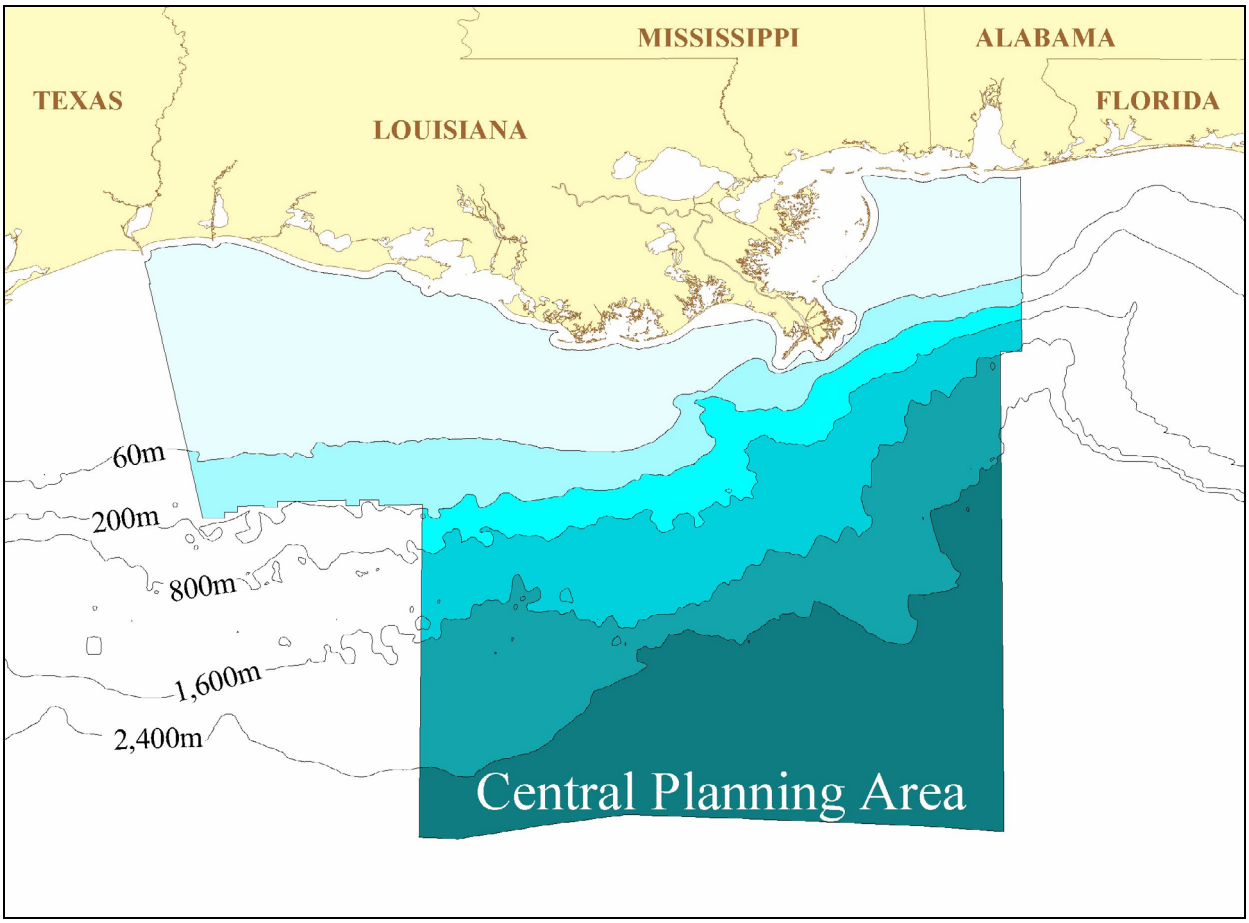
OCS EIS/EA
MMS 2003-066

Environmental Assessment

Proposed OCS Lease Sale 190, Central Gulf of Mexico



MMS
U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

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FINDING OF NO NEW SIGNIFICANT IMPACT

The Minerals Management Service (MMS) has prepared an environmental assessment (EA) for proposed Lease Sale 190 in the Central Planning Area (CPA) of the Gulf of Mexico Outer Continental Shelf (OCS) to determine whether MMS can make a Finding of No New Significant Impact or should prepare a supplemental U.S. Environmental Impact Statement (EIS). In November 2002, MMS filed with the Environmental Protection Agency a multisale Central and Western Gulf of Mexico (GOM) Final EIS covering CPA Lease Sales 185, 190, 194, 198, and 201; and Western Planning Area (WPA) Lease Sales 187, 192, 196, and 200 in the GOM. Because the multisale EIS examined the environmental impacts of a sale similar in size, nature, and potential level of development as Lease Sale 190, this EA tiers off the multisale EIS and incorporates much of the material by reference. It also reexamines the potential environmental effects of the proposed action and alternatives based on any new information regarding potential impacts or issues that were not available at the time the multisale EIS was prepared.

The information and analyses presented in the multisale EIS were reviewed. Four topics were determined to have new data or information that should be reevaluated and added to the EA: protective measures for protected species; estimated population numbers of cetaceans in the GOM; designation of critical habitat for the Gulf sturgeon; and a revised oil-spill probability for the snowy plover. The new information is presented in the EA. The EA also analyzes whether this new information indicates that there are likely to be significant new impacts that were not addressed in the Central and Western GOM multisale EIS.

Based on the analyses in the EA, no new significant impacts were identified for proposed Lease Sale 190 that were not already assessed in the multisale EIS, nor is it necessary to change the conclusions of the kinds, levels, or locations of impacts described in that document. Therefore, MMS has determined that a supplemental EIS is not required and is issuing this Finding of No New Significant Impacts.

Supporting Documents

EA for Proposed OCS Lease Sale 190, Central Gulf of Mexico (attached).

Final EIS for CPA Lease Sales 185, 190, 194, 198, and 201; and WPA Lease Sales 187, 192, 196, and 200 (available upon request).

