

FINDING OF NO SIGNIFICANT IMPACT

Use of Outer Continental Shelf Sand from Charlotte Harbor Block 606 for the Lovers Key, Bonita Beach, and South Bonita Beach for the Beach Nourishment Project in Lee County, Florida

Introduction

Pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508), and Department of the Interior (DOI) regulations implementing NEPA (43 CFR part 46), the U.S. Army Corps of Engineers Jacksonville District (USACE), Bureau of Ocean Energy Management (BOEM), in coordination with Lee County FL, have prepared an environmental assessment (EA) to consider use of offshore sand from Charlotte Harbor Block 606 with placement on Lovers Key, Bonita Beach, South Bonita Beach for the Lee County Beach Nourishment Project (herein referred to as the Lee County Project). The EA was prepared to determine whether authorizing the Outer Continental Shelf (OCS) sand from Charlotte Harbor 606 would have a significant effect on the human environment and whether an environmental impact statement should be prepared. Pursuant to the 43 CFR part 46, BOEM has independently reviewed the EA and FEMA's Supplemental EA associated with this project and has determined that the potential impacts of the proposed action have been adequately addressed.

The Project intends to provide storm damage reduction benefits; create, restore, and sustain habitat for Threatened and Endangered (T&E) species including but not limited to marine turtles and shorebirds, and provide recreational benefits through beach and dune fill placement utilizing the offshore sand source from Charlotte Harbor Block 606. The Lee County Project was formulated in compliance with NEPA, in coordination with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS). As a component of planning and evaluation efforts, an array of alternatives was considered for this Project, including the No Action or Future Without Project Alternative and the selected Preferred Alternative.

The USACE, as part of the Section 10/404 Permit process, prepared a joint public notice with BOEM. Additionally, FEMA prepared an independent Supplemental EA to determine the least damaging, most practicable project alternative. The scope of FEMA's evaluation of potential environmental impacts included the OCS borrow area and the sand/sediment conveyance corridors. BOEM, FEMA, and USACE have been working collaboratively to ensure effective implementation of the required NEPA process.

This Project will be constructed by the Federal Emergency Management Agency's (FEMA) Public Assistance (PA) Program under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207.

Proposed Action

BOEM's proposed action is to enter into a Noncompetitive Negotiated Agreement (NNA) with Lee County, FL, authorizing use of OCS sand resources from Charlotte Harbor Block 606 to conduct emergency beach nourishment along Lovers Key, Bonita Beach, and South Bonita Beach for the Lee County Project. The purpose of the Project is to provide storm damage reduction benefits; create, restore, and sustain habitat for T&E species including but not limited to marine turtles and shorebirds, and provide recreational benefits. The need for the Project is based on the annual monitoring conducted by the County which documented the erosion losses since the last nourishment event and the significant damage caused by Hurricane Ian.

The proposed Lee County Project will require dredging and transport of up to 3 million cubic yards (mcy) of sand from Charlotte Harbor Block 606 to pre-determined pump-out locations 29 nautical miles (nmi) (33.4 miles [mi]; 53.7 kilometers [km]) east to Lovers Key, Bonita Beach, and South Bonita Beach. Placement would occur along approximately 6 mi (9.7 km) of shoreline. The limits of the engineered beach and dune on Lovers Key extend from 500 feet north of Florida Department of

Environmental Protection Range Monuments (R/C-#) R-215 to R-221 equal to approximately 6,200 feet. The proposed beach fill template includes the permitted footprint and an increased berm elevation of +3.5 feet North American Vertical Datum of 1988 (NAVD88) to account for sea level change. The proposed template includes restoring the dune destroyed by Hurricane Ian. The dune crest elevation and width are +6.3 feet NAVD88 and 55 feet, respectively. The limits of the engineered beach and dune on Bonita Beach extend from R-226 to R-230 equal to approximately 3,900 feet. The proposed beach fill template includes a 75-foot-wide design beach plus 95 feet to account for advanced nourishment and equilibrium profile adjustment, and an increased berm elevation of +4.9 feet NAVD88 to account for sea level change. The southern end of Bonita Beach (South Bonita Beach) from R-230 to the Lee-Collier County line (R-239) is a previously unrestored section of shoreline that was impacted by Hurricane Ian. Sand placement above Mean High Water (MHW) is proposed in a one-time event to offset the storm losses.

