BOEM

BUREAU OF OCEAN ENERGY MANAGEMENT

Record of Decision

Use of Outer Continental Shelf (OCS) Sand Resources for the Mississippi Coastal Improvements Program (MsCIP) Comprehensive Barrier Island Restoration Hancock, Harrison, and Jackson Counties, Mississippi

August 2016

U.S. Department of the Interior
Bureau of Ocean Energy Management

Director
Bureau of Ocean Energy Management

9.6.16
Date

Use of Outer Continental Shelf (OCS) Sand Resources for the Mississippi Coastal Improvements Program (MsCIP) Comprehensive Barrier Island Restoration Hancock, Harrison, and Jackson Counties, Mississippi

U.S. Department of the Interior
Bureau of Ocean Energy Management

I. Introduction

The U.S. Army Corps of Engineers' (COE) Mobile District has requested that the Bureau of Ocean Energy Management (BOEM) authorize the use of Outer Continental Shelf (OCS) sand resources for barrier island restoration in Hancock, Harrison, and Jackson Counties, Mississippi.

The proposed action considered by BOEM in this Record of Decision (ROD) is to enter into a Memorandum of Agreement (MOA) for the purpose of making available OCS sand for barrier island restoration in support of the Mississippi Coastal Improvements Program (MsCIP). The MOA will serve as a negotiated lease agreement for the use of up to 19.6 million cubic yards (MCY) of sand from 10 separate OCS-designated borrow areas. The agreement will be in the form of a 2-party MOA between the COE and BOEM.

Following Hurricane Katrina, the COE's Mobile District prepared the MsCIP Comprehensive Plan and Integrated Programmatic Environmental Impact Statement (EIS) (U.S. Dept. of the Army, COE, 2009). The plan was developed to support the long-term recovery of Hancock, Harrison, and Jackson Counties from the devastation caused by Hurricane Katrina and other storm events. Additionally, the plan seeks to make the coast more resilient against damage from future storms and to correct past navigational dredging and disposal activities that have altered sediment availability and transport along the barrier islands. The MsCIP Programmatic EIS was prepared under the authority of the Department of Defense Appropriations Act of 2006 (Public Law 109-148), dated December 30, 2005, and was completed in June 2009. The Report of the Chief of Engineers dated September 15, 2009, and the ROD signed by the Assistant Secretary of the Army for Civil Works, dated January 14, 2010, were submitted to Congress on January 15, 2010. The MsCIP Programmatic EIS evaluated an array of measures to address cost-effective solutions for hurricane and storm damage risk reduction, saltwater intrusion, shoreline erosion, the preservation of fish and wildlife, and other water-related issues. BOEM participated as a cooperating agency in the development and review of the EIS; however, the COE did not plan or anticipate utilizing OCS sand resources at that time.

The selected plan outlined within the 2009 MsCIP Comprehensive Plan and Integrated Programmatic EIS represented the COE's initial/conceptual plan for the barrier island restoration component. The COE's 2016 Supplemental EIS (U.S. Dept. of the Army, COE, 2016) developed and compared more specific barrier island restoration alternatives based on historical erosion impacts to the islands and the need for island restoration based upon public input. At the programmatic level, the initial analysis of alternatives discussed in the 2009 Programmatic EIS assumed that borrow areas would be available within State waters in the immediate project area. The identification and selection of specific sand sources was deferred until a more detailed sand resource inventory study could be completed.

More detailed sand resource investigations were completed as part of the 2016 Supplemental EIS. The more detailed investigations concluded that both State and OCS sand resources would be needed to provide sufficient quantities to achieve project requirements. Once the COE determined the need for OCS sand resources, the COE requested that BOEM become a cooperating agency in 2012.

The environmental impacts associated with the dredging of offshore sand resources (in both the State and the OCS) and the placement along East and West Ship Islands, and Cat Island located in Hancock, Harrison, and Jackson Counties, Mississippi, were evaluated in the 2016 Supplemental EIS, which tiers directly from the COE's 2009 Final Programmatic EIS. The COE's Mobile District served as the lead agency, with BOEM serving as a cooperating agency in the development and review of the document. The 2016 Supplemental EIS evaluates alternative sources of beach-compatible sand, including upland and offshore sources, and it considers new environmental information that has become available since the publication of the previous National Environmental Policy Act (NEPA) documents.

