US Army Corps of Engineers®

ENVIRONMENTAL ASSESSMENT

FOLLY BEACH SHORE PROTECTION PROJECT:

FOLLY RIVER BORROW AREA

CHARLESTON COUNTY, SOUTH CAROLINA

December2017

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Environmental Assessment

Folly Beach Shore Protection Project: Folly River Borrow Area

1. Purpose and Need for this Document

Pursuant to the National Environmental Policy Act (NEPA) of 1969, this Environmental Assessment (EA) represents the position of the US Army Corps of Engineers, Charleston District (USACE) regarding the environmental impacts for the extraction and transportation of material from the Folly River, South Carolina for emergency rehabilitation of Folly Beach, as part of the existing Folly Beach Shore Protection Project (Project). The proposed emergency rehabilitation is needed to repair damages from Hurricane Matthew and Hurricane Irma.

The Project was authorized by Section 501 of the Water Resources Development Act of 1986, Public Law 99-662, as amended, and modified by the Energy and Water Development Appropriations Act of 1992, Public Law 102-104. The purpose of the Project is to reduce damage to structures and shorefront property related to erosion and storms. Initial project construction was completed in 1993, and involved the placement of approximately 2.7 million cubic yards (cy) of sand on Folly Beach. The shoreline was nourished again in 2005 with approximately 2.3 million cy of sand. A partial renourishment occurred in 2007 with approximately 490,000 cy of sand. Folly Beach was nourished once again in 2014 with approximately 1.4 million cy of sand from an offshore borrow area. The borrow area was located in both state and federal waters and, as such, a lease from Bureau of Ocean Energy Management (BOEM) was obtained for the portion of the borrow area located in federal waters. For the proposed emergency partial renourishment, the USACE, with the City of Folly Beach (the Project's non-federal cost share sponsor), would place approximately 750,000 cy of sand on the beach from a different borrow area, the Folly River. The Folly River borrow area was used during the initial construction of the Project in 1993. As part of a separate action, the City of Folly Beach plans to restore several groins in the Project area, and these two separate projects may overlap during construction.

The USACE described the affected environment and evaluated environmental effects for the Project in numerous previous NEPA documents, and the findings from the previous NEPA documents are generally still relevant as they relate to the placement of material on Folly Beach. Therefore, the findings from previous NEPA documents are not reproduced in this EA; however, specific details for the Project are provided in the following reports that are hereby incorporated by reference in accordance with 33 CFR 230.26(b) and 40 CFR 1502.21:

- Environmental Impact Statement (EIS) for Beach Erosion Control and Hurricane Protection for Folly Beach, S.C. USACE, Charleston District, July 11, 1980.
- Final Detailed Project Report, Charleston Harbor, Folly Beach, South Carolina; U.S. Army Corps of Engineers, Charleston District, South Carolina, August 1987.

- Folly Beach, South Carolina, Special PED Report to Reevaluate Federal Justification for Storm Damage Reduction; U.S. Army Corps of Engineers, Charleston District, South Carolina, August 1988.
- Folly Beach Shore Protection Project: Final Environmental Assessment; US Army Corps of Engineers, April 1991. (Appendix 1)
- Folly Beach Shore Protection Project: Final Environmental Assessment; US Army Corps of Engineers, January 2005 EA. (Appendix 2)
- Folly Beach Shore Protection Project: Final Environmental Assessment; US Army Corps of Engineers and Bureau of Ocean Energy Management, November 2013 EA. (Appendix 3)
- Folly Beach Shore Protection Project: Finding of No Significant Impact (FONSI) November 2013. (Appendix 4)

This EA supplements the existing environmental analyses by addressing the borrow area in the Folly River. It documents the environmental impacts of dredging and transporting fill material from a designated area in the Folly River to Folly Beach as part of the emergency rehabilitation of the Project that resulted from impacts to life, property, and habitat from Hurricane Matthew and Hurricane Irma. The USACE has integrated the process of NEPA compliance with other environmental requirements, including the Coastal Zone Management Act (CZMA), Endangered Species Act (ESA), Magnuson-Stevens Fishery Management and Conservation Act (FCMA), and National Historic Preservation Act (NHPA). The intent of this EA is to determine whether the proposed resumption of use of the Folly River borrow area for purposes of this emergency rehabilitation of the Project involves a substantial change to the Project that is relevant to environmental concerns, or whether there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts, either of which would warrant preparation of a supplemental EIS (33 CFR 230.13(b) and 40 CFR 1502.9(c)).