Hopper and/or cutterhead dredges would be used depending on the contractor and dredge availability. Excavated sand would be discharged into the hopper hulls or scow barges for transport to the headland. Hopper dredges would suspend the sand within the hoppers and directly pump out the sand to the headland using a booster pump and sediment pipeline. Alternatively, a conventional cutterhead dredge would excavate the sand mechanically using a rotating cutter, then use a large suction pump to pump sand to the surface, and then transfer sand through a spider-barge distribution system into multiple scow barges. These scow barges would be towed to a pump-out area where a hydraulic dredge connected to a booster pump and sediment pipeline would offload the scows and pump the sand to the headland.

Alternatives to the Proposed Action

The USACE, in coordination with BOEM and Lee County considered a wide array of alternatives to address coastal erosion across Lovers Key and Bonita Beach. The USACE and partner agencies prepared the EA to evaluate the effects associated with the use of the offshore borrow area, within Charlotte Harbor Block 606, and two nearshore borrow areas in the State of Florida waters for the project.

The first alternative considered was to construct the beaches and dunes to their engineered designs and conduct periodic nourishment. The second alternative considered was to construct the beaches and dunes to their engineered designs and place additional sand to repair the engineered beaches and dunes to offset the losses from Hurricane Ian. The third alternative considered was to construct the beaches and dunes to their engineered designs and place additional sand to repair the engineered beaches and dunes to offset the losses from Hurricane Ian, and a one-time sand placement above MHW to repair South Bonita Beach to offset losses from Hurricane Ian.

The three Nourishment Alternatives include periodic nourishment of the permitted fill templates on an eight (8) to ten (10) year cycle. Sand from the offshore Borrow Area will be utilized for the County's scheduled event in 2024.

For the Nourishment Alternatives, the engineered beach fill template on Bonita Beach was modified to include an increased berm elevation to account for sea level change and additional beach fill width to serve as advanced nourishment between construction events. The engineered beach fill template on Lovers Key was also modified to include an increased berm elevation to account for sea level change. Based upon the hurricane damages, the Lovers Key fill template was modified to avoid potential scouring and/or escarpment formation landward of the proposed template. The template was redesigned to mimic pre-storm conditions based upon historical profiles plus address future storm impacts.

The fourth alternative considered was the No-action alternative in which no nourishment of the beaches and dunes would be accomplished, and natural processes would be allowed to run their course.

The preferred alternative was Nourishment Alternative three, which included the use of the offshore borrow area at Charlotte Harbor Block 606. The fourth alternative to the proposed action is no action. However, the potential impacts resulting from no action depends on the course of action subsequently pursued by Lee County, which could include identification of alternative offshore or upland sand sources. For Lee County, the No Action Alternative would result in continued barrier

island, estuarine, and wetland habitat deterioration and coastal erosion, and it would increase the likelihood and frequency of property damage from large storms.

Environmental Effects

Based on the effects analysis presented in the joint EA by Lee County, USACE, and BOEM, no significant impacts were identified. The EA identifies all mitigation and monitoring that is necessary to avoid, minimize, and/or reduce and track any foreseeable adverse impacts that may result from all phases of construction. A subset of mitigation, monitoring, and reporting requirements, specific to activities under BOEM's jurisdiction, will be incorporated into the NNAs (between BOEM and Lee County for the use of OCS sediment resources) to avoid, minimize, and/or reduce and track any foreseeable adverse impacts. A supplemental EA was developed by FEMA to address additional agency specific requirements of Executive Orders (EO) 11988 and 11990, as identified in 44 CFR part 9.

