumes. Material placement-generated turbidity plumes are limited to an area only a few hundred feet to a few thousand feet and most turbidity settles out quickly once dredging and material placement is complete (NMFS 2020; NOAA 2023). In a study conducted in the Savannah Harbor, it was found that after

construction ends increases in total suspended solids (TSS) are negligible within 12 to 24 hours (Gailani et al. 2003).

Additionally, the project area is naturally turbid because of the dynamic nature of the tidally influenced systems; species that inhabit these systems are acclimated to a highly turbid environment.

No permanent or temporary effects or changes in temperature, dissolved oxygen levels, salinity or pH would occur within the Atlantic Ocean or within the project area as a result of turbidity plumes from the placement activities.

Unconsolidated Bottom

The proposed offshore borrow area would require removal of material from the open water habitat/unconsolidated EFH. Given the abundance of nearby habitats for organisms to recruit from, the newly dredged areas will likely recover quickly (NMFS 2020). Any loss of habitat would be short-term, and through primary and secondary succession, would not cause substantial adverse effects to the reestablishment of the existing benthic communities or alter the capacity of the EFH to support healthy populations of managed species over the long-term. Recolonization by opportunistic species would be expected to begin soon after the dredging activity stops, and recovery would be expected within one to two years.

The amount of unconsolidated bottom (80 acres of subtidal bottom) that will be temporarily impacted by the beach renourishment will account for much smaller percentage of the total area supporting this EFH type within the study area.

Intertidal Flats

The proposed action will place beach quality sediment in some of Tybee Island's intertidal flats (60 acres of intertidal area), causing burial of some organisms while others more motile will likely avoid and survive the dispersal event. Effects to intertidal areas are expected to be temporary and minor in nature. Although intertidal areas will experience some negative effects, the habitat will increase in size due to the fill placement resulting in an overall benefit. The additional sediment will provide substrate for intertidal flat habitat, and according to a study conducted by the SCDNR, intertidal macrobenthic infauna recovered four months after renourishment and subtidal macrobenthic infauna showed signs of recovery by six months (SCDNR 2016).

Oyster Reefs

Oyster reefs are located approximately 1,600 feet west of the placement area. While there may be turbidity plumes created by construction activities, it is unlikely that the turbidity plumes would reach the active oyster reefs. If turbidity plumes extend to the

reefs, the oysters may experience minor, indirect effects from sediment movement from the site during construction and long-term from natural processes.

The indirect effects may occur from placement-generated turbidity plumes during construction. The plumes will settle out quickly and increases in TSS are negligible within 12 to 24 hours. Throughout their range, oysters occur in naturally turbid environments and have adapted a filtering mechanism for inorganic particulates. Turbid environments and temperature are generally within optimal range for filtration throughout the year, effects would be similar regardless of the time of year placement could occur. It is expected that the turbidity plumes generated during placement would have negligible temporary effects to oyster reef EFH in the project vicinity.

Coastal Inlets

The effects to coastal inlets from the proposed action include elevated turbidity during construction; however, the effects are expected to be short-term and minor in nature. The short-term increases in turbidity would not have a measurable effect on the water temperature or dissolved oxygen concentrations. No permanent or temporary effects or changes in temperature dissolved oxygen levels, salinity, or pH would occur once placement activities are complete.

Potential Effects to Managed Species

Localized temporary turbidity would occur during dredging and placement activities. This could potentially have adverse effects on various species physiology and behavior. However, the locations being proposed dredging and placement activities are in already naturally turbid environments and due to the high sand content of the material being proposed for placement activities, turbidity levels will return quickly back to background levels after construction efforts are completed. More developed and mobile life stages would most likely migrate to other suitable area habitats avoiding localized construction. There is abundant similar adjacent habitat around Tybee Island. Because these fish can migrate away from the dredging and placement activities, the effects of any turbidity plumes, which are transient and temporary, would be minimal. Additionally, the suspended solid levels expected for cutterhead dredging (up to 550.0 mg/L) are below those shown to have adverse effect on fish (typically up to 1,000.0 mg/L) (NOAA 2023).

Based on the analysis above, USACE has determined that the proposed action would not cause significant adverse effects to EFH, and managed species located within the action area. Effects to EFH and managed species that use this habitat would be temporary and minor in nature and do not reduce either the quality or quantity of EFH in the project area.

3.7 Geology/Soils

3.7.1 Existing Conditions

The coastal barrier islands of Georgia are erosional remnants of Pleistocene coastal sand bodies extending from the mainland toward the Atlantic Ocean. Characteristic development includes oceanward frontages of beach dune ridges constructed during the present or Holocene high sea level stand. The extremely wide, shallow and gently sloping continental shelf, sand available for coastal deposition, and changing conditions are the major geologic factors controlling deposition on these islands.
The primary factors influencing erosion of Tybee Island include wind, tidal fluctuations, tidal currents and waves (see Section 3.9 for a description of hydrologic processes). Natural erosional processes include the concentration of wave energy at the south end of the island, the seasonal production of wave-induced coastal currents flowing toward the Tybee Inlet throat, and the asymmetrical tidal flow which produces a strong flood dominated channel adjacent to the south end of Tybee Island. This flood dominant channel at the south tip of the island is evident in aerial photographs as well as an ebb dominant channel close to the Little Tybee Island shoreline. Historic aerial photographs of the Back River Beach area show cyclic erosion and accretion cycles similar those on the oceanfront. Overall, longshore transport for Tybee Island is from north to south. A nodal point is located at the Second Street Beach and material is transported to the north. Material from the beach moves to the offshore bar south of Tybee island and eventually to other southern barrier islands.

Studies conducted by the Engineering and Research Development Center (ERDC) (Smith et al. 2008) found that erosion is occurring on the northern end of the island and accretion in the southern end, with 73% of the erosion to the shoreline and shelf being caused by the Savannah Harbor Shipping Channel and the rest due to natural processes. The Savannah Harbor Navigation Project maintains that channel position for navigation safety and efficiency but cuts off the natural sand bypassing mechanism. Construction of jetties and channel dredging generally causes deflation of the ebb shoal and eventual downdrift erosion (Smith et al. 2008).

Material placed on the beach will be obtained from the Tybee Offshore Borrow Area located approximately one mile off the coast of Tybee Island (see Section 2.2.3) with an average depth of approximately -10.3 feet MLLW ranging from -5 to -17 feet MLLW. Sediment in the proposed borrow area and on Front, Back River, and South Tip beaches were characterized using hydrographic survey, vibracore borings, and materials testing. Per the 2016 Revised Georgia Department of Natural Resources Guidelines for Beach Nourishment, the fill material must be greater than 90% sand. The 2019 expanded borrow area consists of light gray to light brownish gray, well graded (poorly sorted) sand with a shell content of approximately 8% by volume. No contaminants were found that exceed sediment ecological screening values set forth in the USEPA Region 4 Ecological Risk Assessment Supplemental Guidance (USEPA, 2015). In general, approximately 3.4 million cubic yards (MCY) of beach-compatible sand is readily available in the proposed borrow area (see Appendix B).

