

FINDING OF NO SIGNIFICANT IMPACT

Use of Outer Continental Shelf Sand from Ship Shoal Block 88 for the NRDA Caillou Lake Headlands (Whiskey Island) Restoration Project Terrebonne Parish, Louisiana

Introduction

Pursuant to the National Environmental Policy Act (NEPA) and the Council on Environmental Quality's (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508), the Louisiana Coastal Protection and Restoration Authority (CPRA), in coordination with the Bureau of Ocean Energy Management (BOEM), prepared an environmental assessment (EA) (Attachment 1) to determine whether authorizing the use of Outer Continental Shelf (OCS) sand from Ship Shoal would have a significant effect on the human environment and whether an environmental impact statement (EIS) should be prepared. Pursuant to the U.S. Department of the Interior's (DOI) regulations implementing NEPA (43 CFR part 46), BOEM has independently reviewed the EA and has determined that the potential impacts of the proposed action have been adequately addressed.

This Project was originally developed as part of the Louisiana Coastal Area (LCA) Program, authorized by the Water Resources Development Act of 2007 (WRDA 2007), which authorized a feasibility report for the Terrebonne Basin Barrier Shoreline Restoration (TBBSR) Project. The TBBSR Integrated Feasibility Study and Final EIS (U.S. Dept. of the Army, Corps of Engineers, 2010) included detailed analyses of alternative designs for individual islands and combinations of islands as well as analyses of the costs and cost effectiveness of the alternatives.

The four-island National Ecosystem Restoration (NER) Plan, recommended by the TBBSR Project, included restoration of Whiskey Island, and this Project follows the design parameters set forth in the TBBSR National Ecosystem Restoration Plan. The TBBSR Plan was formulated in compliance with NEPA, in coordination with the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS), and the Louisiana Department of Wildlife and Fisheries (LADWF), as per the Fish and Wildlife Coordination Act. A coordination act letter report is incorporated into the Final EIS. As a consequence of all of the preceding planning and evaluation efforts, only two (2) alternatives were considered for this Project: the No-Action or Future-Without-Project Alternative and the Restoration Alternative.

The U.S. Department of the Army, Corp of Engineers (COE), as part of the 10/404 permitting process, prepared a joint public notice (Attachment 2) with BOEM, the Louisiana Department of Natural Resources (LADNR), and the Louisiana Department of Environmental Quality (LADEQ). Additionally, the COE prepared an independent EA to determine the least-damaging, most practicable project alternative. The scope of the COE evaluation of potential environmental impacts included the OCS borrow area and both sand/sediment conveyance corridors. BOEM and the COE have been working collaboratively to ensure effective implementation of the required NEPA process.

Proposed Action

BOEM's proposed action is the issuance of a negotiated noncompetitive agreement (NNA) to authorize the use of sand from the Ship Shoal sand body, which is located in Federal waters on the OCS approximately 8.2 nautical miles (nmi) southwest of Whiskey Island. The borrow site has been designated as the Ship Shoal Block 88 Borrow Area. A second borrow area is proposed within Louisiana State waters and is not part of BOEM's agreement/lease action. The purpose of BOEM's proposed action is to respond to a request for the use of OCS sand under the authority granted to DOI by the Outer Continental Shelf Lands Act (OCSLA). The legal authority for the issuance of negotiated noncompetitive leases for OCS sand extraction and transport across the OCS is provided by the OCSLA (43 U.S.C. § 1337(k)(2)).

The overall project area includes the Restoration Area on Whiskey Island; two (2) Borrow Areas located in the Gulf of Mexico, the sand source located approximately 8.2 nmi to the southwest of the Island on the OCS in Ship Shoal Block 88, and the mixed sediment source located approximately 4.2 nmi to the southeast of the Island in State-owned waters; and two (2) temporary dredge pipeline Conveyance Corridors connecting the Borrow Areas to the Restoration Area. For the beach and dune restoration,

material will be placed along approximately 23,500 feet (ft) of shoreline. The dune will be constructed with a typical width of 232 ft at the base and 100 ft at the crest. The beach fill will be placed approximately 464 ft wide along the length of the shoreline. A dike will be constructed to contain fill material, and a sand fence will be installed. For the marsh restoration, approximately 972,000 cubic yards (yds³) of mixed sediment will be placed and planted within a 5,500 ft by 1,000 ft area surrounded by primary and secondary containment dikes to prevent fill from entering the adjacent mangroves on the bay side of the island. All proposed containment dikes will be constructed by excavating borrow channels adjacent to the dikes. Approximately 447,800 yds³ of material will be excavated and used for construction of the dikes. Mined sediment will be transported via the placement of a temporary 30-inch diameter sediment pipe. A temporary 500-ft wide conveyance corridor will be required from each of the borrow areas. No dredging will be required for the corridors.