BOEM is serving as a cooperating agency for the Supplemental EIS because BOEM possesses both the regulatory authority and specialized expertise pertaining to the proposed action. The Supplemental EIS was developed to fulfill all Federal agencies' obligations under NEPA, and the environmental impacts of all connected actions were encompassed in the analysis. BOEM was involved in extensive reviews of preliminary documents; provided comments on the Supplemental EIS; participated in discussions on technical issues, public meetings, and consultations with other Federal agencies; and found that the Bureau's comments were addressed. BOEM independently reviewed the Supplemental EIS and finds that it adequately evaluates the environmental effects of the Bureau's proposed action and the reasonable alternatives to its action. Pursuant to 43 CFR § 46.120, BOEM is adopting the Supplemental EIS to comply with the requirements of NEPA and the Council on Environmental Quality's regulations.

II. Purpose of and Need for the Proposed Action

The need for the proposed comprehensive restoration of the barrier islands action remains the same as that described in the COE's 2009 MsCIP Programmatic EIS:

- protect and maintain the estuarine ecosystem of the Mississippi Sound and to reduce storm damage incurred along the mainland coast of Mississippi;
- preserve and protect the Mississippi barrier islands and their natural and cultural resources;
- reduce erosion and land loss of the barrier islands, especially East and West Ship Islands, and Cat Island to the west; and
- enhance the long-term sand supply to the littoral drift system, which historically has maintained the Mississippi barrier islands through natural processes.

The 2016 Supplemental EIS reflects the COE's determination that OCS sand resources would be needed to provide sufficient quantities of suitable sand to achieve project requirements. As such, the purpose of BOEM's connected action is to respond to a request from the COE to use OCS sand under the authority granted to the U.S. Department of the Interior by the Outer Continental Shelf Lands Act (OCSLA). The proposed action is necessary because the Secretary of the Interior delegated the authority granted in the OCSLA to BOEM to authorize the

use of OCS sand resources for the purpose of shore protection and beach restoration. In this instance under the proposed action, BOEM would enter into an MOA with the COE, which is the lead Federal agency for implementation of the proposed project.

III. Authority

The legal authority for the issuance of negotiated noncompetitive agreements for OCS sand and gravel is provided by the OCSLA (43 U.S.C. § 1337(k)(2)). In 1994, the OCSLA was amended to allow BOEM to convey, on a noncompetitive basis, the rights to OCS sand, gravel, or shell resources for use in a program for shore protection, beach restoration, or coastal wetlands restoration undertaken by a Federal, State, or local government agency (43 U.S.C. § 1337(k)(2)(A)(i)).

IV. Project Location and Setting

The project area includes the mainland coast of Mississippi (i.e., Hancock, Harrison, and Jackson Counties), the Mississippi Sound, the Mississippi-Alabama barrier islands, and the northern Gulf of Mexico to about 8 miles (13 kilometers) seaward of the barrier islands. A chain of sandy barrier islands located from 6 to 12 miles (10 to 19 kilometers) offshore separates the Mississippi Sound from the northern Gulf of Mexico. From east to west, the islands are Dauphin Island in Alabama and Petit Bois, Horn, East Ship, West Ship, and Cat Islands in Mississippi. In addition, Sand Island, which has been created through the deposition of dredged material within Disposal Area 10 of the Pascagoula Harbor Federal Navigation Project, lies between Petit Bois and Horn Islands.

All of Petit Bois, Horn, East Ship, and West Ship Islands, and portions of Cat Island are located within the boundaries of the Gulf Islands National Seashore's Mississippi unit under the jurisdiction of the NPS. Petit Bois and Horn Islands have also been designated by the U.S. Congress as the Gulf Islands Wilderness under the Wilderness Act. The remainder of Cat Island is currently under State and private ownership. The project area offshore of the islands includes portions of the OCS (beyond 3 miles [5 kilometers]) that are under BOEM's jurisdiction for leasing and regulating the recovery of minerals. BOEM's jurisdiction extends to the subsoil and seabed of all submerged lands seaward of State-owned waters to the limits of the OCS.

V. Alternatives Including the Proposed Action

Alternatives considered in the Supplemental EIS were tiered from the 2009 MsCIP Programmatic EIS; thus, alternatives that were previously evaluated and rejected were not analyzed. The action alternatives considered four separate borrow options and site-specific options for implementing the barrier island restoration plan, and numerous sand placement alternatives.