Director

OCT 2 0 2003
Date

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1. OBJECTIVES OF THE ENVIRONMENTAL ASSESSMENT

This environmental assessment (EA), which tiers off the Final Environmental Impact Statement (EIS) for Central Planning Area (CPA) Lease Sales 185, 190, 194, 198, and 201; and Western Planning Area (WPA) Lease Sales 187, 192, 196, and 200 (USDOI, MMS, 2002a) (multisale EIS), has been prepared to aid in the determination of whether or not newly available information indicates that the proposed sale would result in new significant impacts not addressed in the multisale EIS. This EA incorporates by reference all of the relevant material in the multisale EIS. The multisale EIS can be obtained from the Minerals Management Service, Gulf of Mexico OCS Region, Attention: Public Information Office (MS 5034), 1201 Elmwood Park Boulevard, Room 114, New Orleans, Louisiana 70123-2394 (1-800-200-GULF) or viewed on the Minerals Management Service (MMS) website at http://www.gomr.mms.gov. A list of libraries that have copies of the multisale EIS and their locations is also available on the MMS website. This EA also reexamines the potential environmental effects of the proposed action and alternatives based on any new information regarding potential impacts and issues not available at the time the MMS prepared the multisale EIS in November 2002.

Federal regulations allow for an agency to analyze several similar proposals in one EIS (40 CFR 1502.4). Since the CPA sale proposal and projected activities are very similar, if not almost identical each year, MMS prepared a single EIS for all five CPA lease sales in the 5-Year Program (USDOI, MMS, 2002b). The multisale approach focuses the National Environmental Policy Act (NEPA)/EIS process on any differences between the proposed lease sales and on any new information and issues. Although the multisale EIS addressed five proposed CPA sale actions, the Secretary of the Interior (Secretary) makes only one CPA lease sale decision each year.

2. PURPOSE OF AND NEED FOR THE PROPOSED ACTION

Purpose of the Proposed Action

The purpose of this proposed action is to make available for leasing those areas that may contain economically recoverable oil and gas resources in the CPA of the GOM for energy use in the United States (U.S.). The proposed lease sale would provide qualified bidders the opportunity to bid upon and lease acreage in the GOM Outer Continental Shelf (OCS) in order to explore, develop, and produce oil and natural gas.

Need for the Proposed Action

The Central GOM constitutes one of the world's major oil- and gas-producing areas and has proved to be a steady and reliable source of crude oil and natural gas for more than 50 years. Oil from the GOM can help reduce the Nation's need for oil imports and reduce the environmental risks associated with oil tankering. Natural gas is generally considered to be an environmentally preferable alternative to oil, both in terms of the production and consumption.

3. ALTERNATIVES INCLUDING THE PROPOSED ACTION

3.1. ALTERNATIVE A — PROPOSED ACTION

Alternative A - The Proposed Action: This alternative would offer for lease all unleased blocks within the CPA for oil and gas operations, with the following exceptions: Lund South (Area NG16-07) Blocks 172, 173, 213-217, 252-261, 296-305, and 349; Amery Terrace (Area NG15-09) Blocks 280, 281, 318-320, and 355-359; and portions of Amery Terrace (Area NG15-09) Blocks 235-238, 273-279, and 309-359, which are deferred from the proposed action under the "Treaty Between the Government of the United States of America and the Government of the United Mexican States on the Delimitation Of The Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles." The CPA encompasses about 47.8 million acres (ac) in water depths ranging from 4 to 3,400 meters (m) (**Figure 1**). The estimated amount of resources projected to be developed as a result of the proposed lease sale is 0.276-0.654 billion barrels of oil (BBO) and 1.590-3.300 trillion cubic feet (tcf) of gas.

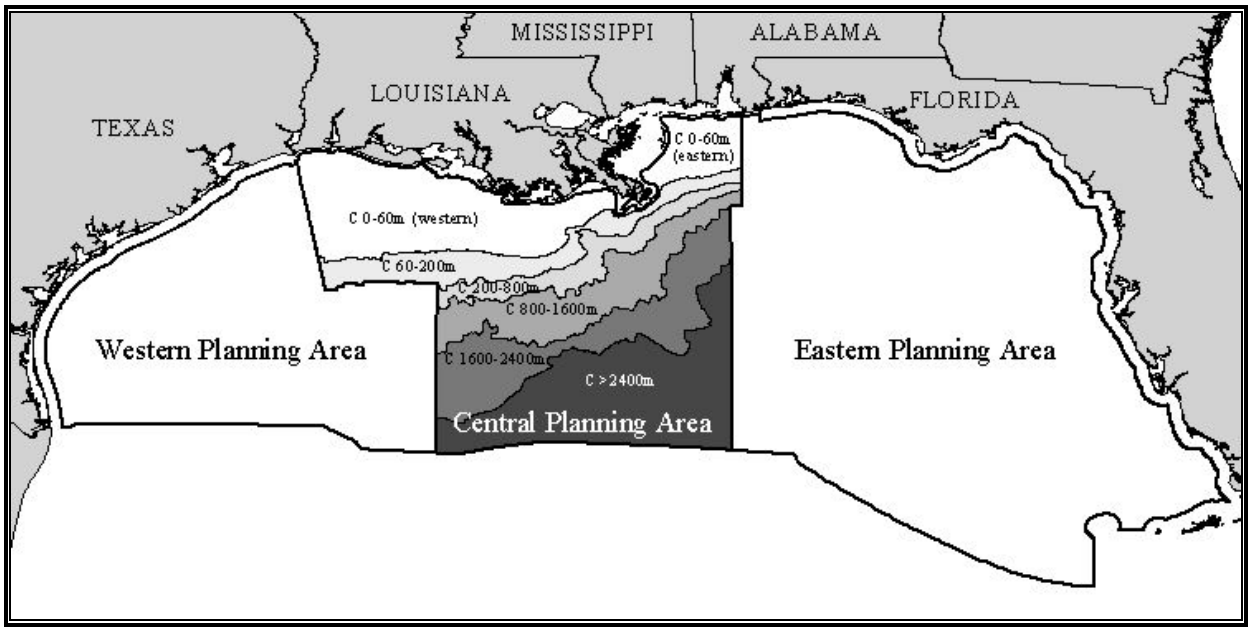

Figure 1. GOM OCS Planning Areas and CPA Offshore Subareas.

3.2. ALTERNATIVES TO THE PROPOSED ACTION

Alternative B – The Proposed Action Excluding the Unleased Blocks Near Biologically Sensitive Topographic Features: This alternative would offer for lease all unleased blocks in the CPA, as described for the proposed action, with the exception of any unleased blocks within the 167 blocks subject to the Topographic Features Stipulation.