Ship Shoal Block 88 was selected because of its proximity to the Project site and the high-quality surficial sand resources present. Ship Shoal has been studied extensively to define the stratigraphy of the shoal and identify any potential cultural resources and infrastructure that may be present; conflicts were identified and buffers established. The surface area is approximately 650 acres. The sand thickness is up to 18 ft. The design depth ranges from -27 ft NAVD88 to -34 ft NAVD88 with a 2.0-ft allowable overdredge ranging from -29 ft NAVD88 to -36 ft NAVD88. The design volume is estimated to be 11.6 million yds³. The available sediment is composed of over 96% sand that is classified as very fine sand in the Wentworth scale and fine sand in ASTM soil size ranges.

The depths needed for efficient utilization of hopper dredges precludes their use for the Project without unnecessary dredging at both Borrow Areas and the approaches to Whiskey Island; therefore, that alternative was not considered further. Thus, a conventional cutterhead dredge would excavate the sand mechanically using a rotating cutter and then use a large suction pump to pump sand through a temporary sediment conveyance pipeline to the fill area. The temporary dredge pipeline corridors have been surveyed to identify potential cultural resources and existing infrastructure. Where the corridor intersects existing oil and gas pipeline rights-of-way (ROWs), the ROW holder has been identified and coordination would occur between the lessee and operator prior to dredge and sand pipeline mobilization.

Presently, it is believed that hydraulic cutterhead dredges are unlikely to kill or injure sea turtles because it is believed that the cutterhead encounters a smaller area of seafloor per unit time, allowing more time for turtles to escape. Hydraulic cutterhead pipeline dredges have never 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 Corps of Engineers (COE) since 1991 in both the South Atlantic and Gulf of Mexico COE districts, hydraulic cutterhead pipeline dredge use has been determined to be unlikely to adversely affect any listed species under NMFS's purview (USDOC, NMFS, 2005; Hawk, official communication, 2012).

Alternatives to the Proposed Action

The only alternative to BOEM's proposed action is no action. However, the potential impacts resulting from BOEM's no action actually depend on the course of action subsequently pursued by the CPRA, which could include identification of alternative offshore or upland sand sources. In the CPRA's case, 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.

In past environmental analyses for this restoration project, a number of alternatives related to sand sources has been considered. The alternatives have narrowed over time due to lack of sufficient volume, inferior sediment quality relative to the native beach sand, potential for excavations closer to shore to alter wave climate and exacerbate shoreline erosion, and/or the presence of existing pipelines, oil and gas wells, and associated industry structures.

Environmental Effects

The NRDA Caillou Lake Headland (Whiskey Island) was originally developed as part of the LCA Program, authorized by the Water Resources Development Act of 2007 (WRDA 2007), which authorized a COE feasibility report for the TBBSR Project. The four-island NER Plan recommended by the TBBSR Project included restoration of Whiskey Island, and this Project follows the design parameters set forth in

the TBBSR National Ecosystem Restoration Plan. In essence, the proposed project is the selected least-damaging, environmentally beneficial, and cost-effective project alternative.

As noted in the EA, the COE issued a Section 10/404 Permit for the Project on June 18, 2014 (Attachment 3). Prior to permit issuance, the LADEQ issued a water quality certification on March 11, 2013 (Attachment 4). The LADNR issued a coastal use permit on October 29, 2013 (Attachment 5), and a Consistency Determination for activities on the OCS on October 25, 2013 (Attachment 6). On February 11, 2013, the COE, LADNR, LADEQ, and BOEM prepared and published a joint 30-day public notice that included the OCS portion of the project. The COE also completed an Environmental Assessment/Decision Document (Attachment 7) that evaluated the entire project to include the proposed use of OCS sand resources. The LADNR's Coastal Use Permit/Consistency Determination and COE's Section 10/404 Permit and EA concluded that the proposed project did not result in any significant long-term environmental impacts and that the project is in the public's interest.

Based on the effects analysis presented in the Bureau of Ocean Energy Management's EA (Attachment 1), 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 NNA (between BOEM and CPRA for the use of OCS sediment resources) to avoid, minimize, and/or reduce and track any foreseeable adverse impacts.

Significance Review

Pursuant to 40 CFR § 1508.27, BOEM evaluated 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 intensity factors. The potential significance of environmental effects has been analyzed in both spatial and temporal contexts. 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. Impacts that may be both beneficial and adverse

The project area is part of Louisiana's critically important coastal zone, a diverse complex of ecosystems that include highly productive wetlands and fresh to saline estuarine waters and water bottoms that have high value as fish and wildlife habitat (essential fish habitat, migratory bird habitat, etc.) as well as high commercial and recreational fishery value (finfish, crustaceans, shellfish, etc.). The barrier islands protect these interior environments from direct assault by tropical and extratropical storms and function to maintain the estuarine conditions that make them so productive. In addition, the barrier islands protect a basin fringed by public and private infrastructure associated with numerous communities that provide essential services to the offshore oil and gas industry, and also filled with private infrastructure associated with petroleum extraction and distribution. 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 migratory songbirds. A shorebird protection and bird abatement plan has been developed cooperatively by CPRA and the FWS to protect avian resources during construction. Benthic resources on the Borrow Areas and at Whiskey Island will be disturbed by both excavation and fill placement during construction. These disturbances are unavoidable and the habitats recover rapidly. The cumulative impact of Project implementation will create nearly 900 acres of beach and dune, which will protect the adjacent wetlands, including the 140 acres of new marsh, 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, migratory bird habitat, and habitat for threatened and endangered species into the future. The project will also provide sand that will be naturally distributed by wave-generated currents to maintain and enhance downdrift barrier island habitats outside of the project footprint.