The 2009 Programmatic EIS assumed that borrow areas would be available within State waters in the immediate area of each project alternative. More detailed cost and environmental evaluations subsequently concluded that OCS sand resources would be needed to provide sufficient quantities to meet project requirements. Geological and geophysical investigations were conducted as part of the Supplemental EIS to further evaluate potential sources of sand. To identify specific potential borrow sites for barrier island restoration, potential locations were evaluated based on the following criteria:

- sufficient sand quantity and compatibility with placement areas in terms of grain size, shape, color, and other physical characteristics;

- location outside of the active littoral transport system;
- no significant adverse wave focusing or negative impact to the transport system following removal;
- cost effectiveness to obtain and transport sand to the placement site; and
- compatibility with NPS management policies and objectives.

Four alternative borrow site combinations (referred to as borrow site options within the Supplemental EIS) were considered in the Supplemental EIS. The COE's selection of the preferred alternative was based on the analysis of potential impacts, benefits, and cost. Borrow Site Option 4 is the selected COE alternative. This alternative would involve the use of sand from 18 specific borrow locations within the following 4 geographic areas located in the State waters of Mississippi and Alabama and 1 on the OCS. The total volume of available sand, before factoring construction losses and inefficiencies, is identified for each geographic area:

(1) Ship Island (2.7 MCY);

(2) Horn Island Pass (4.9 MCY);

(3) Petit Bois Pass–Alabama (19.8 MCY);

(4) Petit Bois Pass-Mississippi (2.0 MCY); and

(5) **Petit Bois Pass–Outer Continental Shelf (19.6 MCY)**.

Of these five geographic areas evaluated, a total of 19.6 MCY of sand has been identified within the Petit Bois Pass OCS area. Within this geographic area, 10 specific OCS borrow sites were identified, i.e., Petit Bois Pass-OCS-West 1 and 3-6, and Petit Bois Pass-OCS-East 1-5. Two of these OCS borrow sites extend into State waters (i.e., OCS-West 1 and 3). The COE has requested a lease for the total available OCS sand volume (19.6 MCY) to cover project contingencies and to allow the selected contractor the option to implement more effective and efficient dredging operations. BOEM expects that sand from borrow sites would be dredged with a hopper dredge and/or hydraulic cutterhead dredge, loaded into scows, hauled to the placement vicinity, and then pumped directly onto the site.

BOEM has considered two alternatives in response to the COE's request: (1) the Proposed Action and (2) No Action. The Proposed Action is the preferred alternative of BOEM after evaluation of the environmental impacts and implementation of mitigation measures, as described in the Supplemental EIS. The proposed action is limited to entering into an MOA with the COE to use OCS sand from the above-noted OCS borrow sites.

BOEM's Proposed Action – Enter into a Memorandum of Agreement with the COE

BOEM would negotiate an agreement with the COE that would allow use of up to 19.6 MCY of OCS sand for placement at two island locations. The agreement will be in the form of a 2-party MOA between the COE and BOEM. Subsequent restoration projects using OCS sand would require separate negotiated agreements, and updated environmental analyses may be needed. The COE has committed to implementing the mitigation measures and monitoring requirements identified in a Monitoring and Adaptive Management (MAM) Plan, which was approved by the FWS and NMFS. All of BOEM's specific mitigation, monitoring, and reporting requirements that are outlined within the MAM Plan will also be included as stipulations in the MOA.

BOEM's No Action Alternative – Deny Request for Use of OCS Sand

Under BOEM's No Action alternative, an agreement for the use of OCS sand would not be negotiated and the project could be jeopardized due to insufficient volumes of sand needed to support the project. If the project is not carried out, continued barrier shoreline and estuarine wetland habitat deterioration would continue, and the likelihood and frequency of property and storm damage would increase. Additionally, negative impacts to tourism and the local economy would be expected because of a reduced and eroded shoreline.

The COE could potentially also obtain sand from another distant OCS area, but such an area and viable source of compatible sand (including any other potential source of OCS sand) has not been identified or evaluated for environmental impacts. Project economics could be severely impacted if the transport distance and resultant construction costs are increased to obtain sand from alternative sources. The COE evaluated the most reasonable and likely sand sources during the NEPA process.