3.7.2 Alternative 1: No Action

Under the No Action Alternative, erosion of the existing dunes and berm would continue on Tybee Island causing long-term negative effects. When flood events occur, water will be funneled through these weak points causing damage to shoreline and protective dune system.

Implementation of the No-Action Alternative would not impact the sediments of the offshore borrow site or the existing beach profile.

3.7.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would reduce the negative effects of the erosional processes on the Tybee shoreline. Adding sediment to the berm will aid in erosion control of the berm and create a large protective measure for the existing dune fields. Areas where there are no dunes would continue to be weak points in the dune fields. When flood events occur that can top the larger berm, water will be funneled through these weak points causing damage to the dune fields. Renourishing the berm will bring the elevation of the berm up to +11.2 feet MLLW with a 1:25 (vertical: horizontal) slope to closure along the front beach. Beach renourishment would allow for a more stabilized shoreline through 2036 and increased protection of the dune system. The periodic and emergency beach renourishment events would mitigate and reduce the effects of erosion after coastal storms.

Implementation of Alternative 2 would result in the removal of sediment from the borrow site. However, it is expected that the lost sediment will be renourished naturally over time.

Implementation of Alternative 2 would not have long-lasting effects to the sediment characteristics of the existing beach. Although differing sources of borrow material have been historically placed onto Tybee Island, similarities exist between the existing beach sediment data sets, suggesting no long-term negative effects on beach sediment characteristics. The sediments within the proposed borrow site expansion are closely compatible with the existing beach sediments of Tybee Island in terms of grain size characteristics and percent shell content (refer to Appendix B). Overall, the proposed action would not result in significant impacts, either short-term or long-term to geological resources or soils.

3.8 Historic Properties and Cultural Resources

The management of cultural resources is regulated under Federal laws such as: the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. § 300101 et seq.); the Archaeological and Historic Preservation Act of 1974, as amended (54 U.S.C. §§ 312501-312508); the American Indian Religious Freedom Act of 1978, as amended (42 U.S.C. §§ 1996 and 1996a); the Archeological Resources Protection Act of 1979, as

amended (16 U.S.C. §§470aa-470mm); NEPA, as amended (42 U.S.C. § 4321 et seq.); the Native American Graves Protection and Repatriation Act of 1990, as amended (25 U.S.C. § 3001 et seq.); the Abandoned Shipwrecks Act of 1987, as amended (43 U.S.C. §§2101-2106); the Sunken Military Craft Act of 2004, as amended (10 U.S.C. § 113 et seq.), and Executive Orders 11593 and 13175.

Historic properties considered in this study are cultural resources that are defined by the NHPA as properties listed, or eligible for listing, on the National Register of Historic Places (NRHP). Historic properties include buildings, structures, sites, districts, objects, cultural items, Indian sacred sites, archaeological artifact collections, and archaeological resources (36 C.F.R. § 800.16(l)(1)).

3.8.1 Existing Conditions

Tybee Island was relatively uninhabited and used mainly for purposes related to navigation and defense until after the Antebellum period (1820 -1860). Historic, or architectural, resources located on the northern end of the island reflect the island's ties to its military and maritime history and are some of the oldest structures on the island. Historic resources elsewhere on the island chronicle the island's growth into a coastal resort community from the 1870s through the 1960s. Approximately 527 historic resources, including three NRHP-eligible districts and four individual listings, are located on Tybee Island. Many of these resources, especially those located along the shoreline, are vulnerable to flooding and coastal storm surges.

The Area of Potential Effects (APE) for direct effects is defined as the beach face located within the project footprint, construction lay down and access areas and borrow area. Previous surveys within the APE identified three archaeological sites (9CH1449, 9CH1506, and 9CH1507), which are all 19th-20th century shipwrecks. Two sites are located along the Atlantic side (east side) of the island, and the other is located on the western side along Back River.

Two anomalies are also located within the borrow area portion of the APE. USACE contracted with LG2 Environmental Services, Inc. to conduct a remote sensing survey and diver investigation of the proposed borrow area expansion in March 2019 and May 2019, respectively. The remote sensing survey identified 64 magnetic anomalies, five acoustic side scan sonar target and zero sub-bottom features. Of the targets identified, five anomalies were the highest priority for diver investigation. These targets were chosen as they are in locations that would be difficult to buffer and avoid in the borrow area. None of the diver investigated anomalies/targets located cultural resources. Two other magnetic anomaly clusters located along the side slope of the southern portion of the borrow area contained signatures that are indicative of potential submerged cultural resources. These did not undergo diver investigation, and USACE has implemented a buffer (100-foot radius) to avoid effects.

More on the archaeological and historical setting of the project area, a summary of surveys and inventories of cultural resources within the APE, a determination of effects

for the current undertaking, and consultation performed in accordance with Section 106 of NHPA can be found in Appendix E.

3.8.2 Alternative 1: No Action Alternative

Under the No Action Alternative, long-term adverse effects to historic properties and other cultural resources on Tybee Island would occur. No adverse effects are expected to cultural resources within the borrow area due to the No Action Alternative.

Under the No Action Alternative, ongoing erosion poses adverse effects to historic properties and other cultural resources within the project footprint. Exposure to the elements causes wood to degrade, saltwater leads to metal corrosion, and smaller artifacts could be carried away from the site during coastal storms. Exposure would also increase the potential for vandalism and looting of the sites. Indirect adverse effects could occur to historic resources outside of the project footprint as the erosion creates vulnerable areas, or breaches, within the project template where flooding from storm surges could occur. Currently the berms, sediments, and dunes that are part of the project reduce flood risk damages to historic resources. Historic properties could be indirectly adversely affected by flooding caused by storm surges. These areas would remain vulnerable until the next scheduled beach renourishment.

3.8.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would result in no adverse effect to historic properties. Under this alternative, sediments would be placed on the shorefront to fill areas where erosion is occurring within the project footprint. Sediments would be obtained from an offshore borrow area, and established buffers will be observed. Consultation conducted with the Georgia State Historic Preservation Office (SHPO) for past periodic beach renourishment actions (1987, 2000, 2008 and 2015) determined that placement of sediments on the shorefront in the project footprint has no effect on historic resources, NRHP-listed districts or individually listed properties, or archaeological sites. Existing parking lots and the beach area will be used as construction staging areas and beach access will be through existing access points. No new facilities will be required for the beach renourishment. No adverse effects are posed to historic or archaeological resources within the APE.

Indirect effects are limited to the area approximately 960 feet inland from the western edge of the project footprint. Historic properties and other cultural resources would receive indirect benefits from implementation of this alternative, as the sediments would fill the vulnerable areas and provide more protection from flooding due to coastal storm surges. The APE for visual effects encompasses the project footprint, and these will be temporary and minimal in nature.

USACE coordinated the results of the remote sensing investigation with the GA SHPO and tribes pursuant to Section 106 of the NHPA and determined that the proposed action would have no adverse effect on historic properties located within the APE

(Appendix E). Should USACE determine that the buffered anomalies have reduced the available capacity to a level that is not sufficient for beach renourishment, diver investigations of the two anomalies will be required to determine significance pursuant to the National Register of Historic Places. The results would be coordinated with the GA SHPO and tribes. This action is not anticipated during the undertaking as proposed.