Alternative C – The Proposed Action Excluding the Unleased Blocks Within 15 Miles of the Baldwin County, Alabama, Coast: This alternative would offer for lease all unleased blocks in the CPA, as described for the proposed action, with the exception of any unleased blocks within 15 mi of the Baldwin County, Alabama, coast.

Alternative D – No Action: This alternative is equivalent to cancellation of the proposed lease sale. The opportunity for development of the estimated oil and gas resources that could have resulted from the proposed action would be precluded or postponed.

3.3. MITIGATION MEASURES

The proposed action and all subsequent activities resulting from it are subject to the existing regulations and proposed lease stipulations designed to reduce environmental risks. Five stipulations (Topographic Features; Live Bottom (Pinnacle Trend); Military Areas; Blocks South of Baldwin County, Alabama; and Law of the Sea Convention Royalty Payment Stipulations) are included in the multisale EIS. **Chapter 2.3.1.3** of the multisale EIS discusses the effectiveness of these stipulations. Two additional stipulations, Protected Species Stipulation and Below Seabed Operations on Mississippi Canyon Block 474 Stipulation, were adopted for Lease Sale 185 in March 2003, which was the first CPA lease sale addressed in the multisale EIS. In June 2003, MMS issued three Notices to Lessees and Operators (NTL) in order to reduce any potential impacts to protected species. The Protected Species Stipulation and the NTL's were developed in consultation with the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service (FWS). The requirements of the NTL's apply to all existing and future oil and gas operations on the GOM OCS. These mitigation measures were not part of the multisale EIS because they were not in place at the time the EIS was completed. These mitigation measures would further reduce the potential for any impacts related to the proposed action that were described in the EIS.

3.3.1. Protected Species Stipulation

The Protected Species Stipulation is designed to minimize or avoid potential adverse impacts to federally protected species (e.g., sea turtles, marine mammals, Gulf sturgeon, and other listed species). To reduce the potential taking of federally protected species:

1. The MMS will condition all permits issued to lessees and their operators to require them to collect and remove flotsam resulting from activities related to exploration, development, and production of this lease.
2. The MMS will condition all permits issued to lessees and their operators to require them to post signs in prominent places on all vessels and platforms used as a result of activities related to exploration, development, and production of this lease detailing the reasons (legal and ecological) why the release of debris must be eliminated.
3. The MMS will require that vessel operators and crews watch for marine mammals and sea turtles, reduce vessel speed to 10 knots (kn) or less when assemblages of cetaceans are observed and maintain a distance of 90 m or greater from whales and a distance of 45 m or greater from small cetaceans and sea turtles.
4. The MMS will require that all seismic surveys employ mandatory mitigation measures to include the use of a 500-m impact zone based on the appropriate water depth, visual observers, and ramp-up procedures. Seismic operations must immediately cease when a sperm whale is detected within the 500-m impact zone. Ramp-up procedures and seismic surveys may be initiated only during daylight.
5. The MMS will require lessees and operators to instruct offshore personnel to immediately report all sightings and locations of injured or dead endangered and threatened species (e.g., sea turtles and whales) to MMS. If oil and gas industry activity is responsible for the injured or dead animals (e.g., because of a vessel strike), MMS shall require the responsible parties to assist the respective salvage and stranding network as appropriate.
6. The MMS will require oil-spill contingency planning to identify important habitats, including designated critical habitat, used by listed species (e.g., sea turtle nesting beaches, and piping plover critical habitat) and will require the strategic placement of spill cleanup equipment to be used only by personnel trained in less intrusive cleanup techniques on beach and bay shores.

The analyses of potential proposed action impacts to marine mammals, sea turtles, and Gulf sturgeon are presented in **Chapter 4.2** of this EA.

3.3.2. Below Seabed Operations on Mississippi Canyon Block 474 Stipulation

Mississippi Canyon Block 474 is the host location of the planned NaKika Project. The Below Seabed Operations on Mississippi Canyon Block 474 Stipulation states no activity including, but not limited to, structures, drilling rigs, pipelines, and/or anchoring will be located on the seabed or in the water column above or within any portion of this lease. All exploration, development, and production activities or operations must take place from outside the lease by the use of directional drilling or other techniques. This requirement would reduce potential conflicts between future lease activities on this block and the structures and activities associated with the NaKika Project (in which the block serves as a host location for development of approximately 10 subsea wells on nearby blocks). **Figure 2** shows the location of Mississippi Canyon Block 474 within the CPA. With the implementation of this stipulation, oil and gas resource projections and associated activities would still remain within the range of those projected by MMS in the multisale EIS for a "typical CPA lease sale." However, bottom disturbances would not occur from exploration, development, and production activities or operations within Mississippi Canyon Block 474.