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.

Presently, it is believed that hydraulic cutterhead dredges are unlikely to kill or injure sea turtles because it is believed that the cutterhead encounters a smaller area of seafloor per unit time, allowing more time for turtles to escape (USDOC, NMFS, 2005; Hawk, official communication, 2012). Hydraulic cutterhead pipeline dredges have never 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 COE and BOEM since 1991 in both the South Atlantic and Gulf of Mexico COE districts, hydraulic cutterhead pipeline dredge use has been determined to be unlikely to adversely affect any listed species under NMFS's purview (USDOC, NMFS, 2005).

The effects to sea turtles, marine mammals, nesting and courting shorebirds, and water quality will be monitored. No impacts to hard bottom benthic communities will occur. 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 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.

2. Degree to which the proposed action affects public health or safety

The proposed activities are not expected to significantly affect public health. Construction noise will temporarily increase ambient noise levels, and equipment emissions would decrease air quality in the immediate vicinity of placement activities. The public is typically prevented from entering the segment of beach under construction; therefore, recreational activities will not be occurring in close proximity to 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 COE's Section 10/404 Permit also requires the CPRA contractors to coordinate and develop a safety plan with the U.S. Coast Guard.

3. Unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

No prime or unique farmland, designated wild and scenic reaches, or wetlands would be impacted by implementation of this project. Also, there will be no significant impacts to critical habitat or essential fish habitat. The CPRA's dredge contractor and the pipeline corridors will be monitored for effects during dredging operations, pump-out, placement, and beach shaping operations.

4. Degree to which the effects on the quality of the human environment are likely to be highly controversial

No controversial effects are expected. Effects from beach nourishment projects, including dredging on the OCS, are well studied. The effects analyses in the EA have relied on the best available scientific information, including information collected by BOEM that is specific to this OCS borrow area, from past COE-contracted dredging and permitted dredging activities in and adjacent to the project area, and from research conducted by CPRA in support of barrier island restoration projects. Negative effects of dredging and barrier shoreline restoration activities on shoreline change, benthic communities, nesting and swimming sea turtles, and shorebirds are expected to be minimal, localized, and short-term.

5. Degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks

Coastal/shoreline restoration projects are a common solution to coastal erosion and land loss problems along the Louisiana coast. Federally authorized and permitted beach and barrier island restoration and emergency shoreline sand nourishment actions have been ongoing since the mid-1990's and have increased since Hurricane Katrina in 2005. No significant adverse effects have been documented during or as a result of past operations. This Project was originally developed as part of the LCA Program, authorized by the Water Resources Development Act of 2007 (WRDA 2007), which authorized a COE feasibility report for the TBBSR Project. Mitigation and monitoring efforts are similar to that undertaken for past projects and have been demonstrated to be effective. The effects of the proposed action are not expected to be highly uncertain, and the proposed activities do not involve any unique or unknown risks.

6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

No precedent for future action or decision in principle for future consideration is being made in BOEM's decision to authorize the use of OCS sand from Ship Shoal. BOEM considers each use of a borrow area on the OCS as a new Federal action. BOEM's authorization of the use of the borrow area does not dictate the outcome of future leasing decisions. Future actions will also be subject to the requirements of NEPA and other applicable environmental laws.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts

Significance may exist if it is reasonable to anticipate cumulatively significant impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. The EA identifies those actions and the potential impacts related to underlying activities. The EA and previous NEPA/regulatory documents conclude that the activities related to the proposed action are not reasonably anticipated to incrementally add to the effects of other activities to the extent of producing significant effects. Based on research and numerical modeling conducted by BOEM in anticipation of dredging activities at Ship Shoal, the seafloor is expected to equilibrate and sediment will accumulate in the Ship Shoal borrow location. The proposed project provides an incremental but localized effect on the reduction of offshore sand resources. Although there will be a short-term and local decline in benthic habitat and populations, both are expected to recover within a few years. No significant cumulative impacts to benthic habitat are expected from the use of the borrow site.

8. Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources

The proposed action will not affect any significant known scientific, cultural, or historic resources. Results of both terrestrial and open-water cultural resource surveys determined the absence of significant scientific, cultural, or historic resources within the area of potential effect. Four potential cultural

resources were located in close proximity to the proposed activities; however, these will be avoided, which resulted in a no effect determination by BOEM and the Louisiana State Historic Preservation Officer (SHPO) (Attachment 8). Section 106 coordination with the SHPO and the Chitimacha Tribe of Louisiana has been completed and no additional cultural resource investigations are warranted. All of these activities have been completed in accordance with the National Historic Preservation Act (NHPA), as amended; the Archeological and Historic Preservation Act (AHPA), as amended; and Executive Order 11593. The project is in full compliance with the NHPA, as well as with the AHPA and Executive Order 11593. Additionally, an "Unanticipated Discoveries Plan for Archaeological Properties including Human Skeletal Remains" has been prepared.

9. Degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973

This project was fully coordinated under the Endangered Species Act (ESA) and is in full compliance with the Act. The COE has consulted with the FWS and NMFS. The CPRA prepared an EA, which was submitted to BOEM and the COE. BOEM participated in the preparation and publication of a Joint Public Notice with LADEQ, LADNR, and the COE. The Public Notice was published on February 11, 2013 (Attachment 2). Prior to the preparation of the Public Notice, the FWS and NMFS participated in a 10/404 pre-application meeting, which was held on December 11, 2012, at the COE New Orleans District office. The FWS commented on the Public Notice in a letter dated March 18, 2013 (Attachment 9). The FWS was initially concerned with the potential effects on nesting sea turtles, migratory birds, the piping plover and its designated critical habitat, and the West Indian manatee, which were referenced in their September 23, 2010, Biological Opinion associated with the Corps of Engineers' TBBSR restoration projects. The FWS concurred with the COE that the proposed project was not likely to adversely affect the West Indian manatee and not likely to jeopardize the continued existence of the piping plover and not adversely modify its designated critical habitat, given the estimated piping plover take. Additionally, the COE provided that appropriate mitigations (as noted in the FWS Biological Opinion) would be incorporated as conditions in COE's Section 10/404 Permit (Attachment 3). Additionally, the CPRA and FWS prepared and will implement a migratory bird abatement plan for shorebirds. A copy of that plan is attached to the COE permit (Attachment 3).

The Protected Resources Division coordinator and the NMFS essential fish habitat coordinator, in emails dated November 29, 2012, and April 1, 2013 (Attachment 10), did not have any detailed comments and concerns. The NMFS coordinator stated "I don't believe you need to consult with us. We don't have any new information that would change our previous conclusions that cutterhead dredges and clamshell dredges present discountable risks to motile protected species under our purview." Additionally, the existing September 2005 NMFS Biological Opinion issued to BOEM, titled "Hopper and Hydraulic Cutterhead Dredging Associated with Sand Mining for Coastal Restoration Projects Along the Coast of Louisiana Using Sand from Ship Shoal in the Gulf of Mexico Central Planning Area, South Pelto Blocks 12, 13, and 14 and Ship Shoal Block 88" (Consultation No. F/SERL2003/01247), covers this current project and adequately addressed the issues associated with threatened and endangered species. The Biological Opinion noted that hydraulic cutterhead pipeline dredges have never 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 COE since 1991 in both the South Atlantic and Gulf of Mexico COE districts, hydraulic cutterhead pipeline dredge use has been determined to be unlikely to adversely affect any listed species under NMFS's purview; therefore, hydraulic cutterhead dredges will not be considered further in this opinion.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment

The COE's Section 10/404 Permit and LADNR's Coastal Use Permit require that CPRA comply with all applicable Federal, State, and local laws and requirements. The COE and BOEM have completed required ESA and Marine Mammal Protection Act coordination with NMFS and FWS. A Coastal Use Permit and Consistency Determination from the LADNR and a Section 401, Clean Water Act Water Quality Certification from the Louisiana Department of Environment Quality has been issued for the

proposed action. Through COE's Section 10/404 Permit, monitoring and mitigation efforts with regard to migratory birds have been coordinated with FWS and the LADWF; an approved migratory bird abatement plan will be implemented. The project will be in compliance with these Acts. Monitoring and mitigation efforts with regard to migratory birds are being coordinated with FWS and the LADWF; a migratory bird abatement plan will be implemented as conditioned in COE's Section 10/404 Permit (Attachment 3). The proposed action is in compliance with the Marine Mammal Protection Act. Marine mammals are not likely to be adversely affected by the project, and incorporation of safeguards to protect threatened and endangered species during project construction would also protect marine mammals in the area. A water quality certification has been issued by the LADNR, and water quality will be monitored to ensure State water quality standards are not violated.