VI. Environmental Consequences

Implementation of the selected alternative to restore the Mississippi barrier island system would result in both negative and beneficial impacts to placement and borrow areas and to the users of these areas. These impacts would include the permanent loss of open water habitat at Camille Cut, construction-related disruptions to birds and other wildlife on Ship and Cat Islands, and construction-related disruptions to public use of borrow and placement areas. However, the overall significant long-term, system-wide benefits to ecosystems, as well as economic benefits associated with damages and economic losses avoided and regional economic benefits, would outweigh the short-term negative impacts. Most notably, the restoration of the islands, with critical economic, recreational, environmental, and aesthetic benefits, would help maintain and sustain the Mississippi Sound and coastal mainland. The MsCIP Programmatic EIS estimated $18.5 million in potential annual benefits from losses avoided through the restoration of the barrier islands. In addition, restoration would provide additional nesting habitat for threatened and endangered sea turtles and over-wintering critical habitat for the piping plover and red knot, as well as habitat for neo-tropical migrants and waterfowl. Closure of Camille Cut would help to maintain the salinity regime in the Sound and the habitat conditions for oysters and numerous estuarine-dependent fish and crustacean species that are essential for commercial and recreational fishing. In addition, the barrier island restoration would contribute to the continued protection of the significant historical and cultural sites within the project area. The anticipated reduction in storm surges would also help to protect unique coastal mainland habitats, wetlands, and special aquatic sites.

Proposed Action

The barrier island restoration is expected to have a beneficial effect in terms of reducing erosion, providing storm damage protection, increasing recreational opportunity, and creating sea-turtle nesting and shorebird friendly habitat. A short-term increase in turbidity during the placement is expected, potentially resulting in a short-term effect on beach and surf zone fauna. To minimize turbidity and nearshore sedimentation, a turbidity barrier will be utilized during placement operations. Air quality and noise effects would be highly localized and short-term. Upland noise levels will be monitored to ensure they remain below accepted levels. Temporary noise disturbances from construction machinery could adversely affect beach nesting and foraging birds. There also could be adverse effects from a short-term reduction in available food sources during and after the placement of sand on the shoreline. Over the long-term, there would be newly created sea turtle and shorebird nesting habitat.

Dredging the offshore shoals will change shoal topography and could adversely affect benthic communities, fish habitat, seabird foraging areas; however, impacts are not expected to be significant because of the abundance of shoals or comparable habitat on a regional scale and because of the implementation of specific mitigation measures to reduce impacts. The MAM Plan, which was approved by the FWS and NMFS, specifies specific mitigations to minimize impacts during project implementation. No dredging will occur in the vicinity of sensitive, hard bottom habitat. The COE is implementing several measures to minimize and compensate for any impacts to nearshore from fill and pipeline conveyance disturbance, as discussed in the "Mitigation, Monitoring, and Reporting" section below. Adverse effects are expected to occur to bottom-dwelling communities within the dredging area and at the beach fill placement area. However, a rapid recovery would be expected after the project is completed. As noted in the Section 5.4.3.1 of the Supplemental EIS, "Because of the short-term nature of the recovery, impacts would be negligible, and therefore not significant." Adverse effects on essential fish habitat (EFH) may occur in the dredge area and fill placement area due to the removal of benthic communities. An impact to fisheries could also occur due to a temporary increase in turbidity in the area of dredging and sand placement.

Potential adverse impacts on marine mammals may occur due to physical disturbance of habitat, vessel strikes, and increased noise from vessels. With the implementation of an observer program, avoidance requirements, and speed restrictions, impacts will be minimized to the maximum extent possible. Marine mammals may show some avoidance behavior due to underwater noise.

Adverse impacts, including sublethal and lethal injury, to protected sea turtles could occur during dredging. The U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) have concurred that the proposed action will not jeopardize the continued existence of turtle species or modify critical habitat at this time. Effects will be mitigated using draghead deflectors and associated operating conditions, and observers will be on board to monitor for and document dredge-turtle interactions. Any potential adverse impacts on right, fin, humpback, and whales or manatees, which are threatened or endangered species, will also be mitigated using observers and by following speed restrictions.