Significance Review

Pursuant to 40 CFR § 1508.27, BOEM analyzed the significance of potential environmental effects considering both CEQ context (such as society as a whole, human, and national; the affected region; the affected interests; and the locality) and the degree of the effects. BOEM analyzed connected actions (defined per 40 CFR 1501.9(e)(1)), including on-and-off site mobilization and beach placement activities.

BOEM considered the affected area and resources potentially present in both spatial and temporal contexts. The proposed action is considered site-specific. The area of direct fill placement includes dry sandy beach, intertidal flat/surf zone, and shallow subtidal habitat. The borrow areas include sandy submerged habitat. Effects would be limited to the placement site (including the pipeline corridors for conveying sediment to the beach) and the immediate dredging area, both of which are dominated by storms and physical processes of waves and currents. Effects of the Project would generally be limited to a 12–18-month construction window and the time interval associated with equilibration of the placement material, recovery of the disturbed borrow area, and any habitat change along the shoreline. BOEM considered the following when evaluating the degree of effects. The potential effects are generally considered reversible because they will be minor to moderate, localized, and short-lived. No long-term significant or cumulative adverse effects were identified. The primary factors noted below were considered in the EA.

1. *Beneficial and adverse effects*

The project area is part of Lee County's critically important coastal zones, a diverse complex of ecosystems that include highly productive wetlands, beach, and fresh to saline estuarine waters and water bottoms that have high value as fish and wildlife habitat (i.e., essential fish habitat, migratory bird habitat, etc.) for T&E species including but not limited to marine turtles and shorebirds, and provide recreational benefits through beach and dune fill placement. The barrier islands protect these interior environments from direct assault by tropical storms and hurricanes and function to maintain the estuarine conditions that make them so productive. In addition, the barrier islands and beaches are home to numerous communities of tourists and residents that enjoy water-related activities such as fishing, sailing, kayaking, snorkeling, and recreational diving. The industry supporting those water-related activities such as local fishing guides and shops, dive shops and boat operators, ecotourism, are also located within the vicinity of the beach and barrier islands. Protection and restoration of these barrier islands will prevent further degradation of these nationally important environmental and economic assets.

The Project will provide additional beach, dune, and marsh habitat for marine and estuarine fisheries resources and their forage species, as well as for a wide variety of avian communities including shorebirds, wading birds, colonial nesting birds, and as well as migratory birds. A shorebird protection and bird abatement plan has been developed to protect avian resources, such as piping plovers and red knot, during construction. Benthic resources in the Beach Fills and Borrow Area will

be disturbed by both excavation and fill placement during construction. These disturbances are unavoidable, and the habitats recover timely. The cumulative impact of Project implementation will create, enhance, or restore over 83 acres of beach and dune which will protect the interior estuarine resources from storm surge and breaching. A positive cumulative impact will also accrue to the ecological benefits, including pelagic and benthic estuarine productivity, wildlife habitat, Essential Fish Habitat (EFH), migratory bird habitat, and habitat for T&E species into the future.

The potential adverse effects to the physical environment, biological resources, cultural resources, and socioeconomic resources have been considered. Adverse effects to benthic habitat and communities in the borrow area are expected to be temporary and reversible. Short-term adverse effects on fish habitat and fishes are expected within the dredged area due to the disturbance of benthic habitat and changes in shoal topography, and in the fill placement area due to the burial of existing benthic habitat. The potential effects to sea turtles, migratory birds, marine mammals, and cultural resources in the vicinity of operations have been reduced through tested mitigation including, but not limited to, surveys for and avoidance of nesting birds, monitoring, and cultural resource buffers.

Hydraulic cutterhead pipeline dredges present discountable risks as they have not been implicated in turtle takes, presumably because the slow-moving cutterhead is readily discerned and easily avoided by these species. Additionally, in numerous previous opinions issued by NMFS to the USACE and BOEM since 1991 in both the South Atlantic and Gulf of Mexico USACE districts, hydraulic cutterhead pipeline dredge use has been determined to be unlikely to adversely affect any listed species under NMFS's purview. If the hopper dredge method is used, sea turtle relocation trawling, paint test inspection, and all appropriate mitigation measures will be employed as specified in the *"Biological Opinion on Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts"* (GRBO; NMFS Tracking Number SER-2000-01287, issued November 19, 2003, and revised June 24, 2005, and January 9, 2007), *"Biological Opinion for Bonita Beach and Lover's Key Beach Renourishments"* (NMFS Tracking Number SER-2012-02829), and the *"Endangered Species Act – Section 7 Consultation Batched Biological Opinion (SERO-2023-00206)"* (herein referred to as the Stacked BO) most recently received on August 25, 2023.