Consultations and Public Involvement

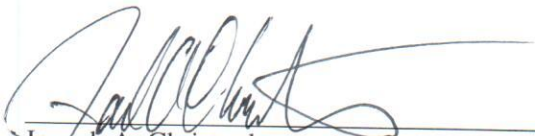
The LADNR and the COE, serving as the lead Federal agency, posted a public notice with a 20-day comment period on February 11, 2013. At the request of FWS and NMFS, the comment period was extended an additional 10 days. The LADNR also published a public notice in local newspapers and in the Baton Rouge *Advocate* on February 11, 2013. BOEM was listed in the point-of-contact information for both public notices. Both COE, serving as the lead Federal agency, and BOEM, serving as the lead agency on the OCS portion of the project, have coordinated with FWS, the National Marine Fisheries Service, the U.S. Environmental Protection Agency, the Natural Resource Conservation Service, the Louisiana SHPO, and the Chitimacha Tribe of Louisiana in support of this leasing decision. Pertinent correspondence with Federal and State agencies is attached (Attachments 1-10). The COE permit was reviewed by FWS and NMFS prior to issuance, and all of 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), a Notice of Availability of the FONSI and EA will be prepared and published by BOEM in the *Federal Register* or by other appropriate means. 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 Ship Shoal. BOEM jointly prepared and independently reviewed the attached EA (Attachment 1) and finds that it complies with the relevant provisions of CEQ and DOI's regulations implementing NEPA and other Marine Mineral Program requirements. Based on the NEPA and consultation process coordinated cooperatively by the COE, CPRA, 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 COE's Section 10/404 Permit requirements include U.S. Coast Guard 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 EA (refer to Appendix A of the FONSI), 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 EIS.



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10/31/14
Date

References Cited

- Hawk, official communication (email). 2012, Protected Resources Division, St. Petersburg, Florida
- U.S. Army Corps of Engineers (USACE). 2010. Louisiana Coastal Area (LCA) Ecosystem Restoration Study. Vol. V of VI. Integrated Feasibility Study and Final Environmental Impact Statement for the Terrebonne Basin Barrier Shoreline Restoration, Terrebonne Parish, Louisiana. New Orleans, Louisiana
- USDOC, NMFS, 2005. "Hopper and Hydraulic Cutterhead Dredging Associated with Sand Mining for Coastal Restoration Projects Along the Coast of Louisiana Using Sand from Ship Shoal in the Gulf of Mexico Central Planning Area, South Pelto Blocks 12, 13, and 19, and Ship Shoal Block 88". Consultation Number F/SER/2003/01247, Protected Resources Division, St. Petersburg, Florida

Attachments

1. Environmental Assessment for Caillou Lake Headlands Restoration Project (TE-100)
2. Joint Public Notice
3. U.S. Department of the Army, Corps of Engineers, Section 10/404 Permit
4. Louisiana Department of Environmental Quality, Section 401 Water Quality Certification
5. Louisiana Department of Natural Resources, Coastal Use Permit (P20121652)
6. Louisiana Department of Natural Resources, Consistency Determination (C20110372)
7. U.S. Department of the Army, Corps of Engineers, Environment Assessment/Decision Document
8. Louisiana State Historic Preservation Office, Concurrence Letters
9. U.S. Department of the Interior, Fish and Wildlife Service, ESA Consultation Letter
10. U.S. Department of Commerce, National Marine Fisheries Service, ESA Comments/Consultation

FONSI

Appendix A of the FONSI – Mitigation, Monitoring, and Reporting Requirements

Appendix A

Mitigation, Monitoring, and Reporting Requirements

The following mitigating measures, monitoring requirements, and reporting requirements are proposed by the Bureau of Energy Management (BOEM) to avoid, minimize, reduce, or eliminate environmental impacts associated with the proposed action (herein referred to as the "Project"). Mitigating measures, monitoring requirements, and reporting requirements in the form of terms and conditions are added to the lease (negotiated agreement between BOEM and the Louisiana Coastal Protection and Restoration Authority [CPRA]) and are considered enforceable as part of the lease.

Plans and Performance Requirements

The CPRA will provide BOEM with a copy of the Project's "Construction Solicitation and Specifications Plan" (herein referred to as the "Plan") prior to solicitation and construction. No activity or operation authorized by the Lease at the borrow area shall be carried out until BOEM has had an opportunity to review the Plan, thus ensuring that each activity or operation is conducted in a manner that is in compliance with the provisions and requirements of the Lease. BOEM recommends that the CPRA include the Lease as a reference document in the advertised Plan. The CPRA will ensure that all operations at the borrow area are conducted in accordance with the final approved Plan and all terms and conditions in this Lease, as well as all applicable regulations, orders, guidelines, and directives specified or referenced herein.

The dredging method for removing sand from the borrow area will be consistent with those methods identified in the Project proposal analyzed in supporting National Environmental Policy Act (NEPA) documents, authorizing documents, and all associated State and Federal permits. The CPRA will allow BOEM to review and comment on modifications to the Plan that may affect the project area, including the use of submerged or floated pipelines to directly convey sediment from the borrow area to the placement site. Said comments shall be delivered in a timely fashion in order to not unnecessarily delay the CPRA's schedule and construction contract.

If dredging and/or conveyance methods are not wholly consistent with those evaluated in relevant NEPA documents and environmental and cultural resource consultations, and authorized by the U.S. Department of the Army, Corps of Engineers' (COE) 10/404 Permit and the Louisiana Department of Natural Resources' (LADNR) Coastal Use Permit (CUP), additional environmental review may be necessary. If the additional NEPA, consultations, or permit modifications would affect or otherwise supplement the provisions of the Lease, an amendment may be required.