Temporary adverse impacts on shorebirds (including temporary sublethal effects to endangered piping plovers and red knot), seabirds and migratory birds known to breed, nest, and forage along the shoreline are anticipated. To minimize impacts, the COE developed a MAM Plan, which was approved by the FWS and NMFS. The COE will monitor nesting during construction activities. Potential impacts will be offset over the long term, as an increase in potential habitat is expected because of the increase in shoreline area.

Short-term disturbance to the recreational use of the project area is expected, but longer-term improvements outweigh that disturbance. There could be some temporary minor adverse effects on commercial and recreational fishing due to dredge entrainment, sedimentation, and disruption of fish and benthos.

No Action

Under BOEM's No Action alternative, the use of sand from the OCS would not be authorized. Under BOEM's No Action alternative, the COE could choose to use an upland borrow area or could choose from upland disposal sites in the Lower Tombigbee River, which were addressed in the Supplemental EIS. The shoreline area effects are comparable to those described above. Effects associated with transporting upland sand to the project area would be greater, such as

increased traffic and associated air emissions and noise levels owing to the use of heavy trucks and associated vessel traffic. Additionally, the fill material from these aforementioned sites would not meet the color criteria and, as such, would not be compatible with placement areas in terms of grain size, shape, color, and other physical characteristics. If the COE chooses another borrow area for fill, including any other distant area on the OCS not already considered, the area would need to be thoroughly reviewed and analyzed for environmental impacts. Under BOEM's No Action alternative, the COE would likely choose not to, or would otherwise be unable to, undertake the Project at the same scale because of constraints with project costs or availability of beach compatible sand. Without a beach fill, the environmental impacts of dredging would be eliminated. Other disturbance effects could occur in the vicinity of alternative upland borrow areas. Shorter-term adverse and longer-term beneficial impacts along the shoreline from beach fill would be reduced or eliminated. The remaining impacts would result from needed emergency repairs to the beach using upland fill sources. The barrier islands would continue to retreat, resulting in a notable decrease in storm damage protection, the continued deterioration of the quality of nesting habitat along the barrier island, as well as loss of public/recreational use of the shoreline.

VII. Consultation and Coordination

The COE served the role of the lead agency in environmental coordination and consultations with Federal, State, and local agencies. BOEM was an active participant in monthly interagency meetings, and all resource agencies were notified of BOEM's involvement. Consultations and coordination with the FWS and NMFS were completed under the Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act regarding potential EFH impacts. The COE's Biological Assessment and the FWS/NMFS Biological Opinions were revised and updated for the Final Supplemental EIS to evaluate potential protected species and EFH impacts at the OCS borrow locations. The FWS and NMFS issued their final updated Biological Opinions in September 2015. The COE has noted that it concurred with and will implement the mitigation terms, conditions, and measures contained within the Biological Opinions to minimize impacts. Additionally, the COE has completed all required consultation/coordination with the States of Alabama and Mississippi, which includes water quality certifications, coastal zone consistency determinations, and Section 106 of the National Historic Preservation Act consultations. Additional coordination and consultations covering the Archaeological Resources Protection Act, Abandoned Shipwreck Act, and Sunken Military Craft Act between the COE's Mobile District, the State Historic Preservation Offices of Mississippi and Alabama, the NPS, and interested federally recognized Indian Tribes were completed. Completed cultural resources surveys identified no significant or potentially significant cultural resources in all potential borrow areas and/or access channel areas; thus, no effect determinations were made in these areas. Both the Alabama and Mississippi State Historic Preservation Offices concurred with the COE determinations. The NPS has also been a cooperating agency in the development and review of both supporting EISs because of their decision to provide an access permit for placement of sand within the Gulf Islands National Seashore.

VIII. Mitigation, Monitoring, and Reporting

BOEM is adopting the mitigation, monitoring, and reporting requirements that were developed through interagency consultations and have been deemed practicable by the COE and BOEM to avoid, minimize, reduce, or eliminate adverse environmental effects that could result from the proposed activities. The mitigation, monitoring, and reporting requirements are specifically addressed in the MAM Plan, which was developed during the preparation of the Supplemental

EIS through consultation, coordination, and reviews by Federal and State governmental agencies, and on the basis of Bureau experience with similar beach restoration projects. BOEM's mitigation, monitoring, and reporting requirements are identified and included within the MAM Plan. The MAM Plan also summarizes and includes mitigation and monitoring to be implemented by other agencies under other authorities. The COE, as the lead Federal agency, will be responsible for implementing and enforcing all mitigation and monitoring commitments noted in the Final Supplemental EIS and MAM Plan. The COE, in its Supplemental EIS and ROD, is committed to implementing these mitigation measures and monitoring requirements. The BOEM-specific requirements identified in the MAM Plan, as they apply to dredging and construction operations, will be specified within the MOA, and the COE will be required to report to BOEM on the implementation and effectiveness of the mitigation. The MAM Plan will be a living document that will allow the COE and BOEM to adapt to changing conditions to develop and/or revise mitigation measures for subsequent actions.