3.9 Hydrology

3.9.1 Existing Conditions

The Front Beach shoreline of Tybee Island is heavily influenced by wave refraction energy, ebb/flood tides, and cross-shore and longshore currents. Ocean swell and sea data indicate that the duration of both seas and swells of all magnitudes is greatest from the southeast. The wave directions range from northeasterly to southerly. Data was downloaded from the ERDC Coastal Hydraulics Laboratory (CHL) Wave Information Study (WIS) Data Portal to show these wind and wave directions from on offshore Save Point, ST63368, which was developed during the South Atlantic Coastal Study (Figure 12). The predominant winds of higher velocity are from the westerly quadrant, while the prevailing winds of greater duration are from the northeasterly quadrant (Figure 12).

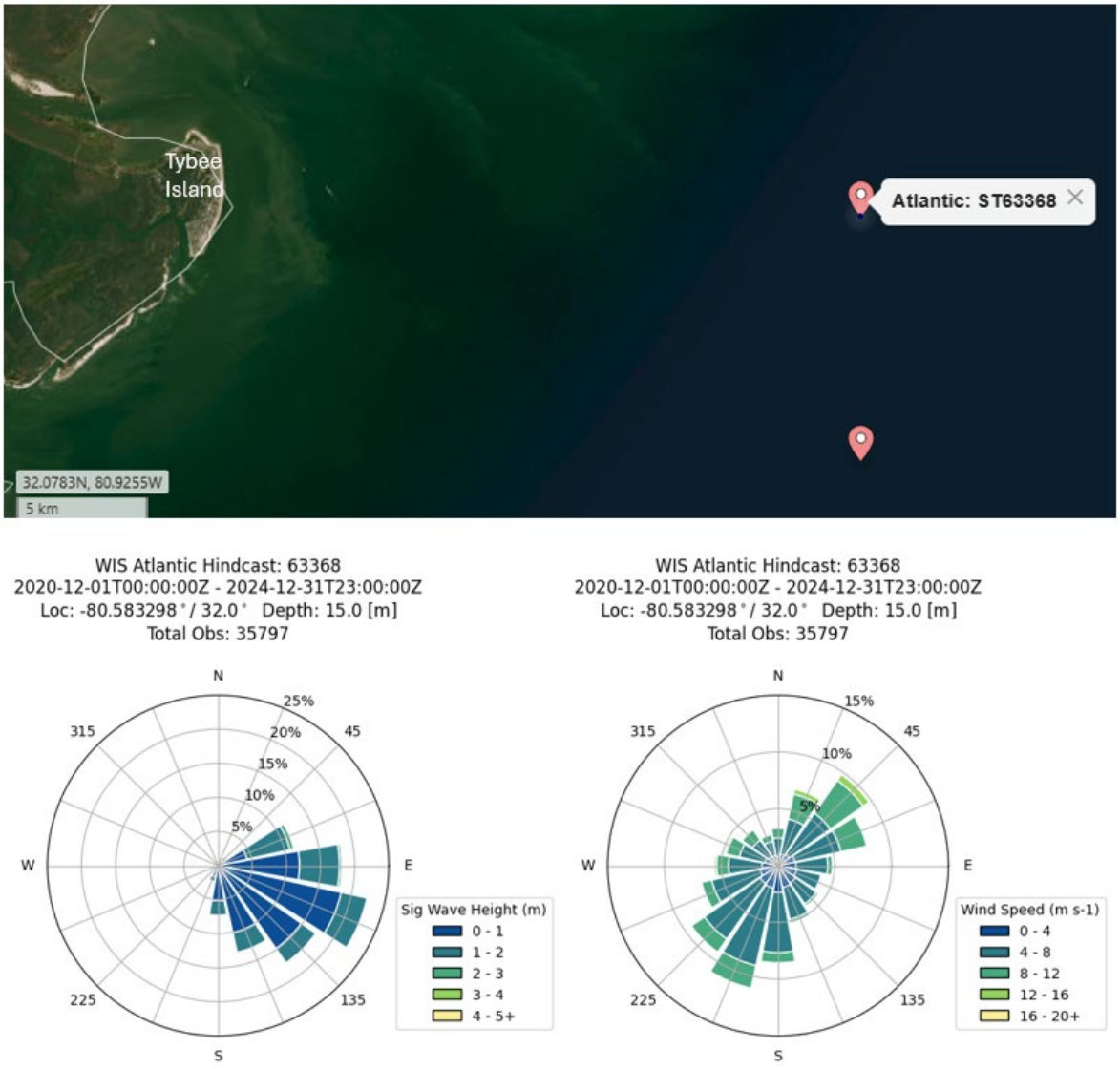

Figure 12. Save point location offshore of Tybee, ST63368. The bottom left of the figure shows the Wave Rose and the bottom right shows the Wind Rose.

The mean tidal range on Tybee Island is approximately 7 feet, and the spring range is 9 feet (NOAA 2025b). In the Back River, tidal currents during maximum ebb and floodtides range from approximately 1.5 to 2 feet per second and generally are swifter in the center of the creek. Waves along the Back River on the south end of the shoreline are typically smaller than the oceanfront waves. NOAA operates and maintains a nearby tide gage which tracks tidal fluctuations in the area and is located within approximately a 1-mile radius of the project area (Table 7; Figure 13). The gage is located on the Savannah River on Cockspur Island. Table 7 provides the water levels and tide ranges with respective to the MLLW datum.

Table 7. Water levels and tide ranges for the Fort Pulaski NOAA gage (NOAA 2025b).

Station ID	Station Name	Mean Higher High Water (ft)	Mean High Water (ft)	Mean Tide Level (ft)	Mean Sea Level (ft)	Mean Low Water (ft)	Mean Lower Low Water (ft)
8670870	Fort Pulaski, GA	7.5	7.13	3.67	3.82	0.21	0.0