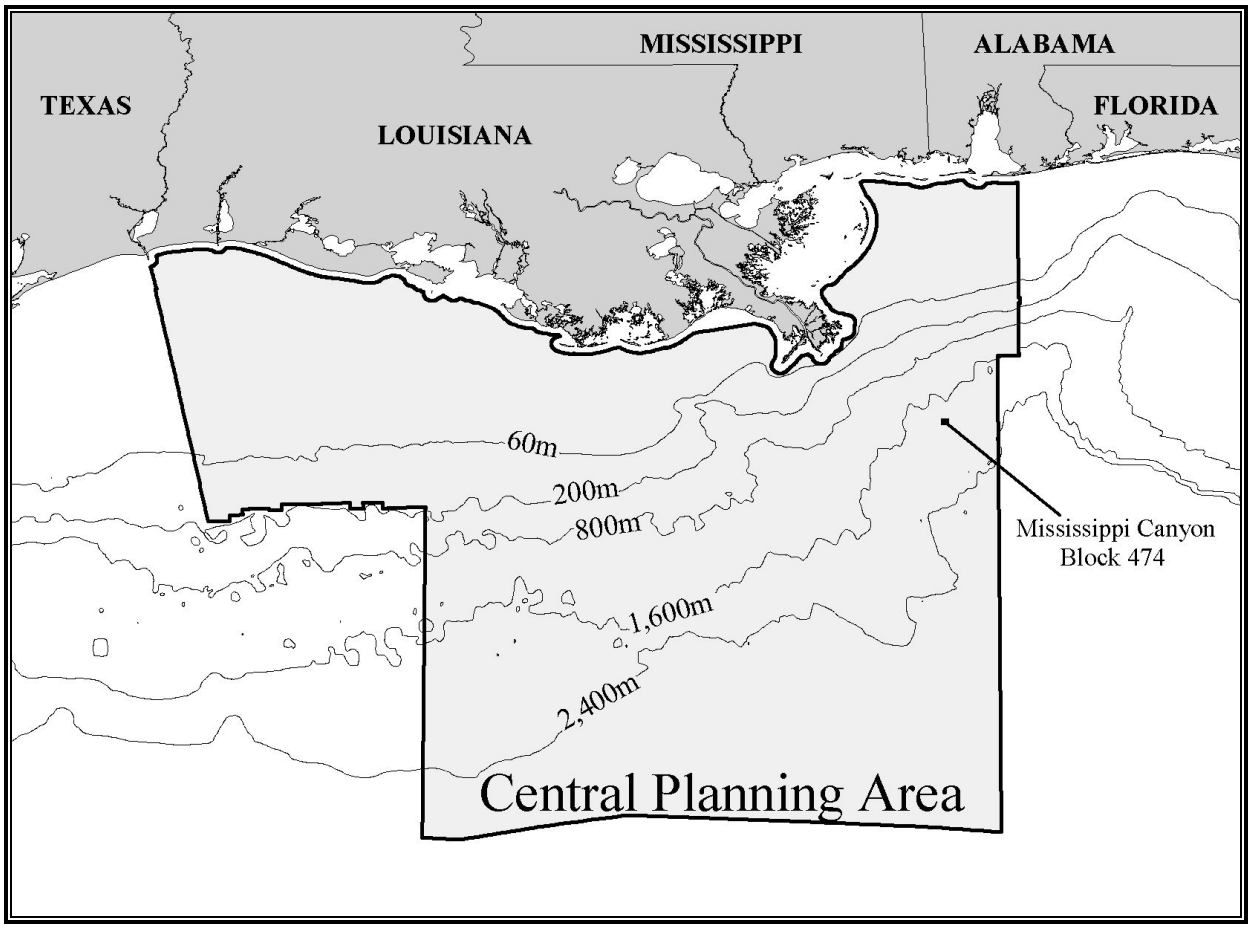

Figure 2. Location of Mississippi Canyon Block 474 within the CPA.

3.3.3. Notices to Lessees and Operators

Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program (NTL 2003-G08)

The Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program NTL (NTL 2003-G08) details information on ramp-up procedures, observation methods, and reporting requirements to be followed by the seismic industry during certain geological and geophysical (G&G) survey operations. The conditions prescribed under this NTL aid in reducing the chance of harassment to nearby marine mammals. The report data received from the companies will be used to increase the knowledge base on species habitat.

This NTL applies to all seismic operations in water depths greater than 200 m and requires the use of soft start or ramp-up and visual observers as required in the previous NTL. This NTL includes requirements for

1. seismic vessels to have at least two visual observers on watch during all daylight hours when geophysical operations are being conducted;
2. visual observers to have completed a training course;
3. no additional duties to be assigned to visual observers during their watch;
4. limiting watch and duty hours for observers;

5. elements that must be included in the training course;
6. methods to be employed for visual observations;
7. "all clear" prior to ramp-up;
8. shutdown of seismic airguns when sperm whales are within 500 m of the sound source or sound source array;
9. restart of survey after shutdown; and
10. reporting required information, including types of reports and submission of reports to MMS.

This NTL contains special provisions for borehole, or vertical seismic profiling, operations. This NTL also contains a special mitigation exception for seismic vessels that employ experimental passive acoustic monitoring.

Vessel Strike Avoidance and Injured/Dead Protected Species Reporting (NTL 2003-G10)

The Vessel Strike Avoidance and Injured/Dead Protected Species Reporting NTL (NTL 2003-G10) provides the following guidelines to minimize the risk of vessel strikes to protected species and report observations of injured or dead protected species.

Protected Species Identification Training

Vessel crews are to use a GOM reference guide to identify marine mammals and sea turtles.

Vessel Strike Avoidance

The following are guidelines are included:

1. Vessel operators and crews should maintain a vigilant watch for marine mammals and sea turtles and slow down or stop their vessels to avoid striking protected species.
2. When a whale is sighted, a distance of 90 m or greater from the whale should be maintained.
3. When sea turtles or small cetaceans are sighted, there should be an attempt to maintain a distance of 45 m or greater whenever possible.
4. When cetaceans are sighted while a vessel is underway, there should be an attempt to remain parallel to the animals' course. Excessive speed or abrupt changes in direction until the cetaceans have left the area should be avoided.
5. Vessel speed should be reduced to 10 kn or less when pods or large assemblages of cetaceans are observed near an underway vessel. Cetaceans at the surface may indicate the presence of submerged animals near the vessel.
6. Whales may surface in unpredictable locations or approach slowly moving vessels. When animals are sighted in the vessel's path or in close proximity to a moving vessel, speed should be reduced and the engine shifted to neutral. Engines should not be engaged until the animals are clear of the area.

Injured/Dead Protected Species Reporting

Vessel crews must report sightings of any injured or dead protected species (marine mammals and sea turtles) immediately to the Marine Mammal and Sea Turtle Stranding Hotline or the Marine Mammal Stranding Network. In addition, MMS must be notified within 24 hours of an injury or death by the operator of the vessel responsible. If oil and gas industry activity is responsible for the injury or death,

the responsible parties should remain available to assist the respective salvage and stranding network as needed.

Marine Trash and Debris Awareness and Elimination (NTL 2003-G11)

The Marine Trash and Debris Awareness and Elimination NTL (NTL 2003-G11) provides guidance to reduce the accidental introduction of marine trash and debris into the GOM. This NTL requires the placement of marine debris elimination placards, with specified language, in prominent places on all fixed and floating production facilities that have sleeping or food preparation capabilities, and on all mobile drilling units engaged in oil and gas operations in the GOM OCS. This NTL also requires marine debris awareness training for all offshore employees and contractors actively engaged in offshore operations. This training includes (1) viewing a training video or slide show and (2) receiving an explanation from the company's management that emphasizes their commitment to achieve the objectives of the trash and debris containment requirement. This NTL describes certification guidelines including the preparation of an annual report to MMS from a company official that describes the marine trash and debris awareness training process and certifies that the training process has been followed for the previous calendar year.