2. Renourishment Trigger and Project Authorization

The proposed action for the Project is part of the emergency rehabilitation pursuant to the Food Control and Coastal Emergency Act (P.L. 84-99), 33 USC 701n, as a result of a number of significant storm events.

In late September 2016, Hurricane Matthew developed in the Caribbean, intensifying to hurricane Category 5 status on October 1, 2016, when it began tracking towards the north. It weakened to Category 2 status on October 8, 2016 while located offshore of the Florida/Georgia border. It paralleled the Georgia and South Carolina coast, making landfall as a Category 1 storm near McClellanville, SC. Hurricane Matthew reemerged offshore just south of Myrtle Beach, SC as a Category 1 storm and tracked northeast, paralleling the North Carolina coast while transitioning to extra-tropical status.

Rehabilitation from Hurricane Matthew impacts was approved under PL 84-99 in April 2017. In some areas, specifically from 8th St. East to the northern end of the project limits, the 8 ft. berm was completely eroded due to the storm events. Prior to initiation of the approved post-Hurricane Matthew rehabilitation, the Folly Beach project was impacted again, this time by

Hurricane Irma during mid-September 2017. Hurricane Irma made landfall along the Southwest Florida coast as a major, Category 3 hurricane on September 10, 2017, and traveled northward impacting shorelines along the south Atlantic coast from Florida through the Carolinas. Significant beach erosion and scarping of the primary berm occurred along the majority of the project shoreline. Hurricane Irma resulted in loss of dune and berm sand along the oceanfront of Folly Beach.

As a result of these extraordinary storms, Folly Beach suffered significant erosion of the beach and dune system. The Project is currently below its authorized level of protection. Absent rehabilitation, public and private infrastructure is vulnerable to damage and the life and safety of residents and visitors is at risk.

The proposed emergency rehabilitation will place approximately 750,000 cy of sand on the north end of Folly Beach to restore it to pre-storm conditions, and completely fill the authorized construction template. Source material will come from a borrow area in the nearby Folly River, which lies within the Bird Key Unit (M-07) of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act [16 U.S.C. 3501 et seq.] The Folly River was used as the borrow area for initial construction of the Project; NEPA analysis and environmental clearances were completed at that time. With regard to its use specifically for this emergency rehabilitation of Folly Beach, USACE evaluated the potential borrow area, and believes that the proposed sand use for this emergency rehabilitation from within the Bird Key Unit of the CBRS is consistent with the purposes of the CBRA. Following Hurricane Matthew, the USACE consulted with and officially requested concurrence from the US Fish and Wildlife Service (USFWS), as the federal agency responsible for administering CBRA, on April 28, 2017. In a letter dated July 28, 2017, the USFWS concurred that the proposed project is allowable under the CBRA. Copies of these letters are included in Appendix 5 for reference.

3. Description of Proposed Action in the Folly River

The rehabilitation of the Project pursuant to Public Law 84-99 will repair the northeast end of the beach to the pre-storm condition. This includes placement of 306,428 cy of material for the beach fill lost due to Hurricane Matthew and 445,441 cy of material resulting from damage during Hurricane Irma in 2017, from a designated borrow area in the Folly River. Approximately 13,000 linear feet of shoreline will be renourished, extending from 8th Street East to the last groin past the last structure on the east end of the island (see Figure 1).