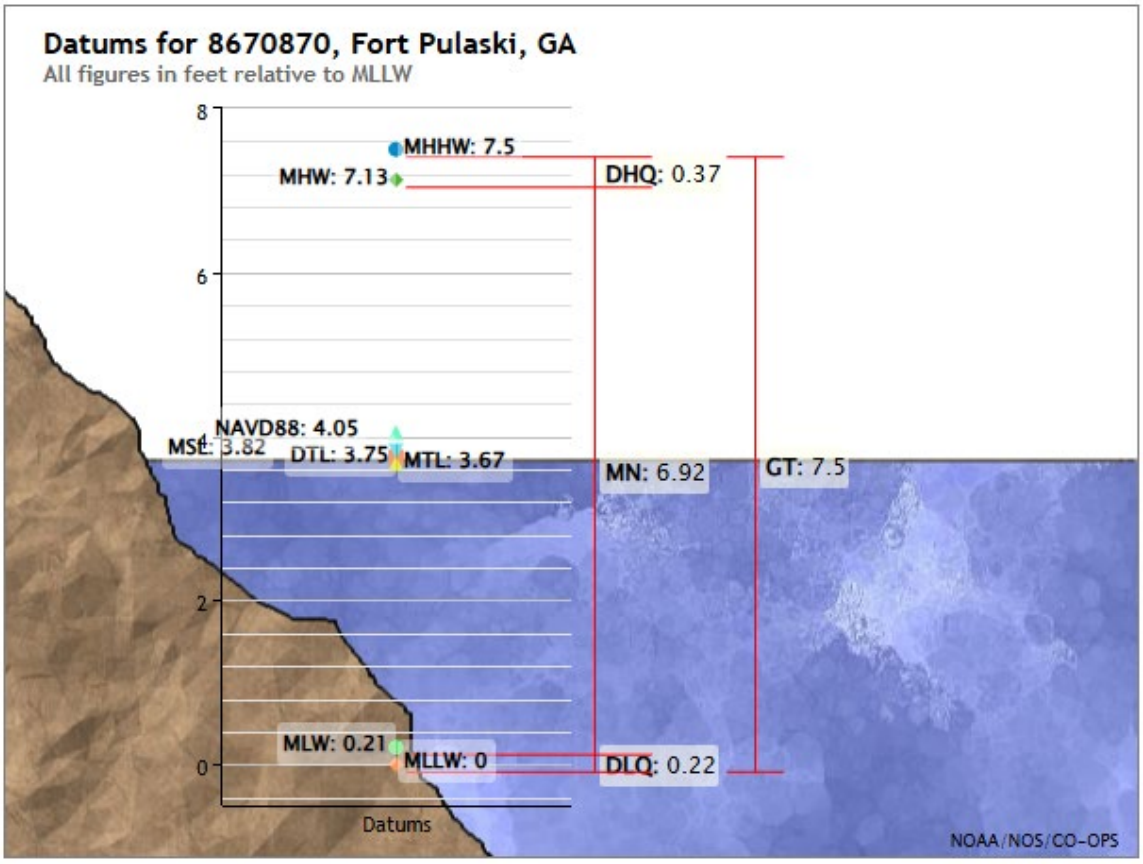

Figure 13. Datums for the Fort Pulaski NOAA gage (NOAA 2025b).

3.9.2 Alternative 1: No Action

Under the No Action Alternative, the shoreline would be left to erode, leading to progressively smaller and narrower beach berms. A wide berm acts as a natural barrier, absorbing the energy of storm-driven waves before they reach the shore. Without the protection of a renourished beach, the diminished berm would be less effective at dissipating this wave energy. Consequently, coastal storm events would allow destructive wave attacks, storm surge, and inundation to occur much higher up on the

shoreline, increasing the risk of damage to coastal properties and infrastructure over time. The No Action Alternative would not have any effects on the offshore borrow area.

3.9.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would introduce short and long-term effects to the area's coastal hydrology. During the offshore dredging phase, no impacts are anticipated due to the borrow area's depth and distance from the shore. Following the placement of new sediment in the nearshore environment, the wider and higher berm will cause minor (insignificant) and temporary alterations to local water flow as the beach profile stabilizes. These temporary changes may include a shift in the location and frequency of rip currents and cause both longshore and cross-shore sediment transport to occur slightly further offshore as the shoreline extends. Ultimately, the primary long-term benefit of the periodic and emergency renourishments is the enhanced coastal protection. By increasing the berm's width, the project will more effectively reduce the energy of storm-driven waves and minimize the impact of storm surge, resulting in a lasting positive effect on coastal stability through 2036.

3.10 Noise Levels

3.10.1 Existing Conditions

Noise levels on Tybee Island are limited to 60 – 75 A-weighted decibels (dBA) in residential and commercial zones, respectively, per Sec. 22-112(b)(3) City of Tybee Noise Ordinance. The major noise producers on the Tybee Island shoreline include the breaking surf, birds, beach goers, adjacent commercial and residential areas, and boat and vehicular traffic.

3.10.2 Alternative 1: No Action

Under the No Action Alternative, no effects to noise levels would occur.

3.10.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would result in short-term insignificant negative effects from noise levels. Equipment used during construction will temporarily raise the noise level in the areas of the dredge and the discharge point on the beach.

3.11 Protected Species and Critical Habitat

3.11.1 Existing Conditions

The following species in Table 8 have been listed as threatened or endangered pursuant to the Endangered Species Act (ESA) of 1973 by the U.S. Fish and Wildlife Service (USFWS), and as occurring or possibly occurring within the project area using the Information for Planning and Consultation (IPaC) tool (Project Code: 2025-0126820). USACE has assessed the listed species and critical habitats that may be

present in the action area and made a determination of the effects, which are summarized below in Table 8. Each of these species are also described in detail in the Biological Assessment (BA), Appendix C.

The 2020 South Atlantic Regional Biological Opinion (SARBO) provides compliance with all species listed under the National Marine Fisheries Service Protected Resources Division (NMFS-PRD; SARBO 2020). The TISPP is a covered project in the 2020 SARBO. The USACE will follow all terms and conditions and all relevant project design criteria of the 2020 SARBO. The 2020 SARBO covers the following federally listed species under NMFS jurisdiction that may be in the project area: North Atlantic Right whale, Sei whale, Blue whale, Sperm whale, Fin whale, Kemp's Ridley sea turtle, Hawksbill sea turtle, Loggerhead sea turtle, Leatherback sea turtle, Green sea turtle, Oceanic Whitetip shark, Giant manta ray, Atlantic sturgeon, and Shortnose sturgeon.

As the TISPP is a covered project in the 2020 SARBO and USACE will follow all terms and conditions all terms and conditions and all relevant project design criteria of the 2020 SARBO, this section focuses on summarizing the effects to species under USFWS jurisdiction.

Table 8. USFWS ESA threatened and endangered species and critical habitat found within the project area.

Group	Common Name	Scientific Name	Status	Critical Habitat	Effect Determination Summary
Mammals	West Indian Manatee	*Trichechus manatus*	Threatened	No	MANLAA[1]
	Eastern Black Rail	*Laterallus jamaicensis ssp. jamaicensis*	Threatened	No	NE[2]
Birds	Piping Plover	*Charadrius melodus*	Threatened	**Yes**	MANLAA
	Rufa Red Knot	*Calidris canutus rufa*	Threatened	**Yes (proposed)**	MANLAA
	Wood Stork	*Mycteria americana*	Threatened	No	NE
Reptiles	Eastern Indigo Snake	*Drymarchon couperi*	Threatened	No	NE
	Green Sea Turtle	*Chelonia mydas*	Threatened	No	MALAA[3]
	Hawksbill Sea Turtle	*Eretmochylys imbricata*	Endangered	No	NE
	Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	Endangered	No	NE
	Leatherback Sea Turtle	*Dermochelys coriacea*	Endangered	No	MANLAA
	Loggerhead Sea Turtle	*Caretta caretta*	Threatened	No	MALAA
Insects	Monarch Butterfly	*Danaus plexippus*	Proposed Threatened	No	NE
Plants	Pondberry	*Lindera melissifolia*	Endangered	No	NE

1. MANLAA = May Affect, Not Likely to Adversely Affect.
2. NE = No Effect.
3. MALAA = May Affect, Likely to Adversely Affect.