BOEM Requirements

The MOA will stipulate that the COE is the lead Federal agency on behalf of the Federal Government to ensure that activities comply with applicable environmental laws, including, but not limited to, the Endangered Species Act, Magnuson-Stevens Fishery Management and Conservation Act, Migratory Bird Treaty Act, National Historic Preservation Act, and Coastal Zone Management Act. The COE has assumed the role of lead Federal agency for Endangered Species Act Section 7 consultation concerning threatened and endangered species under the purview of the FWS and NMFS. Likewise, the COE has assumed the role of lead Federal agency for complying with Section 305 of the Magnuson-Stevens Fishery Management and Conservation Act, Section 106 of the National Historic Preservation Act, and Section 307 of the Coastal Zone Management Act. The COE will instruct the contractor(s) to implement the mitigation terms, conditions, and measures required by the FWS and NMFS, pursuant to applicable Federal and State laws and regulations. The required mitigation terms, conditions, and measures are reflected in the Biological Opinions, Conservation Recommendations, and State Coastal Permits/Coastal Zone Management requirements. Copies of all relevant correspondence, monitoring, and reporting related to the above resource agencies concerning these requirements have been provided to BOEM.

Specific mitigation, monitoring, and reporting required by BOEM will be incorporated into the MOA. Mitigation measures were identified to reduce potential effects to habitat and sand resources in reference to construction areas, borrow areas, water quality, and cultural resources. In addition to BOEM's requirements, all of the FWS, NMFS, and State requirements are incorporated into the MsCIP Monitoring and Adaptive Management Plan.

Use of Borrow Area

BOEM will require the COE to continuously record dredge location, draghead depth, and dredge activity data and to transmit the data to BOEM on a biweekly basis. Dredge track lines and draghead depths will be provided in a format so that BOEM can ensure that the activity is limited to the approved area and dredging cut depths. The COE will be required to undertake pre- and post-bathymetric surveys to document the nature of seafloor changes in the borrow areas. BOEM also recommends that the COE perform additional bathymetric surveys 1 year and 3 years after to document morphologic changes within the borrow area.

The profile and volume of the shoals will be reduced by dredging. Based on the best available science sponsored by BOEM, the COE has developed a dredging plan designed to minimize adverse effects to the extent practicable. Dredging will occur preferentially in naturally accreting

areas, and dredging will be avoided in erosional areas of the shoal to the extent practicable. Dredging will be performed so that the dredges excavate material using relatively shallow, uniform passes with a maximum overall cut depth of 2-3 meters (6-10 feet). The COE will use the contour method to the maximum extent possible to maintain the relative profile and shape of the sand ridge. Anchoring, spudding, or other bottom-disturbing activity is otherwise prohibited outside the approved borrow area. The COE must immediately notify BOEM if dredging occurs outside of the approved borrow area.

Water Quality

The COE will be required to prepare and implement a marine pollution control plan to address and ensure proper treatment of waste and prevent disposal of debris. Additionally, the COE has made a commitment to monitor water quality within the project area as spelled out in the MAM Plan. The MAM Plan incorporates all of the conditions contained within both the Alabama and Mississippi water quality certifications that were issued in April 2016.

Cultural Resources

No cultural resources have been identified in or within the immediate vicinity of the borrow areas. If an unanticipated discovery of archaeological resources occurs on the OCS, the dredge would immediately halt operations within 305 meters (1,000 feet) of the area of the discovery. The COE must report the discovery to BOEM. If investigations determine that the resource is significant, the parties shall together determine how best to protect it.