Figure 1. Location of Proposed Folly Beach Shore Protection Project Area

The Folly River is not a new borrow area; it was used as a source for initial Project construction in 1993. During formulation of the initial Project, the Follow River site was determined to be the most suitable and least costly source of nourishment, while having limited environmental impacts. The designated borrow area in the Folly River for the emergency rehabilitation is located near the southern end of Folly Beach in the Bird Key Unit of the CBRS (see Figure 2). Recent vibracore sampling and lab testing confirm that beach quality material for Folly Beach is present.

The river channel and portions of the channel shoulder will be dredged by means of a hydraulic cutter head dredge that will transport the sand through a pipeline. To minimize impacts to the beach and the environment, the City of Folly Beach requested the pipeline extend through the Folly River. It will run from the borrow area in the Folly River through the channel to an area across from the Washout. Several nearby private property owners are willing to grant easements to the City of Folly Beach to run the pipeline from the channel through their property to the beach. The South Carolina Department of Transportation will allow the USACE's contractor to cut the road and place the pipeline and small bridge so that it will limit impacts to the public. The material from the pipeline will be pumped along the beach.

Figure 2. Location of Proposed Borrow Area in the Folly River, SC

The Project also includes an option to add an additional estimated 250,000 cy of material from the Folly River navigation channel to the beach, and to add up to 40,000 cy of sand to nearby Bird Key Stono Seabird Sanctuary (the Sanctuary) to benefit piping plovers and other resident birds, provided and to the extent that an appropriate location and specifications are identified. Any material placed on the Sanctuary will be completed prior to mid-March 2018 at the request of the USFWS and at an appropriate location (see more in Section 5 below).

Due to the emergency nature of this renourishment and the associated funding constraints, the anticipated project schedule is expected to occur from January to September 2018. However, this schedule could change due to contractual issues, inclement weather, equipment failure, or other unforeseen difficulties.

4. Alternatives Analysis

The original 1987 Final Detailed Project Report evaluated a total of six nonstructural and six structural alternatives, and a no action alternative. Based upon a combination of economic, engineering, and environmental factors, the USACE selected beach nourishment as the alternative that would best meet the needs for the Project over the authorized life of the Project. Following Hurricanes Matthew and Irma, alternatives of no action; rehabilitation to pre-storm condition using off-shore sources; and the selected Project action to rehabilitate to pre-storm condition using material from the Folly River were considered.

4.1 No Action

Due to the severe erosion that has resulted from storms described in Section 2 above, and because of the Federal Government's commitment to renourish the beach when necessary over the authorized life of the project, the No Action alternative does not meet the purpose and need for the Project. The No Action alternative will leave lives, property, and significant infrastructure and habitat vulnerable and at risk.

4.2 Use of Sand from the Outer Continental Shelf (OCS)

This alternative was eliminated because it is too costly, and the quantity of quality sand is low. In April 2017, the USACE prepared a Limited Re-evaluation Report (LRR) for the Folly Beach Shore Protection Project to investigate potential borrow areas for beach quality material for the remainder of the authorized project life, which currently ends in year 2042 (Appendix 6). The study found that the projected cost difference between using OCS borrow areas would be approximately $25 million per renourishment project more than using areas within the Bird Key Unit of the CBRS. The study also found there is less beach-quality sand remaining available offshore compared with beach-quality sand readily available within the CBRS unit.

4.3 Use of Sand from the Folly River

Use of Sand from the Folly River is the proposed action. The sand use from the Folly River within the Bird Key Unit of the CBRS is consistent with the purposes of the CBRA, and will not encourage the development of the Unit. The sand placement site (Folly Beach) is adjacent to the Bird Key Unit of the CBRS and there is a littoral sand transport link between the two sites as demonstrated by the fact that the sand placed on Folly Beach in previous beach renourishment projects has moved into the Bird Key Unit. The 2017 LRR was able to identify potential borrow areas within the Bird Key Unit of the CBRS with quantities of beach compatible sand for the proposed Project. The City of Folly Beach has also independently assessed the availability of sufficient sand within the Bird Key Unit. The presence of threatened and endangered species in the Folly River is rare. Therefore, the proposed action is the most environmentally acceptable alternative, and also the most cost-efficient use of Federal dollars.