3.11.2 Alternative 1: No Action

Under the No Action Alternative, long-term, moderate negative effects to protected species would occur. Continued shoreline erosion and beach profile deflation may reduce the amount of habitat for sea turtles and shorebirds. Sufficient sand with the right characteristics (i.e. grain size and composition) and in the proper locations is crucial for sea turtles to nest, and for shorebirds to nest and feed. Under the No Action Alternative, the level of protection provided by the buffering beach and dunes from incident storms would be substantially reduced, potentially decreasing sea turtle and shorebird nesting success by increasing the likelihood of nest inundation during storms. Critical habitat for the piping plover and proposed critical habitat for the rufa red knot would also be reduced due to erosion. The No Action Alternative would have no effect on other listed endangered species within the project area.

3.11.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 will result in short-term, minor negative effects for manatees, piping plover, rufa red knot, and some species of sea turtles after each periodic and emergency beach renourishment event through 2036. However, implementation of Alternative 2 will have long-term moderate positive effects on piping plover critical habitat, proposed critical habitat for rufa red knots, and on sea turtle nesting habitat.

A Biological Assessment (BA) has been prepared to address effects to Federally protected threatened and endangered species and/or designated critical habitat under USFWS jurisdiction (see Appendix C). The BA contains a thorough review of potential effects to species listed in this section. Appendix C includes coordination with USFWS, the BA, and associated Best Management Practices (BMPs; see Section 2.2.6 of this EA for a summary as well) that are necessary to avoid or minimize effects on listed species.

Species Effects Determination:

The proposed beach renourishment and dredging operations will have no effect on wood storks because no suitable habitat for this species would be affected by beach renourishment activities.

The proposed beach renourishment and dredging operations will have no effect on eastern indigo snakes because no suitable habitat for this species would be affected by beach renourishment activities.

The proposed beach renourishment and dredging operations will have no effect on Eastern black rails because no suitable habitat for this species would be affected by beach renourishment activities.

The proposed action may affect but is not likely to adversely affect leatherback sea turtles because there is no recorded history, aside from one false crawl, on the beaches at Tybee Island (seaturtle.org). It is the District's belief that sea turtles would ultimately benefit from the project due to erosion control of the species' nesting areas.

The proposed beach renourishment and dredging operations will have no effect on Hawksbill sea turtles and Kemp's Ridley sea turtles because these species have no recorded history of nesting on the beaches at Tybee Island (seaturtle.org). Therefore, USACE has made a no effect determination.

The proposed beach renourishment and dredging operations will have no effect on monarch butterflies because no suitable habitat for this species would be affected by beach renourishment activities.

The proposed beach renourishment and dredging operations will have no effect on pondberry because habitat does not exist nor is historically present in or around the placement area.

The proposed beach renourishment and dredging operations may affect, not likely to adversely affect West Indian manatees (*Trichechus manatus)* because the species occurs in the general vicinity of the proposed project area. Any dredging contract issued would include Conservation Measures (USFWS 2021 Standard Manatee Conditions) as described in Section 4.2 of the BA (see Appendix C).

The proposed beach renourishment and dredging operations may affect, not likely to adversely affect piping plovers and their critical habitat because of the proximity to construction activities. Any construction contract issued would include BMPs as described in Appendix C. USACE has determined that the piping plover would ultimately benefit from the project due to erosion control of the bird's critical habitat area through 2036.

The proposed beach renourishment may affect, not likely to adversely affect rufa red knots and its proposed critical habitat because of the proximity to construction activities. Any construction contract issued would include BMPs as described in Appendix C. USACE has determined that the rufa red knots would ultimately benefit from the project due to erosion control of the bird's critical habitat area.

The proposed beach renourishment and dredging operations may affect, likely to adversely affect green and loggerhead sea turtles because of 1) yearly, recorded nesting on the beaches at Tybee Island (seaturtle.org) and 2) demonstrated, negative effects on nest success and survival on the year following beach nourishment (Ernest et

al. 2024; Brock et al. 2009). Any construction contract issued would include the GADNR Guidelines for Beach Nourishment Projects (revised 2016; GADNR 2016). USACE has determined that sea turtles would ultimately benefit from the project due to erosion control of the species' nesting areas. For more information regarding this effects determination, please see Appendix C.

As USACE would follow the Best Management Practices outlined in 2.2.6 of this EA (but see also Section 4.6 of the BA; Appendix C), no significant impacts are expected to ESA-listed species under USFWS jurisdiction. This determination is not meant to replace or substitute the effects analysis in the BA but rather serves as determination of the significance of effects to support decision-making under NEPA.

As the TISPP is a covered project in the 2020 SARBO and USACE will follow all terms and conditions all terms and conditions and all relevant project design criteria of the 2020 SARBO, for the purposes of NEPA, USACE has determined that no significant impacts to ESA-listed species under NMFS jurisdiction would occur as a result of the proposed action. This analysis is not meant to replace or substitute the effects analysis in the 2020 SARBO but rather serves as the analysis to support decision-making under NEPA.

3.12 Recreation

3.12.1 Existing Conditions

Common water related activities along the Tybee Island coastline include inshore fishing, offshore fishing, sailing, sailboarding, kayaking, body boarding, surfing, personnel watercraft, and other activities such as kite surfing. There are two piers located within the project area which provide recreational opportunity for fishing and crabbing: the Tybrisa Pier and Pavilion along the south end of beach and the Tybee Fishing Pier located on the backside of the island along Back River. A third fishing pier, the Lazaretto Creek Fishing Pier, is located on Lazaretto Creek just east of Tybee Island and offers fishing and crabbing from the pier.

3.12.2 Alternative 1: No Action

Under the No Action Alternative, long-term, moderate negative effects because of the continued erosion and reduction of available land-based recreational areas would occur. No offshore recreational effects are associated with the No Action Alternative.

3.12.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would create some short-term, minor negative effects after each beach renourishment event through 2036, but overall would result in long-term, positive effects to the recreational resources of Tybee Island due to beach availability.

Beach use would be temporarily restricted over short lengths of the beach during project construction for safety reasons but would resume after construction is completed within each segment. Recreational fishing could be temporarily impacted by turbidity near the offshore borrow site. Additionally, all public access to the active construction site from land and water would be restricted to ensure public safety. The construction contractor would be required to provide safety fencing and signage related to restricted access of the active construction site. Recreational surf fishing within the project area may be affected during the summer following beach renourishment activities due to short-term changes in the infaunal prey base for surf zone fishes such as kingfishes, Florida pompano and spot. Short-term effects to foraging habitat for surf zone fishes along the beach fill site are expected during the first warm season following completion of construction activities based upon the potential reductions in the prey base. No long-term adverse effects (greater than 1 year) to recreational fishing are expected.