Prior to the commencement of construction, the CPRA shall provide a summary of the construction schedule. The CPRA, at the reasonable request of BOEM or the Bureau of Safety and Environmental Enforcement (BSEE), shall allow access, to the site of any operation subject to safety regulations, to any authorized Federal inspector and shall provide BOEM or BSEE any documents and records that are pertinent to occupational or public health, safety, or environmental protection as may be requested.

Environmental Responsibilities and Environmental Compliance

BOEM is the lead Federal agency for the Outer Continental Shelf (OCS) portion of the project and the COE is the lead for the coastal and terrestrial portions of the project. Both Federal agencies must ensure that the project complies with applicable environmental laws, including, but not limited to, the Endangered Species Act (ESA), Magnuson-Stevens Fishery Management and Conservation Act, Migratory Bird Treaty Act, National Historic Preservation Act (NHPA), and Coastal Zone Management Act. The CPRA will implement recommended conservation measures and Terms and Conditions as specified in COE Permit No. MVN-2013-00266 and LADNR Permit No. P20121652, including implementation of all applicable monitoring and conditions, such as water quality monitoring, marine turtle conditions, shorebird monitoring, marine mammal special conditions, nearshore biological monitoring, the sediment quality control/quality assurance plan, and the physical monitoring plan. Additionally, the CPRA will instruct its contractor(s) to implement the mitigation terms, conditions, and measures required by the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), LADNR, COE, and BOEM pursuant to applicable Federal and State laws and regulations. The required mitigation terms, conditions, and measures are reflected in the Biological Opinions and Conservation Recommendations. Construction shall not commence until the preconstruction

requirements have been completed. Copies of all relevant correspondence, monitoring, and reporting shall be provided to BOEM within fourteen (14) days of issuance at dredgeinfo@boem.gov (including, but not limited to, observer and dredging reports).

Dredge Positioning

During all phases of the Project, CPRA will ensure that the dredge and any bottom-disturbing equipment is outfitted with an onboard global positioning system (GPS) capable of maintaining and recording location within an accuracy range of no more than plus or minus 3 meters (m) (9.8 feet [ft]). The GPS must be installed as close to the cutterhead or draghead as practicable. During dredging operations, CPRA will immediately notify BOEM at dredgeinfo@boem.gov if dredging occurs outside of the approved borrow area.

Anchoring, spudding, or other bottom-disturbing activities are not authorized outside of the approved borrow area on the OCS.

The CPRA will provide BOEM all dredging quality management (DQM) or equivalent data (positioning and production data) acquired during the project using procedures jointly developed by the COE's National Dredging Quality Management Data Program Support Center and BOEM. If the DQM procedure/support is not available to the CPRA, comparable data (in a format approved by BOEM prior to mobilization of dredging equipment to the OCS) will be submitted to BOEM at dredgeinfo@boem.gov on a biweekly basis. These biweekly dredge reports shall also include a summary of dredge excavator track lines, outlining any deviations from the original Plan. A color-coded plot of the excavator location, showing any horizontal or vertical dredge violations, will be submitted. This map will be provided in Adobe PDF format. A complete DQM or equivalent dataset will be submitted within 45 days of completion of the Project. If available, the CPRA will also submit Automatic Identification System data for vessels qualifying under the International Maritime Organization's International Convention for the Safety of Life at Sea.

Dredge Operation

Dredging will be performed so that the cutterhead dredge excavates material in a systematic, uniform manner to an overall cut depth not to exceed that which has been permitted.

Submittal of Production and Volume Information

The CPRA, in cooperation with the dredge operator, shall submit to BOEM on a biweekly basis a summary of the dredge track lines, outlining any deviations from the original plan. A color-coded plot of the cutterhead or drag arms will be submitted, showing any horizontal or vertical dredge violations. The dredge track lines shall show dredge status: hotelling; dredging; transiting; or unloading. This map will be provided in PDF format.

The CPRA will provide at least a biweekly update of the construction progress, including estimated volumetric production rates to BOEM. The biweekly deliverables will be provided electronically to dredgeinfo@boem.gov. The project completion report, as described below, will also include production and volume information, including Daily Operational Reports.

Preconstruction Notification of Activity In or Near the Borrow Area

The CPRA will invite BOEM to attend a preconstruction meeting that describes the CPRA and/or its agents' plan and schedule to construct the project.

The CPRA will notify BOEM at dredgeinfo@boem.gov of the commencement and termination of operations at the borrow area within 24 hours after the CPRA receives such notification from its contractor(s) for the project. BOEM will notify the CPRA in a timely manner of any OCS activity within the U.S. Department of the Interior's jurisdiction that may adversely affect the CPRA's ability to use OCS sand for the project.