5. Environmental Consequences

Background: Pursuant to NEPA, the proposed action is being evaluated to document the potential environmental impacts that may result from using the Folly River for this emergency rehabilitation with respect to water quality, benthic resources, essential fish habitat, threatened and endangered species, cultural resources and coastal zone management consistency. As described in Section 1, this EA supplements previous NEPA documentation for the Project, including the original EIS and related documents, and EAs prepared in 1991, 2005, and 2013, which have been incorporated by reference. Previous NEPA documents have evaluated impacts to other resources, including aesthetics, recreation and tourism, air quality, noise, and cumulative impacts. The USACE also prepared a Biological Assessment (BA), and the USFWS issued a Biological Opinion, for the 2014 Folly Beach Shore Protection Project. Since the Folly River borrow area was not considered in the last EA, an amendment to the BA has been prepared by

the USACE and submitted to the USFWS (now included as Appendix 10).

Coastal Barrier Resources System (CBRS): As described in Section 2 of this EA, the Folly River borrow area for the proposed Project lies within the Bird Key Unit of the CBRS. By letter dated July 28, 2017, the USFWS determined that the proposed Folly Beach emergency rehabilitation "is an allowable use under the CBRA" (see Appendix 5). The USFWS letter also notes that the proposed project would benefit federally listed loggerhead sea turtles, red knot, and piping plovers.

As part of their determination, the USFWS recommended that the USACE consult with USFWS and the South Carolina Department of Natural Resources (SCDNR) before sand from the Bird Key Unit is placed on the Bird Key Stono Seabird Sanctuary. Although the July 28, 2017 letter from USFWS takes the position that the proposed Pproject would benefit resident birds of the Sanctuary and recommends periodic placement of sand, USFWS recommended that the USACE not hardpan the north side of the Sanctuary shoreline, as this would affect food sources such as horseshoe crabs, for the birds. The USACE is currently in contact with the USFWS and SCDNR to confirm the location for placement of material on Bird Key Stono Seabird Sanctuary so that it would minimize impacts and be most beneficial to birds.

Water Quality: Temporary degradation of water quality will occur at the dredging location, and during initial placement and removal of the pipeline. Increases in suspended sediment is typically restricted to the location, and does not persist once construction ceases. The Folly River is classified as Shellfish Harvestable Waters by the South Carolina Department of Health and Environmental Control (SCDHEC), which SCDHEC regulates to protect the health of consumers of shellfish.

In 1993, SCDHEC issued a Section 401 water quality certification for the Project, and SCDHEC re-validated the certification in 2005. Since that time, SCDHEC has issued a notice on Section 401 water quality certifications that stated that groin construction and beach nourishment have very few water quality impacts, and, in turn, SCDHEC has waived the requirement for Section 401 certifications for these projects (Appendix 7). Therefore, no new Section 401 water quality certification will be required for this emergency rehabilitation.

Section 404 of the Clean Water Act governs the discharge of dredged or fill material into waters of the U.S. Although the USACE does not process and issue permits for its own activities, the USACE authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including public notice, opportunity for public hearing, NEPA, and application of the Section 404(b)(1) guidelines. A Section 404(b)(1) evaluation was completed for this project in 2005. The findings of that evaluation are still considered to be valid.

Benthic Resources: Beach renourishment projects take place in highly dynamic and harsh environments for organisms that inhabit them. Studies on recovery of infaunal communities at dredging sites show that recovery rates are variable, but the abundance and diversity of benthic fauna within the borrow areas frequently return to pre-nourishment levels relatively quickly, often within 1-2 year post-dredging recovery periods (Bowen and Marsh 1988; Jutte and Van Dolah 2000; Jutte et al. 2002; Naqvi and Pullen 1982).