4. IMPACT ANALYSIS

4.1. UPDATE OF PROJECTIONS OF POTENTIAL ACTIVITY FROM THE PROPOSED ACTION

4.1.1. Resource Estimates and Timetables

The multisale EIS discussed projections for activities associated with a typical proposed action. The estimated amounts of resources projected to be leased, discovered, developed, and produced as a result of the proposed lease sale are 0.276-0.654 BBO and 1.590-3.300 tcf of gas. Review of these projections carried out since the publication of the multisale EIS indicates that the information is still valid and is not only incorporated by reference, but still up-to-date.

4.1.2. Hurricane Lili

As discussed in **Chapter 1.5** of the multisale EIS, criteria, models, and procedures for shutdown operations and the orderly evacuation of personnel prior to a pending hurricane have been in place on the GOM OCS for more than 30 years. Operating experience from extensive drilling activities and the presence of more than 4,000 platforms during the 30-plus years of the GOM OCS Program has proven the effectiveness and safety of securing wells and evacuating a facility in advance of severe weather conditions. This was evident in early October 2002 when Hurricane Lili, a Category 4 hurricane, passed near 800 OCS structures in the GOM. Of 800 structures, 6 were seriously damaged. All six were more than 20 years old. Of the 99 drilling rigs in the GOM at that time, 4 sustained substantial damage. About 25,000 offshore workers were safely evacuated (USDOI, MMS, 2002c).

Nine pollution events occurred as a result of Hurricane Lili. The only significant incident was a 350-barrel (bbl) oil spill at Ship Shoal Block 119. The other eight pollution events ranged from 0.14 gallons to 3 bbl. In August 2003, MMS published a report that recorded the transport and fate of oil spilled at Ship Shoal Block 119 during Hurricane Lili (USDOI, MMS, 2003a). The report states that the lessee mounted an appropriate response and the response was complicated by hurricane-related onshore conditions. Approximately 145 bbl of oil was recovered and 205 bbl of oil dissipated. No shoreline or wildlife impacts were reported. No birds were fouled. The unrecovered oil was removed from the surface of the water by natural weathering processes including evaporation, dissolution in the water, adsorption to particulate material, and biodegradation. The lessee, Murphy Exploration and Production Company, the U.S. Coast Guard, the Louisiana Oil Spill Coordinator's Office, oil-spill-response organizations, and MMS have discussed the response (Bedell, 2003). The group will explore issues including onshore infrastructure closure and the resumption of open routes to the GOM following the passage of a hurricane.

4.1.3. Louisiana's Artificial Reef Program

Louisiana passed legislation in 2002 requiring that the Louisiana Artificial Reef Program be reviewed and recommendations be made to improve and revise the program where necessary. Public hearings were held in March and April 2003 for offshore shrimpers to identify areas where artificial reefs would not interfere with shrimping. The 2003 public hearings, held across the state by the Louisiana Department of Wildlife and Fisheries (LDWF), were reported to be poorly attended.

In response to the State legislation, the LDWF reconvened a Louisiana Artificial Reef Initiative (LARI) committee to review, discuss, and provide recommendations to the Louisiana Artificial Reef Council in an effort to update the LDWF Artificial Reef Program. Four recommendations to the Council were made by the LARI committee:

1. establish deepwater (>400 ft) artificial reef sites;
2. reconfigure the existing nine artificial reef planning areas;
3. establish a committee to evaluate the Special Artificial Reef Sites (SARS) – Amendment 2; and
4. establish an inshore (shore to 100 ft) artificial reef working group.

The Artificial Reef Council approved deepwater reef sites and an inshore reef working group. The Council deferred the LARI committee's recommendation to reconfigure the existing reef planning areas to create smaller planning areas, which would target areas of higher density of platforms. No action was taken by the Council on the LARI committee's recommendation to establish a committee comprised of representatives of the shrimping industry, oil and gas industry, MMS, biologists, and various other user groups for evaluation of the permitting of SARS.

4.1.4. Seismic Surveys

Geophysical seismic surveys are performed to obtain information on surface and near-surface geology and on subsurface geologic formations. The MMS is currently completing a programmatic EA (PEA) on G&G permitted activities in the GOM (USDOI, MMS, in preparation), which includes a detailed description of seismic surveying technologies and operations. The PEA is expected to be published in the fall of 2003. Information from the Draft PEA on seismic surveying technologies and operations was used in the preparation of the multisale EIS and was summarized in **Chapter 4.1.1.2.1**, Seismic Surveying Operations, of the multisale EIS.

4.1.5. Structure Removal Operations

The MMS is preparing a PEA to assess the potential impacts that decommissioning activities, related to the explosive and nonexplosive severing of seafloor obstructions and facilities (i.e., wellheads, caissons, casing strings, platforms, mooring devices, etc.), and subsequent salvage operations have on the GOM. Preparation of the PEA is an important step in the decision process for future permitting for the removal of offshore structures and for further consultation and coordination with other Federal agencies. The PEA will be used as part of the rulemaking process by NOAA for incidental take regulations under Subpart I of the Marine Mammal Protection Act (MMPA) and to initiate consultation for explosive, structure removal operations under Section 7 of the Endangered Species Act (ESA). Topics of primary concern to be addressed in the PEA include removal technologies, industry needs related to water depth and location, and the potential impacts of structure removal operations on marine and socioeconomic environments. On April 16, 2003, MMS published a Notice of Preparation in the *Federal Register* requesting information or issues that should be addressed in the PEA. Structure decommissioning is discussed in **Chapter 4.1.1.4** of the multisale EIS.

On July 30, 2003, NOAA Fisheries issued a biological opinion regarding the use of de minimus charges of $\leq$5 lb for structure removal operations. The NOAA Fisheries concurred with MMS that the use of these small charges are not likely to adversely affect ESA-listed species under their jurisdiction.

4.2. UPDATE OF INFORMATION ON THE AFFECTED ENVIRONMENT

Chapter 3 and Appendix 9 of the multisale EIS provides a complete description as of 2002 of the affected environment for the proposed lease sale. For a number of resources (geology, meteorology, air quality, water quality, coastal barrier beaches and associated dunes, wetlands, deepwater benthic communities, topographic features, sea turtles, coastal and marine birds, fish resources, public services, infrastructure, land-use plans, sociocultural issues and environmental justice, commercial fisheries, recreational resources and beach use, archaeological resources, and coastal zone management plans), MMS has identified no new information since completion of the multisale EIS. The reader should refer to the multisale EIS for information regarding these resources.