Local Notice to Mariners

The CPRA shall require its contractor(s) for the Project to place a notice in the U.S. Coast Guard's Local Notice to Mariners regarding the timeframe and location of dredging and construction operations in advance of commencement of dredging.

Marine Pollution Control and Contingency Plan

The CPRA will require its contractor(s) and subcontractor(s) to prepare for and take all necessary precautions to prevent discharges of oil and releases of waste and hazardous materials that may impair water quality. In the event of an occurrence, notification and response will be in accordance with applicable requirements of 40 CFR part 300. All dredging and support operations shall be compliant with U.S. Coast Guard regulations and the U.S. Environmental Protection Agency's Vessel General Permit, as applicable. The CPRA will notify BOEM of any occurrences and remedial actions and will provide copies of reports of the incident and resultant actions at dredgeinfo@boem.gov.

Encounter of Ordnance

If any ordnance is encountered while conducting dredging activities at Ship Shoal, the CPRA will report the discovery within 24 hours to the Regional Supervisor, Office of Environment, Gulf of Mexico OCS Region, at 504-736-2759 and dredgeinfo@boem.gov.

Bathymetric Surveys

In order to demonstrate that bottom-disturbing activity did not occur outside of the approved area and to ensure dredging is consistent with borrow design and avoidance buffers, the CPRA will provide BOEM with pre- and post-dredging bathymetric surveys of the borrow area. The pre-dredging survey will be conducted within 60 days prior to dredging. The post-dredging survey will be conducted within 30 days after the completion of dredging. Additional bathymetric surveys are recommended in the years 1 and 3 following the completion of dredging. Hydrographic surveys will be performed in accordance with COE's Hydrographic Surveying Manual EM 1110-2-1003 unless specified otherwise by BOEM. A 100-percent coverage using interferometric swath or multibeam bathymetry data is preferred over single-beam data. All bathymetric data shall be roll, pitch, heave, and tide corrected using best practices. Survey lines of the specific dredge area, within Ship Shoal, will be established at intervals necessary to provide 100-percent coverage. Three equidistant cross-tie lines will be established parallel to the same baseline. All survey lines will extend at least 100 m (328 ft) beyond the edge of the dredge areas. All data shall be collected in such a manner that post-dredging bathymetry surveys are compatible with the pre-dredging bathymetric survey data to enable the latter to be subtracted from the former to calculate the volume of sand removed, the shape of the excavation, and the nature of post-dredging bathymetric change. Pre-dredge bathymetric survey transects shall be reoccupied during the post-dredging surveys. Surveys should be conducted using kinematic GPS referenced to the GPS base station occupying an established (North American Vertical Datum of 1988 [NAVD 88] vertical control) monument within 15 kilometers (9 miles) of the survey area or referenced to a water-level gauge deployed within the vicinity of the project area, unless alternative methods are approved by BOEM. Pre- and post-dredging surveys shall be referenced to the same water-level gauge, tide gauge, and/or benchmark, etc. An uncertainty or error analysis shall be conducted on each bathymetric dataset based on calculated differences of measured elevations (depths) at all transect crossings for that survey. A methods and uncertainty analysis report should be submitted to BOEM with the processed bathymetric data products for each survey.

Copies of pre-dredging and post-dredging hydrographic data and relevant reports will be submitted to BOEM via dredgeinfo@boem.gov within 30 days after each survey is completed. The delivery format for data submission is an ASCII file containing x, y, z data. The horizontal data will be provided in the North American Datum of 1983 (NAD 83) Louisiana State Plane south, U.S. survey feet. Vertical data will be provided in NAVD 88, U.S. survey feet unless otherwise specified. An 8.5" x 11" plan view plot of the pre- and post-construction data will be provided; these plots will show the individual survey points, as well as contour lines at appropriate elevation intervals. These plots will be provided in PDF format. Survey metadata and field notes will also be provided with each submission.

Oil and Gas Infrastructure

In the Conveyance Corridors, the Project Technical Specifications will require best management practices for sediment pipeline installation, maintenance, and removal to avoid impacts when the sediment pipeline crosses buried oil and gas pipelines. BOEM has provided the CPRA with information delineating the locations of oil and gas pipelines based on the survey documentation provided to BOEM by pipeline operators at the time of pipeline installation. Magnetometer surveys conducted in 2012 by the CPRA provide more recent information delineating the locations of oil and gas pipelines in the area.

The CPRA or their contractor(s) shall conduct a pre-dredging magnetometer survey within 60 days prior to mobilization of equipment to the OCS. This survey can be conducted simultaneously with the pre-dredge bathymetry survey and must be submitted to BOEM for approval prior to commencement of bottom-disturbing activities.

The CPRA shall notify the current BSEE pipeline rights-of-way (ROW) permit holder(s) four (4) weeks prior to the commencement of dredging operations so that the ROW permit holder(s) may take precautions to mark its pipeline segment if they choose to do so. Documentation and outcome of communication between Pipe Line Companies and/or current ROW holders and the CPRA must be provided to the Regional Supervisor, Office of Environment, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123 and to dredgeinfo@boem.gov before the commencement of dredging. It is incumbent upon the CPRA to request a current list of all oil and gas infrastructure, including, but not limited to, ROW permit holders from BOEM at the above contact in order to comply with the lease.