The presence of dredging equipment would create a public safety risk for swimming in the nearshore in the immediate construction area. The construction contractor would be required to provide safety fencing and signage for the active construction site. Recreational boating may be detoured during construction and restricted from the dredging area. The construction contractor would be required to notify the U.S. Coast Guard (USCG) and request the USCG to provide notice to local mariners. These are temporary and short-term effects limited to the period of construction. No long-term effects are anticipated. Dry beach recreational benefits are the most common incidental benefit produced by a beach renourishment project. These benefits result from an increased capacity for recreational activity by the new beach surface. Overall, no significant short or long-term impacts to recreation are expected from the proposed action.

3.13 Water Quality

3.13.1 Existing Conditions

There are no known pollution sources other than storm water discharges and non-point source pollutants in the general vicinity of Tybee Island. Tybee Island waters are tested by GADNR Coastal Resources Division (GADNR-CRD) personnel for *Enterococcus* bacteria regularly across five beach locations. If bacteria levels exceed State criteria, then a beach advisory or closing is issued until levels fall below threshold values. *Enterococcus* bacteria are found in warm blooded animals including humans but also birds, raccoons, deer, dolphins and other wildlife. It is difficult to determine exactly where the bacteria originate, but some sources include animal waste, stormwater runoff, or boating waste.

Georgia’s water quality standards consist of two groups of criteria: general criteria that apply to all waters and specific criteria based on use. The general criteria include: waters shall be free of materials, oils, and scum, associated with municipal or domestic sewage, industrial waste or any other waste which will settle to form sludge deposits, produce turbidity, color, or odor, or that may otherwise interfere with legitimate water

uses; waters shall be free from toxic, corrosive, acidic, and caustic substances in amounts which are harmful to humans, animals, or aquatic life. General criteria also include acute (one time exposure) and chronic (long term exposure) concentrations of metals, as well as maximum allowable concentrations of pollutants such as pesticides and other chemicals.

Specific criteria include bacteria, dissolved oxygen, pH, nutrients, and temperature. Georgia Department of Natural Resources Environmental Protection Division (GANDR-EPD) is responsible for setting and enforcing water quality standards. The goals of establishing these standards are provided in GA's Rules and Regulations for Water Quality Control, Chapter 391-3-6-.03(2)(a).

The State of Georgia classifies all waters into categories which have different standards depending on the designated use of the water body. These uses include: (a) Drinking Water Supplies; (b) Recreation; (c) Fishing, Propagation of Fish, Shellfish, Game and Other Aquatic Life; (d) Wild River; (e) Scenic River; and (f) Coastal Fishing. Recreation designation is assigned if the water supports general recreational activities such as water skiing, boating or swimming. The littoral waters of Tybee Island are considered Recreational.

Turbidity, expressed in Nephelometric Turbidity Units (NTU), quantitatively measures the light scattering properties of the water. Turbidity levels at the project area are influenced by the Savannah River on the north, Back River on the south, and by waves and tidal action. However, the properties of the material suspended in the water column that create turbid conditions are not reflected when measuring turbidity. The two reported major sources of turbidity in coastal areas are very fine organic particulate matter, and sand-sized sediments that are re-suspended around the seabed by local waves and currents (Dompe and Haynes 1993). Higher turbidity levels are typically expected around inlet areas, and particularly in estuarine areas, due to high nutrient and entrained sediment levels. Although some colloidal materials remain suspended in the water column upon disturbance, high turbidity episodes usually return to background conditions within several days to several weeks, depending on the duration of the disturbance (i.e., storm event, dredging) and the amount of suspended fines.

Georgia Rule 391-3-6-.03(5)(d) states that all waters shall be free from turbidity which results in a substantial visual contrast in a water body due to a man-made activity. The upstream appearance of a body of water shall be as observed at a point immediately upstream of a turbidity-causing man-made activity. That upstream appearance shall be compared to a point which is located sufficiently downstream from the activity to provide an appropriate mixing zone. For land disturbing activities, proper design, installation, and maintenance of best management practices and compliance with issued permits shall constitute compliance with Paragraph 391-3-6-.03(5)(d).

3.13.2 Alternative 1: No Action

Under the No Action Alternative, no effects to water quality within or near Tybee Island would occur.

3.13.3 Alternative 2: Beach Renourishment

Implementation of Alternative 2 would have minor (insignificant), short-term, negative effects to water quality around Tybee Island after each periodic and emergency beach renourishment event through 2036. No long-term effects are anticipated. The beach fill activities are expected to exhibit some degree of construction-related turbidity greater than natural conditions. This turbidity is usually generated by the fines ratio of the pumped sediments suspended within the return effluent. A small turbidity plume is expected at the offshore borrow site and beach discharge point in association with construction activities. Temporary, shore-parallel dikes will be constructed in the immediate construction area as needed to control the effluent and maximize the settling of sediments from the discharge before the waters reach the Atlantic Ocean. Turbidity effects are expected to be short-term and limited to the period of construction given the low percentage of fine material within the borrow site sediments. Construction of every beach renourishment event would be expected to last approximately 65 days. No permanent degradation of water quality would occur. All work performed during construction will be done in a manner so as not to violate applicable water quality standards. USACE is coordinating with GADNR-EPD to obtain a Clean Water Act (CWA) Section 401 Water Quality Certification (WQC). A Section 404(b)(1) evaluation for the proposed project is found in Appendix A.

Section 4. Compliance with Environmental Laws and Executive Orders

This chapter provides documentation on how the proposed action complies with all applicable Federal environmental laws, statues, and executive orders.

4.1 Environmental Laws

Abandoned Shipwrecks Act of 1987, as amended (43 U.S.C. §§ 2101-2106)

There are no known shipwrecks that may be impacted by the proposed action. Two anomalies are present in the borrow area, which have not been fully investigated and could potentially represent shipwreck features. Avoidance buffers are in place to avoid any adverse effects. Any inadvertent discoveries would be handled according to all applicable cultural resources laws and regulations as they are discovered.

Anadromous Fish Conservation Act of 1965, as amended (16 U.S.C. § 757a *et. seq.*)

Any future planning for the use or development of water or land resources affecting anadromous fish will be coordinated with local, State and Federal resource agencies in accordance with NEPA regulations and submitted to Congress.

Archaeological and Historic Preservation Act of 1974, as amended (54 U.S.C §§ 312501-312508) and Archeological Resources Protection Act of 1979, as amended (16 U.S.C § 470 aa-mm)

Two historic properties (9CH1449 and 9CH1506) and two anomalies are located within the project's APE. As designed, the undertaking poses no adverse effect to these resources with the observance of avoidance buffers for the two anomalies.

Bald and Golden Eagle Protection Act, as amended (16 U.S.C. §§ 668-668d)

No bald or golden eagle nests are within vicinity of the project area; therefore, the project is in compliance.

Clean Air Act, as amended (42 U.S.C. § 7401 et. seq.)

The "general conformity" requirements of Section 176(c)(4) of the Clean Air Act, are met as only short-term negligible effects are anticipated. The area is in attainment and the proposed action would not affect the attainment status.

Clean Water Act, as amended (33 U.S.C. § 1251 et. seq.)