The effects to sea turtles, marine mammals, nesting and courting shorebirds, giant manta rays, and water quality will be monitored. There are no coral reefs or hard bottoms within or immediately adjacent to the Beach Fills or Borrow Areas. Temporary displacement of birds near the shoal site or beach shoreline/beach could occur. Birds may be attracted to feeding near the dredge, at the borrow area, or near discharge pipelines on the beach. Impacts would be short-term, localized, and temporary, and they should have no lasting effects on bird populations in the area. Temporary reduction of water quality is expected due to turbidity during dredging and placement operations. Small, localized, temporary increases in concentrations of air pollutant emissions are expected, but the short-term impact by emissions from the dredge or the tugs would not affect the overall air quality of the area. A temporary increase in noise level during construction in the vicinity of the dredging would occur. For safety reasons, navigational and recreational resources located in the immediate vicinity of the dredging operation would temporarily be unavailable for public use. No archaeological/cultural resources will be affected. A dredge with global positioning system (GPS) equipment will be used to ensure that the dredge is operating in the authorized location. An unexpected finds clause will be implemented in case any potentially significant, unrecorded archaeological/cultural resources are discovered during operations. All appropriate mitigation measures will be employed as specified in the Stacked BO.

2. Effects on public health or safety

Significant effects to public health and safety are not expected. The project would provide for increased recreational opportunity (e.g., beach access, fishing, wildlife viewing) from the improved beach and dune habitat. Temporary disruption to recreation would occur in small alongshore stretches as the construction progresses along the beach. The project would result in improved visual amenity and long-term recreational improvements. Construction of the beach would provide protection of existing infrastructure as well. Noise would temporarily increase at the placement locations during

construction, and then would return to ambient levels after project completion. The construction equipment at the beach placement site could pose a minor public safety risk. The public is typically prevented from entering the segment of beach under construction; therefore, recreational activities will not be occurring near operations. During dredging operations, watercraft access will be restricted in the dredging area in the interest of public safety. These restrictions would be of short duration and are expected to be minor to boat operators. Public access during dredging and placement and the use of the area immediately surrounding the borrow area and in the vicinity of the shore restoration area would be restricted due to public safety. The USACE's Section 10/404 Permit also requires the County's contractors to coordinate and develop a safety plan with the U.S. Coast Guard. Emissions would decrease air quality in the immediate vicinity of placement activities. BOEM and the USACE used the EPA EJSscreen to determine that there are no minority or low-income populations in the Project area; therefore, the Project would not disproportionately affect populations outlined in Executive Order 12898.

3. *Effects that would violate a Federal, State, Tribal, or local law protecting the environment*

The USACE and BOEM have completed ESA and Magnuson-Stevens Fishery Management and Conservation Act consultations. The USACE determined that beach placement of sand associated with the Projects is within scope of the USFWS Biological Opinion. The USACE, BOEM, and FEMA have determined that dredging activities associated with the Project is within scope and will operate under the GRBO and the "*Endangered Species Act – Section 7 Consultation Batched Biological Opinion*" (herein referred to as the Stacked BO) most recently received on August 25, 2023, for the nearshore borrow area and offshore borrow area. The offshore borrow area managed by BOEM is not a part of the current GRBO, therefore BOEM adopted the mitigative and protective measures from the GRBO and the Stacked BO for the offshore borrow area. Lee County will comply with all relevant project design criteria (PDCs), Reasonable and Prudent Measures (RPMs), and associated Terms and Conditions (T&Cs).