During all dredging operations, the CPRA shall require its contractor to observe a minimum “no dredge” and no bottom-disturbing activity (including anchoring and spudding) setback distance of 1,000 ft (305 m) from existing pipelines and all other oil- and gas-related infrastructure. The CPRA will immediately notify the Regional Supervisor, Office of Environment, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, at 504-736-2759 and dredgeinfo@boem.gov if any oil and gas infrastructure on the OCS is disturbed during the course of the Project.

BOEM reserves the right to require additional pre-dredging shallow hazards surveys to locate the position of existing pipelines and other seabed infrastructure in the wake of a severe storm event or availability of new information suggesting there may be hazards in the area.

Archaeological Resources

Onshore Prehistoric or Historic Resources

If the CPRA discovers any previously unknown historic or archeological remains while accomplishing the Project onshore, then the CPRA will notify BOEM and the COE of any findings. The CPRA will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places. All parties shall follow the “Unanticipated Discoveries Plan” and NHPA Section 106 guidelines to determine and implement future actions that may include data recovery and resource avoidance.

Offshore Prehistoric or Historic Resources

An archaeological and hazard survey was conducted at the borrow area, and these data were used to conduct an assessment of the potential for both historic and prehistoric resources within the borrow area. The survey resulted in the identification of four potential cultural resources in the vicinity of the proposed activities within and adjacent to borrow area and the conveyance corridor. These four areas (i.e., 3A Target 10, 3A Target 11, 88 Target 04, and 88 Target 06) need to be avoided by the distances noted in Table VII-1 (target table) in the “Whiskey 3A Borrow Area and Conveyance Corridor and Ship Shoal Borrow Area Cultural Resource Survey” report. The CPRA will include each of the aforementioned targets and associated buffer zones on all project plans and specifications provided to the dredge contractor.

In the event that the dredge operators discover any archaeological resource while conducting dredging operations at Ship Shoal or in the vicinity of pump-out operations, the CPRA shall require that dredge and/or pump-out operations be halted immediately within 305 m (1,000 ft) of the area of discovery. The CPRA shall then immediately report the discovery to the Regional Supervisor, Office of Environment,

Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, at 504-736-2759 and dredgeinfo@boem.gov.

If investigations determine that the resource is significant, the parties shall together determine how best to protect it.

Project Completion Report

A project completion report will be submitted by the CPRA to BOEM within 120 days following completion of the activities authorized under the lease. This report and supporting materials should be sent to the Regional Supervisor, Office of Environment, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, Mail Stop GM 633D, 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123, and to dredgeinfo@boem.gov. The report shall contain, at a minimum, the following information:

- the names and titles of the project managers overseeing the effort (for the CPRA, engineering firm [if applicable], and contractor), including contact information (telephone numbers, mailing addresses, and email addresses);
- the location and description of the project, including the final total volume of material extracted from the borrow area and the volume of material actually placed on the beach or shoreline (including a description of the volume calculation method used to determine these volumes);
- ASCII files containing the x, y, z and time stamp of the cutterhead or drag arm locations;
- a narrative describing the final, as-built features, boundaries, and acreage, including the restored beach width and length;
- a table, an example of which is illustrated below, showing the various key project cost elements;

Item	Cost Incurred as of Construction Completion (\$)
Construction	
Engineering and design	
Inspections/contract administration	
Total	

- a table, an example of which is illustrated below, showing the various items of work construction, final quantities, and monetary amounts;

Item No.	Item	Estimated Quantity	Final Quantity
1	Mobilization and demobilization		
2	Beach fill		
3	Any beach or offshore hard structure placed or removed		

- a listing of construction and construction oversight information, including the prime and subcontractor(s), contract costs, etc.;
- a list of all major equipment used to construct the project;

- a narrative discussing the construction sequences and activities, and, if applicable, any problems encountered and solutions;
- a list and description of any construction change orders issued, if applicable;
- a list and description of any safety-related issues or accidents reported during the life of the project;
- a narrative and any appropriate tables describing any environmental surveys or efforts associated with the project and costs associated with these surveys or efforts;
- a table listing significant construction dates beginning with bid opening and ending with final acceptance of the project by the CPRA;
- digital appendices containing the as-built drawings, beach-fill cross-sections, and survey data; and
- any additional pertinent comments.

Environmental and Reporting Compliance

The CPRA will designate, in advance of construction, a single point of contact responsible for facilitation of compliance with all lease requirements. The contact information will be provided to BOEM at dredgeinfo@boem.gov at least 30 days in advance of mobilization of dredging and construction equipment to the OCS.

Failure to reasonably comply with these requirements may be a basis for BOEM to refer compliance issues to BSEE.