CWA Section 401 water quality certification (WQC) for the TISPP was last issued in 2019 for a one-time placement. GADNR-EPD determined that a new 401 CWA WQC would be required under this Federal authorization period ending in 2036. USACE submitted a 401 WQC request to GADNR-EPD on December 15, 2025, and will include it in the Final EA and FONSI, as appropriate. USACE will coordinate the neighboring jurisdiction determination with the EPA. GADNR- EPD issued a 30-day public notice for the 401 WQC, which expires on January 20, 2026. The public notice and USACE's 401 WQC application correspondence can be found in Appendix A. Any public comments that may be received in response to GADNR-EPD's public notice will be included in Appendix A.

While USACE does not process and issue permits for its own activities, pursuant to 33 C.F.R. § 336.1, USACE applies all applicable substantive legal requirements to its discharge of dredged or fill material, including application of the Section 404(b)(1) guidelines. As part of the review, USACE evaluated the probable effects, including reasonably foreseeable effects, of the placement of dredged material, which is the relevant activity resulting in discharge, and the intended use on the public interest. For reasons identified in the 404(b)(1) analysis found in Appendix A, USACE concludes that the proposed activity is in the public interest, and the proposed action is the least environmentally damaging practicable alternative (LEDPA).

Coastal Barrier Resources Act of 1982, as amended (16 U.S.C. § 3501 *et seq.*)

The U.S. Congress passed the Coastal Barrier Resources Act (CBRA; 16 U.S.C. 3501 *et seq.*) in 1982 to address problems caused by coastal barrier development. This Act defined a list of undeveloped coastal barriers along the Atlantic and Gulf coasts and was passed to limit Federally subsidized development within a defined Coastal Barrier Resources System. The CBRA System, Little Tybee Island Unit N01, is located immediately south of the offshore borrow site at the south end of Tybee Island (https://www.fws.gov/cbra/maps/effective/13-001A.pdf). A RIF/DIF model was performed to assess the impact of deepening the borrow site on wave refraction and shoreline erosion for the South Tip Beach/Tybee Creek project. The model determined that any wave refraction that would occur would be limited to the outer shoals in the area and would not impact the south end of Tybee Island and the north end of Little Tybee Island (USACE 1997).

Due to the placement area being classified as GA-06P (Otherwise Protected Area) under the Coastal Barrier Resources Act (CBRA), consultation is not required.

Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1451 *et seq.*)

In accordance with the Coastal Zone Management Act of 1972 (CZMA), USACE prepared a CZMA Federal consistency determination to evaluate whether the proposed action for the TISPP is consistent with the Georgia Coastal Management Program (GCMP; see Appendix B). For purposes of the CZMA, the enforceable policies of the GCMP constitute the approved state program. In accordance with the CZMA, USACE has determined that the proposed action would be carried out in a manner which is fully consistent with the enforceable policies of the GCMP. USACE submitted the CZMA consistency determination to the GADNR-CRD on January 2, 2026 (Appendix B). USACE requested a consistency determination from the GADNR-CRD for the TISPP through the Federal authorization period ending in 2036. The consultation with GADNR-CRD is ongoing and USACE will include it in the Final EA and FONSI, as appropriate.

Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*)

Pursuant to Section 7 of the ESA, USACE has made a “may affect, but not likely to adversely affect” determination for the West Indian manatee, piping plover, rufa red knot, and leatherback sea turtle. A “may affect, likely to adversely affect” determination was made for the green and loggerhead sea turtle. A no effect determination was made for all other USFWS-regulated ESA-listed species with the potential to occur in the action area (Section 3.11). There is designated critical habitat for the piping plover and proposed critical habitat for the rufa red knot within the project area. USACE has prepared a Biological Assessment (BA) detailing USACE’s effects findings (Appendix C). USACE is in ongoing consultation with USFWS regarding the effects determinations. USACE will include all correspondence and determinations in the Final EA and FONSI. The USFWS correspondence and BA are in Appendix C.

Pursuant to Section 7 of the ESA, as amended, the National Marine Fisheries Service (NMFS), issued the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement in the Southeast United States (SARBO) on March 27, 2020, revised July 30, 2020. The TISPP is a covered project in the 2020 SARBO. The USACE will follow all terms and conditions and all relevant project design criteria of the 2020 SARBO. The 2020 SARBO covers the following federally listed species under NMFS jurisdiction that may be in the project area: North Atlantic Right whale, Sei whale, Blue whale, Sperm whale, Fin whale, Kemp's Ridley sea turtle, Hawksbill sea turtle, Loggerhead sea turtle, Leatherback sea turtle, Green sea turtle, Oceanic Whitetip shark, Giant manta ray, Atlantic sturgeon, and Shortnose sturgeon.

Estuary Protection Act of 1968 (16 U.S.C. § 1221 *et seq.*)

The protection and conservation of estuaries were considered in this EA. Any future planning for the use or development of water or land resources affecting estuaries will be coordinated with local, State and Federal resource agencies.

Fish and Wildlife Coordination Act, as amended (16 U.S.C. §§ 661-666e)

USACE has requested comment under the FWCA, any comments from USFWS relevant to the FWCA will be included in the Final EA and FONSI, as appropriate.

Flood Control Act of 1944, Section 4, as amended (16 U.S.C. § 460d)

Not applicable since congressional authorization already exists (refer to Section 1.3 of this EA) for this project.

Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 *et seq.*)

USACE determined that the proposed action would have minor or negligible adverse effects to essential fish habitat. USACE is consulting with the NMFS-HCD and provided the draft EA and essential fish habitat (EFH) assessment (Appendix D). The consultation is ongoing. USACE will include all correspondence and determinations in the Final EA and FONSI.

Marine Mammal Protection Act of 1972, as amended (16 U.S.C. § 1361 *et seq.*)

Contract specifications for beach renourishment activities will include marine mammal protective measures required by the ESA Section 7 consultation with USFWS. The proposed action would not result in take of marine mammals.

Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. § 1401 *et seq.*)

This act is not applicable as ocean disposal of dredged material is not included in the proposed action.

Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712)

This Act makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. USACE does not anticipate that migratory birds would be adversely (directly or indirectly) affected by the proposed action. The TISPP will nourish lost shoreline and will provide additional migratory bird foraging habitat, providing benefits to migratory species. For this reason, USACE has determined the proposed action is compliant with this Act.

National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321 *et seq.*)

Compliance with NEPA is accomplished through the preparation of this EA and FONSI, if appropriate. This EA has been prepared in accordance with DoD NEPA Implementing Procedures issued 30 June 2025

National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 *et seq.*)

Pursuant to Section 106 of the NHPA, consultation was conducted in 2018 and 2019 resulted in concurrence with a no effect to historic properties determination. Avoidance buffers for two anomalies were established in the borrow area. Consultation was resumed in a letter dated July 29, 2025. GA SHPO responded in a letter dated September 3, 2025, stating that the undertaking poses no adverse effect to historic properties eligible for or listed in the NRHP and citing nearby NRHP eligible properties 9CH1449 and 9CH1506 (HP-180906-002). Tribal consultation also occurred and is detailed below. Any inadvertent discoveries would be handled according to all applicable cultural resources laws and regulations as they are discovered.