Essential Fish Habitat: An Essential Fish Habitat (EFH) assessment was completed for the Project in 2013, as required by the Magnuson-Stevens Fishery Conservation and Management Act of 1976, and reauthorized in 2006. The objectives of the EFH assessment were to describe how the Project potentially influenced the quality of habitat designated by the NOAA National Marine Fisheries Service (NMFS) and the South Atlantic Fisheries Management Council. For the Folly River borrow area, designated EFH includes coastal unconsolidated sand/mud bottom and sargassum. There is no known hardbottom habitat (also known as "live bottom" because it supports a rich diversity of invertebrates which are refuges and food sources for fish and other marine life) in the Folly River. There is also no submerged aquatic vegetation (SAV) to impact, which has been an issue during sand transport in other beach renourishment projects. Marine and estuarine species and their associated EFH known to be present in the Folly River include coastal migratory pelagics, such as mackerals; snapper grouper complex fishes; two species of spiny lobster; summer flounder; bluefish; Atlantic butterfish; and multiple species of sharks. The project area also provides EFH for penaeid shrimp, wahoo, and golden crab.

Blue crabs, Eastern oyster, and other invertebrates can be found along the salt marsh edge and mudflats of the Folly River. Dredging will occur in the channel and along the shoulder below the MLLW line and not directly interfere with salt marshes or oyster reefs. The pipeline will also align the channel where possible, and floating pipelines will be used to limit impacts when crossing the marsh. This approach was successfully implemented during renourishment of the Folly Beach County Park.

No significant, long-term harm to any designated EFH is expected, and the proposed action will benefit many species longer term. Since no hard bottom or SAV habitat are found within the Folly River, no buffers or special considerations need to be given to species that use these habitats. Interaction with adjacent salt marsh and oyster habitat will be avoided to the extent possible. Ideally, construction activities would be confined to seasons of limited biological activity. Currently, the implementation of the proposed Project is planned to occur from approximately January to September 2018 due to the emergency need to repair the beach to its storm protection level for life and property. The USACE is in discussion with NOAA NMFS regarding the need for and scope of appropriate monitoring to assess any EFH-specific impacts from this emergency rehabilitation during a time of higher biological productivity.

Endangered Species: The presence of threatened and endangered species and their critical habitat have been considered for potential impacts of the proposed action within the Folly River. Federally listed threatened and endangered species either occurring, or possibly occurring, in Charleston County are found in Table 1.

Table 1: FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES IN CHARLESTON COUNTY

COMMON NAME	SCIENTIFIC NAME	STATUS
Frosted flatwoods salamander	*Ambystoma cingulatum*	T, CH
Bachman's warbler	*Vermivora bachmanii*	E
Piping plover	*Charadrius melodus*	T, CH
Red-cockaded woodpecker	*Picoides borealis*	E
Wood stork	*Mycteria americana*	.T
Red knot	*Calidris canutus rufa*	T
Atlantic Sturgeon*	*Acipenser oxyrinchus*	E, CH
Shortnose sturgeon*	*Acipenser brevirostrum*	E
Finback whale*	*Balaenoptera physalus*	E
Humpback whale*	*Megaptera novaengliae*	E
North Atlantic right whale*	*Balaena glacialis**	E, CH
Blue whale*	*Balaenoptera musculus*	E
Sei whale*	*Balaenoptera borealis*	E
Sperm whale*	*Physeter macrocephalus*	E
West Indian manatee	*Trichechus manatus*	E
American chaffseed	*Schwalbea americana*	E
Canby's dropwort	*Oxypolis canbyi*	E
Pondberry	*Lindera melissifolia*	E
Seabeach amaranth	*Amaranthus pumilus*	T
Green sea turtle*	*Chelonia mydas*	T
Hawksbill sea turtle*	*Eretmochelys imbricata*	E
Kemp's ridley sea turtle*	*Lepidochelys kempii*	E
Leatherback sea turtle*	*Dermochelys coriacea*	E
Loggerhead sea turtle*	*Caretta caretta*	T, CH

NOTES:
E - Federally Endangered T - Federally Threatened CH - Critical Habitat PCH – Proposed Critical Habitat
* These species are either under the jurisdiction of National Marine Fisheries Service (NMFS) or their jurisdiction is shared by NMFS and US Fish and Wildlife Service. All other species are solely under the jurisdiction of US Fish and Wildlife Service.