The following summarizes the affected environment for those resources for which MMS has new information that was unavailable during the preparation of the multisale EIS. This includes information on protective measures for protected species, estimated population numbers of cetaceans in the GOM, designation of critical habitat for the Gulf sturgeon, a revised oil-spill probability for the snowy plover, proposed liquefied natural gas (LNG) projects, and proposed sand dredging projects.

4.2.1. Marine Mammals

Chapter 3.2.4 of the multisale EIS discusses nonendangered/nonthreathened and endangered/ threatened species of marine mammals known to occur in the GOM. Five mysticete (or baleen) whales (the northern right, blue, fin, sei, and humpback), one odontocete (or toothed) whale (the sperm whale), and one sirenian (the West Indian manatee) are listed as endangered. The sperm whale is common in oceanic waters of the northern GOM and is a resident species, while the baleen whale is considered rare or extralimital (Würsig et al., 2000). The West Indian manatee *(Trichechus manatu*s) inhabits only coastal marine, brackish, and freshwater areas.

For over a decade, MMS has funded and participated in research on marine mammals in the GOM. Through this research, particularly the Gulf cetaceans (GulfCet) I, GulfCet II, and Sperm Whale Acoustic Monitoring Program (SWAMP) programs, the diverse cetacean community of the GOM has been documented, including the year-round sperm whale population. Many of these cruises included tissue sampling of numerous GOM cetacean species for genetic analysis.

New information concerning estimated population numbers for cetaceans in the northern GOM is presented below in **Table 1** (Mullin and Fulling, in press). This information is essential for future MMS petitioning needs under the MMPA and for subsequent consultation requirements under Section 7 of the ESA. **Chapter 4.4.2.1** of this EA reevaluates the proposed action's potential impact on marine mammals given this new information and the protected species stipulation and NTL's described in **Chapter 3.3**.

4.2.2. Sea Turtles

Five species of sea turtles are known to inhabit the waters of the GOM: the green turtle, the loggerhead, the hawksbill, the Kemp's ridley, and the leatherback (Pritchard, 1997). All sea turtle species inhabiting the GOM are listed as either endangered or threatened under the ESA of 1973 (Pritchard, 1997). **Chapter 3.2.5** of the multisale EIS presents information on the distribution, habitat, feeding, and nesting of sea turtles. **Chapter 4.4.2.2** of this EA reevaluates the proposed action's potential impact on sea turtles with the protected species stipulation and NTL's described in **Chapter 3.3**.

4.2.3. Gulf Sturgeon Critical Habitat Designation

The Gulf sturgeon (*Acipenser oxyrinchus desotoi*) is the only listed threatened fish species in the GOM. In 1991, the Gulf sturgeon was listed as threatened. Subsequently, a recovery plan was developed to ensure the preservation and protection of Gulf sturgeon spawning habitat (USDOI, FWS, and Gulf States Marine Fisheries Commission, 1995). Gulf sturgeon critical habitat in the GOM has been designated in Louisiana, Mississippi, Alabama, and Florida. The designation was published in the *Federal Register* on March 19, 2003, and became effective April 18, 2003. Critical habitat identifies specific areas that are essential to the conservation of Gulf sturgeon, and that may require special management considerations or protections. Fourteen geographic areas among the GOM rivers and tributaries were designated critical habitat. These areas encompass approximately 2,783 river km (1,730

river mi) and 6,042 km^2 (2,333 mi^2) of estuarine and marine habitat. The estuarine and marine critical habitat units extend from Lake Borgne in Louisiana to Suwannee Sound in Florida. Major shipping channels have been excluded in the Lake Borgne (Little Lake to Mississippi near shore Gulf) and Pensacola Bay critical habitat units. Gulf sturgeon are discussed in **Chapter 3.2.8** of the multisale EIS. **Chapter 4.4.2.3** of this EA evaluates the proposed action's potential impact on Gulf sturgeon critical habitat and reevaluates the potential impact with the protected species stipulation and NTL's described in **Chapter 3.3**.

Table 1

Estimated Abundance of Cetaceans in the Northern GOM Oceanic Waters

Species	Common Name	Estimated Number of Individuals
Balaenoptera edeni	Bryde's whale	40
Physeter macrocephalus	Sperm whale	1,349
Kogia spp.	Dwarf or pygmy sperm whale	742
Ziphius cavirostris	Cuvier's beaked whale	95
Mesoplodon spp.	Beaked whales not including Cuvier's	106
Unidentified ziphiid	Unidentified beaked whales	146
Feresa attenuata	Pygmy killer whale	408
Pseudorca crassidens	False killer whale	1,038
Orcinus orca	Killer whale	133
Globicephala sp.	Pilot whale	2,388
Peponocephala electra	Melonheaded whale	3,451
Grampus griseus	Risso's dolphin	2,169
Tursiops truncatus	Bottlenose dolphin	2,239
Steno bredanensis	Rough-toothed dolphin	985
Lagenodelphis hosei	Fraser's dolphin	726
Stenella frontalis	Atlantic spotted dolphin	175
Stenella longirostris	Spinner dolphin	11,971
Stenella attenuate	Pantropical spotted dolphin	91,321
Stenella clymene	Clymene dolphin	17,355
Stenella coeruleoalba	Striped dolphin	6,505
Stenella spp.	Unidentified *Stenella* dolphin	643
Unidentified dolphin		1,020
Unidentified small whale		108
Unidentified large whale		60
Unidentified odontocete	Unidentified toothed whale (including dolphins)	136

Source: Mullin and Fulling, in press.

4.2.4. Snowy Plover

Coastal and marine birds are discussed in **Chapter 3.2.7** of the multisale EIS. The snowy plover inhabits the areas identified in **Figure 3**. When commenting on the Draft EIS for Eastern Planning Area (EPA) Lease Sales 189 and 197, published after the multisale, FWS stated snowy plover are present year round (USDOI, MMS, 2003b) as opposed to the period (February to August) that was used for the multisale EIS and the EPA Draft EIS. **Chapter 4.4.2.4** of this EA reevaluates the proposed action's potential impact on snowy plover given this new information.