Additional Notification and Reporting

Prior to construction, the COE will be required to submit a final construction plan and contract specifications, including design drawings, to BOEM. During construction, the COE or their agents, at the reasonable request of BOEM, will allow BOEM access at the site of any operation subject to safety and environmental regulations and shall provide BOEM any documents and records that are pertinent to occupational or public health, safety, or environmental protection as may be requested. The COE will notify mariners of construction activities through a Local Notice to Mariners, report all pollution incidents should any accidentally occur, and report findings of ordnance or munitions on the OCS. Upon completion of construction operations, the COE will prepare and submit to BOEM a detailed project completion report, describing all phases of construction, including duration, equipment use, and project costs. The completion report will be accompanied by as-built drawings, dredged and placed volume calculations, pre- and post-bathymetric comparison, and all environmental reports.

Mitigation and Monitoring Adopted by the COE

The COE adopted all mitigation and monitoring components identified in the Final Supplemental EIS and associated Biological Opinions. The COE will implement the mitigation measures and monitoring requirements identified in the Supplemental EIS through the implementation of its MAM Plan. All of the FWS, NMFS, and State requirements are incorporated into the MAM Plan. The MAM Plan was reviewed and approved by the FWS and NPS, and the implementation of the plan will be overseen by several multidiscipline/interagency teams.

BOEM has adopted all practical means to avoid or minimize environmental harm from its proposed action. BOEM is not responsible for the implementation or enforcement of mitigation or monitoring requirements directly required under other Federal or State authorities. Likewise, BOEM does not have jurisdiction over the nearshore pump-out and submerged pipeline conveyance, or beach fill placement.

IX. Environmentally Preferable Alternative

The environmentally preferable alternative from the perspective of this Bureau is BOEM's No Action alternative. Negative, direct environmental impacts would generally be less under the No Action alternative since no OCS sand would be used and dredging would not occur on the OCS. Therefore, no dredging-related changes to the physical, biological, and cultural resources would be expected. However, if the project is not constructed because of BOEM's decision not to authorize access to OCS sand resources, the infrastructure and coastal environment would continue to be at risk from storm damage and coastal erosion. The availability and quality of nesting habitat across the barrier islands would likewise be expected to continue to deteriorate. The environmentally preferable alternative would not meet the purpose and need identified in the Supplemental EIS and, after consideration of the beneficial and adverse environmental consequences of both alternatives and the available mitigation measures to be implemented under the COE's proposed action, BOEM has decided that the proposed action, entering into an MOA with the COE, is the preferred option in this ROD.

X. BOEM Decision

It is my decision to enter into an MOA with the COE to use OCS sand in this project, implementing the proposed action. BOEM finds that the potential environmental effects of the proposed action are generally reversible over the long term because the effects will be minor to moderate in intensity, localized, and short-lived. Potential longer-term beneficial effects include improved storm damage protection, improved recreational opportunity, and increased nesting and foraging habitat for protected sea turtles and migratory birds, especially with the sea turtle friendly beach template and nearshore mitigation plan. The COE has selected the same alternative, in part, because the estimated long-term, system-wide benefits to the ecosystem outweigh the anticipated negative impacts. The selected shoreline/barrier island restoration alternative, which includes dredge material from 10 proposed OCS offshore borrow areas, would provide a sufficient amount of beach-compatible sand at a more economical cost and with less transportation complications than beach sand from an upland borrow source or other offshore source. A suite of mitigation and reporting requirements will be incorporated into the MOA to avoid, minimize, and/or reduce and track any foreseeable adverse impacts. The COE is committed to implementing a substantial suite of mitigation measures and monitoring requirements, including those incorporated in the MAM. This action is taken with the understanding that any proposed use of OCS sand in future beach nourishment activities by the COE will require a new negotiated agreement and an updated environmental analysis as warranted.

XI. Reference

U.S. Dept. of the Army. Corps of Engineers. 2016. Mississippi Coastal Improvement Program (MsCIP) Comprehensive Barrier Island Restoration: Hancock, Harrison, and Jackson Counties, Mississippi – Final Supplemental Environmental Impact Statement. U.S. Dept. of the Army, Mobile District, Mobile, AL.

U.S. Dept. of the Army. Corps of Engineers. 2009. Mississippi Coastal Improvements Program (MsCIP): Hancock, Harrison, and Jackson Counties, Mississippi—comprehensive plan and integrated programmatic environmental impact statement. U.S. Dept. of the Army, Mobile District, Mobile, AL.