The proposed action will not affect any listed species occurring in forested or freshwater habitats. Thus, the red-cockaded woodpecker, Bachman's warbler, forested flatwoods salamander, Canby's dropwort, Pondberry, American chaffseed, and bog asphodel will not be affected by the proposed action. The southern terminus of seabeach amaranth range is Folly Island; however, there are currently no known populations that occur on the island. The listed whale species (blue, finback, humpback, right, sei, and sperm whales) would not be found in the estuarine waters of the Folly River. The species from Table 1 that could be present in the Folly River during the proposed action, but unlikely, include: the wood stork; the hawksbill, Kemp's ridley, leatherback, loggerhead, and green sea turtle; the West Indian manatee; and the shortnose and Atlantic sturgeon.

The USACE's assessment of effects on threatened and endangered species under Section 7 of Endangered Species Act in the Folly River includes the operation of the dredge; however, since the work will be performed by a hydraulic cutterhead dredge, the impacts to these species will be minimal. Effects on sturgeon could include entrainment in the dredge, interaction with the sediment plume, reduction in available forage, and disturbance due to vessel-created sounds. However, given the limited number of sturgeon expected to use the site as habitat (the Folly River is not identified as Atlantic sturgeon critical habitat by NMFS), and the use of a hydraulic cutterhead suction dredge, the potential for interaction is limited. Likewise, it's unlikely for sea turtles to be present in the Folly River, and the use of the cutterhead dredge limit potential for interaction. The Folly River is also not suitable habitat for nesting sea turtles. It would be rare to find the West Indian manatee, which inhabits Florida, in the area but they do pass through South Carolina when moving up the coast and have been observed in various locations. Wood storks could be in the vicinity of the Folly River, but the habitat conditions overall of the Folly River are likely not suitable for wood storks.

The endangered piping plover and threatened red knot can be found nesting nearby at the Bird Key Stono Seabird Sanctuary, which is in the CBRS near the mouth of the Folly River (see Figure 2). The Bird Key Stono Seabird Sanctuary is a designated State Heritage Preserve by the SCDNR to protect nesting seabirds. It is an isolated sandspit island that encompasses approximately 35 acres, but varies is size from year to year due to erosion and deposition from nearby rivers, including the Folly River. The USACE's 2017 LRR identified a number of potential locations of suitable material in the Folly River and the CBRS for the proposed renourishment. The footprint of the borrow area in the Folly River for the proposed action was defined as to minimize its proximity to the Sanctuary.

The USACE does not believe the dredging will adversely impact the Sanctuary, including any piping plover and red knot that may frequent this area. However, the USACE has generally agreed to place up to approximately 40,000 cy of material onto the Sanctuary as part of the proposed Project. As previously noted, and the USACE is currently in contact with the USFWS and SCDNR to identify the location and conditions that would be most beneficial to birds. Although the placement of sand would be a beneficial action, the placement would need to be done in manner to that reduces impacts, including by selecting a suitable location and performing the placement outside of the critical nesting season for the plover and red knot (March 15 – October 15).. Additionally, the USACE will use remotely sensed imagery to monitor the size and shape of the Bird Key Stono Seabird Sanctuary over the year following the project.

Substantial consultation has already occurred between the USACE and USFWS in preparation of a BA released by the USACE in December 2013, and issuance of a Biological Opinion by the USFWS in April 2014 for the 2014 Folly Beach Shore Protection Project. Since these documents did not address the Folly River borrow area, USACE initiated formal consultation with USFWSwith preparation of an amended BA. Additionally, the USFWS issued a Biological Opinion for the City of Folly Beach's proposed Folly Beach Renourishment and Groin Rehabilitation Project on November 1, 2017 (Appendix 8). Although the groin project by the City is a separate project, the 2017 Biological Opinion already addresses use of the Folly River borrow area, and the portions of the placement area for this emergency rehabilitation coincide with the area of the groin project. Based on these facts, it is the USACE's understanding

that USFWS plans to amend their November 1, 2017 Biological Opinion in response to the amended BA that the USACE has prepared for the Project. Based on discussions to date, the USACE anticipates that the amended Biological Opinion will be consistent with the determinations the USACE is making in this EA (and past NEPA documentation) associated with this Project.