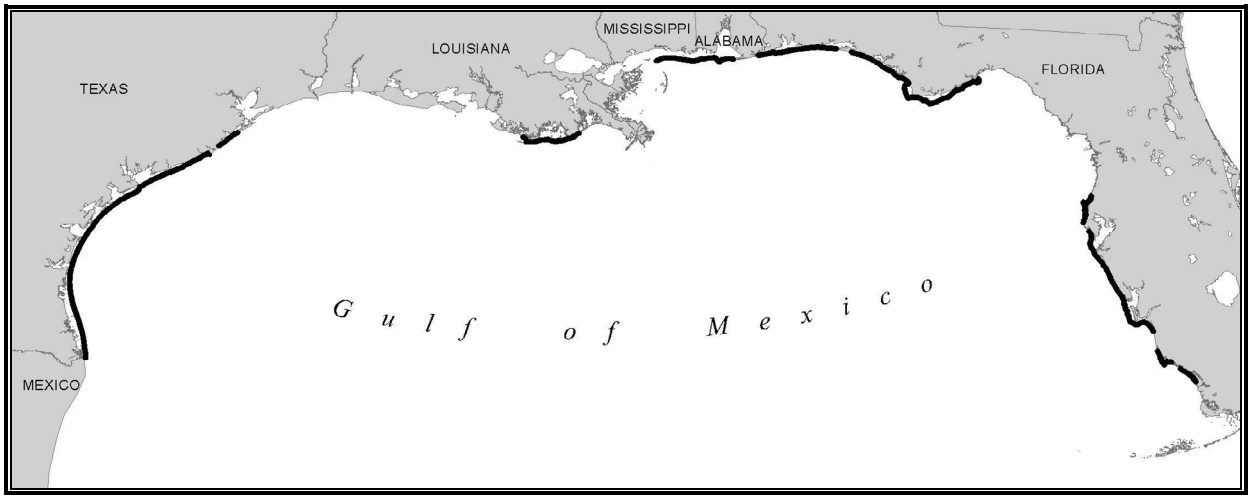

Figure 3. Snowy Plover Habitat.

4.3. UPDATE OF POTENTIAL CUMULATIVE ACTIVITIES

4.3.1. Liquefied Natural Gas Projects

Chapter 4.1.1.3.8.6, Alternative Transportation Methods of Natural Gas, of the multisale EIS discusses LNG. In the LNG process, natural gas is super-cooled to approximately -260 ^{o}F and reduced in volume to a fraction of its gaseous state (about 1/600th reduction). Tankers with specially designed cargo tanks transport the LNG to terminals for regasification. Since the publication of the multisale EIS, USCG has received two applications for LNG ports in the GOM (Port Pelican and Energy Bridge).

On November 25, 2002, Port Pelican LLC (an affiliate of ChevronTexaco Corporation) submitted an application for a deepwater port in Vermilion, Block 140, located about 36 mi south-southwest of Fresh Water City, Louisiana. The deepwater port would consist of a gravity-based terminal for receipt, storage, and regasification of LNG, a 37-mi pipeline to transport natural gas to existing offshore pipelines, and associated anchorage and vessel routes. On December 27, 2002, a Notice of Application was published in the *Federal Register*. On April 7, 2003, a Notice of Intent to prepare an EIS and request for comments was published in the *Federal Register*. A public meeting was held in Lafayette, Louisiana, on April 29, 2003. On May 30, 2003, the Draft EIS was published and the comment period closed on July 15, 2003. A public hearing was held in New Orleans, Louisiana, on August 18, 2003. The Final EIS was for published in August 2003 (USCG, 2003). The USCG's record of decision on the application is expected on November 14, 2003.

On December 20, 2002, USCG and the Maritime Administration (MARAD) received an application from El Paso Energy Bridge GOM LLC for a deepwater port located off Louisiana in West Cameron Area, South Addition, Block 603. Under the Energy Bridge's concept of operations, LNG vessels calling on the terminal would attach to a retrievable underwater turret. Regasification of the LNG would occur on facilities located on the LNG vessel. Market-ready natural gas would be offloaded from the vessel through the turret down the riser to connect with existing pipelines to deliver the natural gas to onshore markets. On January 23, 2003, a Notice of Application was published in the *Federal Register*. The USCG is currently preparing an EA on the Energy Bridge project. The USCG's decision on the application is expected in late December 2003.

4.3.2. Sand Dredging Projects

In the fall of 2003, MMS is scheduled to publish a Multi-Project EA for dredging and emplacement of OCS sand from Ship Shoal, an ancient and submerged barrier island approximately 31 mi (50 km) long and 15 mi (24 km) off the Louisiana coast. The U.S. Army Corps of Engineers (USCOE), Louisiana Department of Natural Resources, and USEPA are cooperating agencies. The projects considered in the EA are two barrier island restoration projects on Isles Dernieres and the construction of a 72-mi levee as

part of the GOM hurricane protection project, the Morganza levee. The sand borrow areas have been designated by polygons in the Ship Shoal and South Pelto protraction areas, consisting of parts of 10 OCS blocks: Ship Shoal Blocks 87, 88, 89, 94 and 95, and South Pelto Blocks 12, 13, 14, 18 and 19 (**Figure 4**). Each polygon is approximately 10 mi^2 in area.