Native American Graves and Repatriation Act (25 U.S.C. § 3001 *et seq.*)

Tribal consultation occurred in 2018 and 2019, and no concerns were expressed at that time. Ten tribes were consulted regarding this undertaking in a letter dated July 29, 2025. One tribal response was received from the Shawnee Tribe on August 25, 2025, stating that they have no concerns. Any inadvertent discoveries of human remains and/or associated funerary objects will be coordinated with tribes.

Flood Control Act of 1970, Section 209 (Public Law 91-611) and Section 216, as amended (33 U.S.C. § 549a)

Since Congressional authorization for the TISPP, benefits related to the current project were already analyzed and previously approved.

Sunken Military Craft Act of 2004 (10 U.S.C. §§ 113 *et seq.*)

There are no known sunken military craft that may be impacted by the proposed action. Any inadvertent discoveries would be handled according to all applicable cultural resources laws and regulations as they are discovered.

4.2 Executive Orders

Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971.

No cultural resources will be adversely impacted by the proposed action. Any inadvertent discoveries would be handled according to all applicable cultural resources laws and regulations as they are discovered.

Executive Order 11988, Floodplain Management, May 24, 1977, amended by Executive Order 12148, July 20, 1979.

Executive Order (EO) 11988, implemented through Engineer Regulation 1165-2-26, requires Federal agencies to avoid siting actions in the floodplain and evaluate the potential effects of actions it may take in the floodplain. The purpose of the Order is to avoid, to the extent possible, the long and short-term adverse effects associated with the occupancy and modification of flood plains and to avoid direct and indirect support of flood plain development wherever there is a practicable alternative.

USACE determined that the proposed action is in the base floodplain as defined by E.O. 11988. Alternatives are described in Section 2. The proposed action, described in detail in Section 2.2, best meets the purpose and need. There were no other practicable alternatives identified that would meet the project purpose or need. A description of the No Action Alternative is contained in Section 2.1. The impacts of the proposed action are contained in Section 3. The project does not encourage growth in a floodplain. The project will restore and preserve the natural and beneficial values of the floodplain. Public and agency coordination is described in Section 5. This EA will be coordinated with interested stakeholders and the public via the NEPA process. Construction will occur after all appropriate documentation (e.g., agreements, permitting, etc.) is completed and funds are received.

USACE concludes that the proposed action would not result in harm to people, property, or floodplain values and would not induce development in the floodplain. For

the reasons stated above, the project complies with E.O. 11988 and implementing regulations.

Executive Order 11990, Protection of Wetlands, May 24, 1977.

USACE does not anticipate effects to wetlands from the proposed action. There will be no net loss of wetlands. Therefore, this action is consistent with this EO.

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, April 21, 1997.

The project would not create a disproportionate environmental health or safety risk for children.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, November 6, 2000.

Federal or Tribal lands are not involved. There are no known Indian Sacred Sites that may be impacted by the proposed action. Tribes will be kept apprised of project updates, and any inadvertent discoveries will be coordinated with them.

Executive Order 13751 Safeguarding the Nation from the Impacts of Invasive Species, December 6, 2016.

The project would not introduce, establish, or spread invasive species to the project area and is therefore compliant with the EO.

Executive Order 13186, Protection of Migratory Birds, January 10, 2001.

Migratory Bird Treaty Act and Migratory Bird Conservation Act Measures will be taken to protect migratory birds. Compliance with these acts demonstrates compliance with the EO.

Section 5. Public Involvement and Coordination

This section summarizes public outreach that has occurred for this project. Coordination for the environmental laws are included the respective appendices. For records regarding coordination on this project, please see Appendix G.

5.1 Summary of Public Outreach

This section will be completed upon resolution of the public comment period, which will take place beginning in January 2026.

The draft EA was issued for public comment for a period of 15 days, beginning on January 9, 2026. A copy of comments received and responses to comments will be in

Appendix G of the Final EA and FONSI, if appropriate. Public comments received will help inform USACE's decision regarding the significance of impacts from the proposed action and determination if a FONSI is appropriate.

5.2 Agencies and Persons Consulted

5.2.1 Federal Agencies

USACE continues to coordinate with USFWS, NMFS-HCD, and EPA on the proposed project. Coordination began early in the project development and will continue through project completion. Please see Section 4.1 for a description of coordination relevant to each environmental law.

5.2.2 Tribal Consultation

Tribal consultation under Section 106 was initiated for Phase I on September 12, 2018, and Phase II consultation was initiated on May 31, 2019. Two tribal responses were received. The Catawba Indian Nation expressed no immediate concerns regarding traditional cultural properties, sacred sites, or Native American archaeological sites within the boundaries of the proposed project areas and requested to be notified if Native American artifacts and/or human remains are located during the ground disturbance phase of this project. The Thlopthlocco Tribal Town requested to be notified of any inadvertent discoveries.

As part of the recent Sec 106 consultation, USACE consulted with ten Federally recognized Tribes (Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Eastern Shawnee Tribe of Oklahoma, Kialegee Tribal Town, The Muscogee (Creek) Nation, Poarch Band of Creek Indians, The Seminole Nation of Oklahoma, Seminole Tribe of Florida, Shawnee Tribe, Thlopthlocco Tribal Town) in a letter dated July 29, 2025. One tribal response was received from the Shawnee Tribe on August 25, 2025, stating that they have no concerns. For more information on the Section 106 consultation, refer to Appendix E.

5.2.3 State Agencies

The Savannah District has consulted or coordinated with the GADNR-CRD, GADNR-EPD, and GADNR Wildlife Resources Division (GADNR-WRD) on the shoreline beach renourishment site in December 2025 and January 2026. For Section 106, the GA SHPO was consulted. No historic properties or other resources cultural significance will be impacted. Section 106 consultation is now complete for this proposed action.

Please see Section 4.1 for a description of coordination relevant to each environmental law.

5.2.4 Local Agencies

USACE coordinated with the City of Tybee Island (the NFS) regarding public outreach and the public comment period. A list of stakeholder engagement can be found in Section 5.2.5 below.

5.2.5 Stakeholder Engagement

USACE engaged with Federal, State, and Local agencies to aid in the evaluation of the proposed action. Stakeholder meetings have been held with NMFS, USFWS, GADNR-EPD, GADNR-CRD, and GADNR-WRD. The following provides a summary of these meetings or email correspondence:

- August 14, 2025 – Stakeholder/Agency Meeting
    - Introduction and description of proposed action
    - CWA 401 Pre-Filing Meeting
    - Discussion of design considerations and constraints
- December 9, 2025 – Email to Stakeholders/Agencies with updated timeline
- December 11, 2025 - Draft Public Notice shared at City of Tybee Island City Council Meeting

Section 6. List of Preparers

Name	Affiliate	Discipline/Role
Laura Dudley	USACE Geotechnical	Geotechnical Engineer/Co-Author
Andrea Farmer	USACE Planning	Archaeologist and Tribal Liaison/Co-Author
Madison Monroe	USACE Planning	Biologist/Co-Author
Dr. Kaitlyn Murphy-Wefel	USACE Planning	Biologist/Lead Author
Emily Wortman	USACE Hydrology and Hydraulics	Engineer/Lead Engineer
Summer Wright	USACE Planning	Planner/Co-Author

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