Consultation with the NMFS with respect to the ESA is following NMFS' emergency consultation protocols. No takes are anticipated because of limited presence of threatened or endangered marine species and critical habitat, and because of the existence of a Regional Biological Opinion (RBO) for the South Atlantic Region and the USACE's past and present commitment to adhere to the Terms and Conditions of the RBO.

Therefore, with respect to threatened and endangered species and critical habitat, the USACE has determined that the proposed action to use the Folly River for the Project has:

- No effect on seabeach amaranth and on blue, finback, humpback, sei, sperm, and Atlantic right whale
- May affect, but is not likely to adversely affect the wood stork; west Indian manatee; Kemp's ridley sea turtle, leatherback sea turtle, hawksbill sea turtle, green sea turtle, loggerhead sea turtles, shortnose and Atlantic sturgeon, piping plover, and rufa red knot.
- May affect, but is not likely to adversely affect critical habitat for piping plovers and red knot.

Cultural Resources: Federal undertakings must comply with the Archaeological and Historical Preservation Act of 1974 (16 USC 469-469c), the Abandoned Shipwreck Act of 1987 (PL 100-298; 43 USC 2101- 2106), The National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 et seq.) and the Advisory Council on Historic Preservation's implementing regulations 36 CFR Part 800 (protection of Historic Properties). Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to provide the Advisory Council on Historic Preservation with a reasonable opportunity to comment on a Federal undertaking. The placement of sand on beaches and the use of sand from borrow areas are typically subjected to such investigations in order to locate cultural resources, including historic properties for purposes of NHPA Section 106 review.

Since previous investigations for the Project and dredging of Folly River have not found historical or archeological resources, none are anticipated for this emergency rehabilitation. However, the USACE will perform magnetometer and side-scan survey of the pipeline alignment from the borrow area to ensure no cultural resources are being impacted. If any unexpected resources are discovered while conducting the proposed action, the USACE requires that operations be halted immediately to avoid the resource. The USACE will report the discovery to the South Carolina State Historic Preservation Office and South Carolina Institute of Archeology and Anthropology electronically in a timely manner. Additional surveys will then be conducted to identify potential areas to relocate any pipeline, anchors, buoys, or equipment associated with the dredge pipeline at least 100 feet from the cultural resource.

Coastal Zone Consistency: The Coastal Zone Management Act (CZMA), passed in 1972, provides for the management of the nation's coastal resources by balancing economic development with environmental conservation. The goal of the CZMA is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone." The CZMA applies to many different federal actions including federal agency activities, federal license or permit activities, outer continental shelf plans, and federally assisted state projects. The CZMA promotes cooperation and coordination between states and the federal government in order to promote federal consistency and protect our nation's coastal resources. Federal agencies provide states with a consistency determination for federal agency activities.

In 2014, the South Carolina Department of Health and Environmental Control/Office of Ocean and Coastal Resource Management (OCRM) concurred that the 2014 renourishment effort of the Folly Beach Shore Protection Project was consistent with the South Carolina Coastal Zone Management Program (Appendix 9). The USACE has again reviewed the applicable state policies and requested South Carolina OCRM's concurrence with the determination that the proposed renourishment of the Project is consistent to the maximum extent practicable with the enforceable policies of South Carolina Coastal Zone Management Program. This determination is supported by analysis of the proposed Project with the following applicable enforceable resource policies of the South Carolina Coastal Zone Management Program: (1) Wildlife and Fisheries Management, (2) Dredging, (3) Erosion Control, (4) Activities in Areas of Special Resource Significance, and (5) Beach and Shoreline Access.

Environmental Justice, Protection of Children: No disproportionately high and adverse environmental effects are anticipated for low income or minority communities as a result of the emergency rehabilitation proposed herein. Similarly, the proposed action does not present any material environmental health or safety risk to children.