The Project complies with the Marine Mammal Protection Act. Marine mammals are not likely to be adversely affected by the Projects and incorporation of safeguards to protect threatened and endangered species during project construction (e.g., vessel speed requirements, protected species observers, etc.) would also protect non-listed marine mammals in the area.

The Projects will not result in any short-term or long-term adverse impacts to threatened and endangered species or migratory bird species in the project construction areas. The projects will result in long-term beneficial impacts through the creation and sustain beach and dune habitats for a wide variety of avian communities including shorebirds, wading birds, and colonial nesting birds, as well as migratory birds. In addition, a shorebird protection and bird abatement plan will be developed cooperatively with State and Federal wildlife agencies to protect avian resources during construction.

The USACE, BOEM, and FEMA coordinated with the Florida Division of Historical Resources and State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officers (THPOs), as required by Section 106 of the National Historic Preservation Act. The SHPO concurred with the determination that the proposed Project would have no adverse effects to historic properties listed, eligible, or potentially eligible for listing in the National Register of Historical Places provided avoidance of the nearshore targets. Lee County will immediately cease operations and notify USACE, BOEM, and the SHPO if an unexpected discovery occurs.

The Lee County Project is currently permitted by the Florida Department of Environmental Protection (FDEP) Joint Coastal Permit (JCP) #0311811-001-JC (expires June 24, 2028) and USACE Permit #SAJ-2012-00198 (IP-MJD) and permit modification (MOD-SJF) (expires Sept 3, 2028). The County applied for modification to the permits. FDEP issued a major modification #0311811-004-JM on December 14, 2022 (expires June 24, 2028) and issued a minor modification #0311811-005-JN on June 12, 2023 (expires June 24, 2028).

The JCP constitutes a finding of consistency with Florida's Coastal Management Program, as required by Section 307 of the Coastal Zone Management Act (CZMA); the JCP also constitutes certification of compliance with Florida water quality standards pursuant to Section 401 Clean Water Act (CWA) (33 U.S.C. § 1341).

Consultations and Public Involvement

The USACE, serving as the lead Federal agency, posted a public notice on October 27, 2022. BOEM was listed in the point-of-contact information for the public notice. Both USACE, serving as the lead Federal agency, and BOEM, serving as the lead agency on the OCS portion of the project, have coordinated with FWS, NMFS, the U.S. Environmental Protection Agency, Florida State Historic Preservation Officer, and the Tribes of Florida in support of this leasing decision. The USACE permit was reviewed by FWS and NMFS prior to issuance, and all the appropriate mitigations have been included as conditions within the permit. Additionally, to avoid, minimize, and/or mitigate any foreseeable OCS adverse impacts, BOEM will incorporate appropriate terms and conditions (enforceable by BOEM) into the NNA.

After signature of this Finding of No Significant Impact (FONSI), the EA and FONSI will be posted on BOEM's website at <http://www.boem.gov/Non-Energy-Minerals/Marine-Mineral-Projects.aspx>.

Conclusion

BOEM has considered the consequences of issuing an NNA to authorize the use of OCS sand from Charlotte Harbor Block 606. BOEM jointly prepared and independently reviewed both the EA and FEMA supplemental EA and finds that it complies with the relevant provisions of CEQ and DOI's regulations implementing NEPA and other BOEM requirements. Based on the NEPA and consultation process coordinated cooperatively by USACE and BOEM, appropriate terms and conditions enforceable by BOEM will be incorporated into the NNA to avoid, minimize, and/or mitigate any foreseeable adverse impacts. The USACE's Section 10/404 Permit requirements include the U.S. Coast Guard's requirements that serve as additional safeguards to reduce risk and to minimize and mitigate foreseeable and unforeseen impacts.

Based on the evaluation of potential impacts and mitigating measures discussed in the EAs, BOEM finds that entering into an NNA, with the implementation of the mitigating measures, does not constitute a major Federal action significantly affecting the quality of the human environment, in the sense of NEPA Section 102(2)(C), and will not require preparation of an environmental impact statement.

**PERRY
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Digitally signed by PERRY BOUDREAUX
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February 21, 2024

Date