6. Public Coordination

The Council on Environmental Quality (CEQ) regulations require that federal agencies "(a) make diligent efforts to involve the public in preparing and implementing their NEPA procedures and (b) provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected (40 CFR 1506.6(a) and (b)). As such, a draft of this document was shared with Federal, State, Tribal, and local government entities having jurisdictional responsibilities, or otherwise having an interest in the project, as well as members of the public. All comments received during the comment period are included in Appendix 11 of this final EA. The USACE's responses to the comments can also be found in Appendix 11, and have been incorporated into the final EA as appropriate.

7. Conclusion

This EA describes the position of the USACE on the effected environment and environmental impacts of dredging and transporting material from the Folly River for the proposed Flood Control and Coastal Emergencies rehabilitation of Folly Beach to the pre-storm condition. In order to appropriately supplement existing NEPA documentation, water quality,

benthic resources, essential fish habitat, threatened and endangered species, cultural resources, coastal zone management consistency, and allowable use of the CBRS were reviewed. In conclusion, the proposed action for the use of the Folly River for the proposed emergency renourishment does not involve a substantial change to the project or significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts such that the preparation or supplementation of an Environmental Impact Statement (EIS) is warranted. Accordingly, USACE will issue a Finding of No Significant Impact (FONSI).

8. References

Bowen, P.R., and G.A. Marsh. 1988. *Benthic Faunal Colonization of an Offshore Borrow Pit in Southeastern Florida*. Misc. Rept. D-88-5. U.S. Army Corps of Engineers, Dredging Operations Technical Support program, Vicksburg, MS.

Jutte, P.C. and R.F. Van Dolah, 2000. An assessment of benthic infaunal assemblages and sediments in the Joiner Bank and Gaskin Banks borrow areas for the Hilton Head renourishment project. Final Report, Marine Resources Research Institute, South Carolina Department of Natural Resources. 34 pp + appendices.

Jutte, P.C., R.F. Van Dolah, and P.T. Gayes, 2002. Recovery of benthic communities following offshore dredging, Myrtle Beach, South Carolina. Shore & Beach, 70(3), 25-30.

Naqvi, S.M., and C.H. Pullen. 1982. *Effects of beach nourishment and borrowing on marine organisms*. U.S. Army Corps of Engineers, Coastal Engineering Research Center, Misc. Rept. 82-14. Vicksburg, MS.

APPENDICES

Appendix 1: Final Environmental Assessment Folly Beach, South Carolina Shore Protection Project, April 1991

Appendix 2: Final Environmental Assessment and Finding of No Significant Impact for the Folly Beach, SC Shore Protection Project, January 2005

Appendix 3: Final Environmental Assessment Folly Beach Shore Protection Project and Use of Outer Continental Shelf Sand, November 2013

Appendix 4: Folly Beach Shore Protection Project: Finding of No Significant Impact, November 2013

Appendix 5: Letter from USACE to USFWS requesting an applicability determination on use of the CBRS for the proposed project dated April 28, 2017; determination letter from USFWS to USACE dated July 28, 2017; e-mail correspondence dated October 24, 2017 between USACE and USFWS regarding modifying project and use of CBRS to include addressing impacts from Hurricane Irma.

Appendix 6: Limited Re-evaluation Report (LRR) for the Folly Beach Shore Protection Project, April 2017

Appendix 7: South Carolina DHEC Waiver of 401 Water Quality Certification for Beach Nourishment Projects

Appendix 8: USFWS Biological Opinion for Folly Beach Renourishment and Groin Rehabilitation Project, City of Folly Beach, November 1, 2017

Appendix 9: Letter from SC DHEC/OCRM to USACE on Federal Consistency certification review of Environmental Assessment for the Folly Beach Shore Protection Project and Use of Outer Continental Shelf Sand

Appendix 10: Amendment to Biological Assessment of the Folly Beach Storm Damage Reduction Re-nourishment Project, Folly Beach, South Carolina, November 2017.

Appendix 11: Public and Agency Comments and Responses as of December 8, 2017