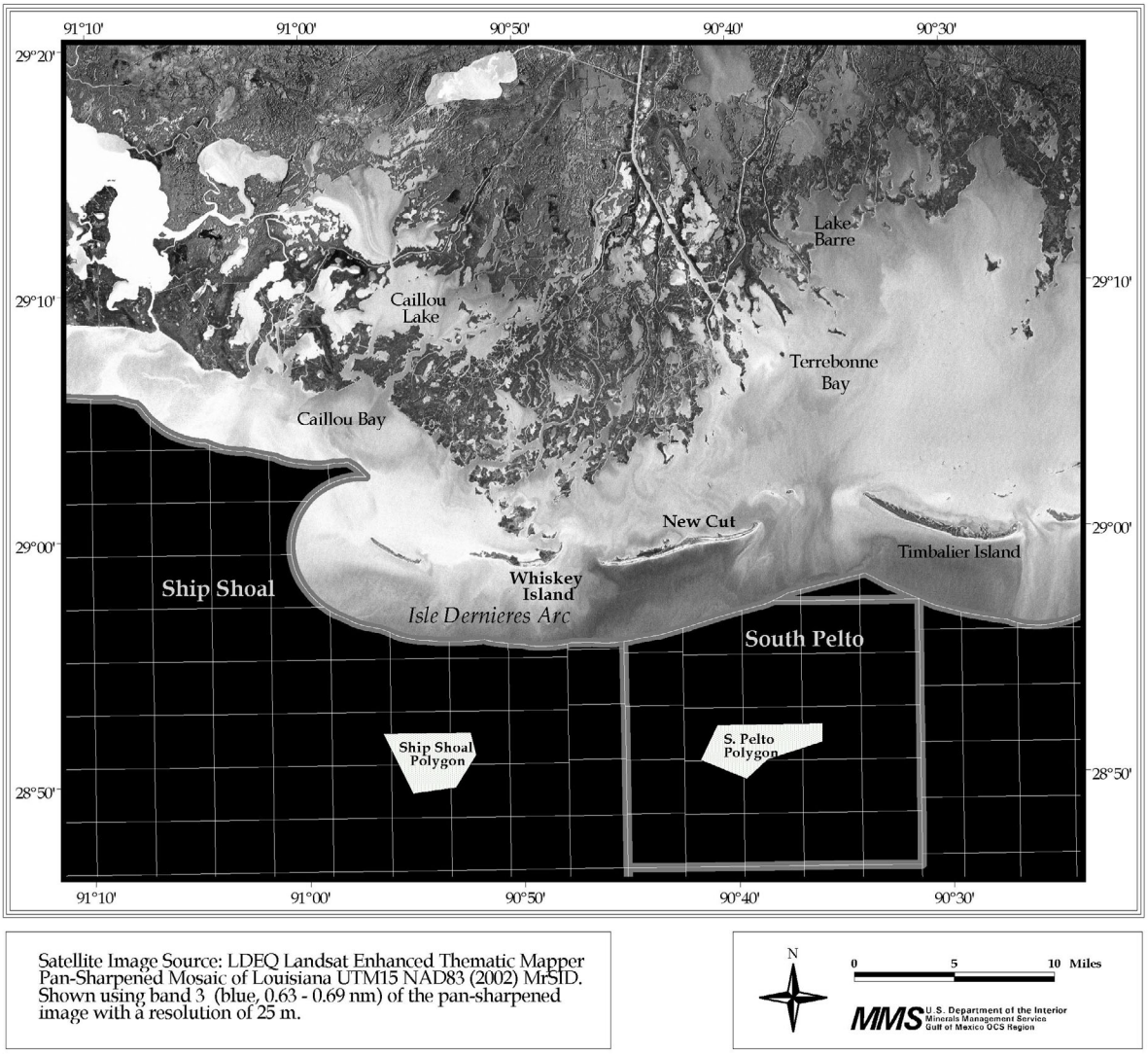

Figure 4. Satellite Image of Coastal Louisiana Shoreline Showing (1) the Location of the Isles Dernieres Barrier Island Arc, (2) the Whiskey Island/New Cut Tidal Channel Locations for Beach Restoration Projects, and (3) the Proposed OCS Sand Borrow Polygons.

The EA will consider the physical, biological, and socioeconomic resources affected by dredging and impacts from sand dredging or emplacement for three separate projects for which MMS proposes to award noncompetitive leases in late 2003 or 2004. Two leases are intended for the State of Louisiana or Terrebonne Parish, Louisiana, for up to 3.5 million yd^3 of sand for the beach nourishment projects at New Cut and Whiskey Island in the Isles Dernieres barrier arc. These projects are scheduled to begin in the spring of 2004 and each project involves continuous sand dredging and emplacement over 4 months. One lease is intended for the USCOE for 12 million yd^3 for the Morganza levee project. This project is scheduled to begin in 2004 and involves sand removal during 20 months of continuous dredging and temporary storage inland at two impoundment sites in Terrebonne Parish near Houma, Louisiana, over 12 years. The barrier island restoration projects on Isles Dernieres are expected to benefit a total of 1,341 ac;

102 ac (41 hectares (ha)) of beach and wetlands at New Cut, and 1,239 ac (501 ha) of beaches and dunes on Whiskey Island.

4.4. IMPACTS FROM ALTERNATIVE A — THE PROPOSED ACTION

4.4.1. Summary of Analysis Incorporated by Reference from the Multisale EIS

The multisale EIS analyzed the effects of a typical CPA lease sale by presenting a set of ranges for resource estimates, projected exploration and development activities, and impact-producing factors for any of the proposed CPA lease sales held over the 5-year period. This EA tiers off the initial multisale EIS and incorporates that document by reference. All unleased blocks in the CPA will be available for lease under the proposed action (as described in **Chapter 3.1**). The MMS expects only a small percentage of blocks would be leased, and an even smaller percentage would actually produce oil and gas. The following is a summary of impacts to resources taken from the multisale EIS.

4.4.1.1. Impacts on Coastal Resources

No significant impacts to the physical shape and structure of barrier beaches and associated dunes are expected to occur as a result of the proposed action. Should a spill contact a barrier beach, sand removal during cleanup activities is expected to be minimal.

Adverse initial impacts and more importantly secondary impacts of pipeline and navigation canals are considered the most significant proposed-action-related impacts to wetlands. Although initial impacts are considered locally significant and are largely limited to where OCS-related canals and channels pass through wetlands, secondary impacts may have substantial, progressive, and cumulative adverse impacts to the hydrologic basin or subbasin in which they are found. Offshore oil spills resulting from the proposed action are not expected to significantly damage inland wetlands. The greatest threat to wetland habitat is from an inland spill from a vessel accident or pipeline rupture. While a resulting slick may cause minor impacts to wetland habitat, equipment and personnel used to clean up a slick over the impacted area may generate the greatest direct impacts to the area.

Normal OCS activities are expected to have little adverse impact on seagrass communities. Impacts from pipeline installation activities are expected to be very small and short-term. Inshore spills from vessel collisions or pipeline ruptures pose the greatest potential threat to seagrass communities.

No significant impacts to listed beach mice are expected to occur as a result of the proposed action. Adverse impacts to Alabama, Choctawhatchee, St. Andrew, and Perdido Key beach mice are unlikely. Impacts may result from consumption of beach trash and debris. No direct impacts from oil spills are expected. Protective measures required under the ESA should prevent any oil-spill response and cleanup activities from having significant impact to the beach mice and their habitat.

Adverse impacts on endangered/threatened and nonendangered/nonthreatened coastal and marine birds are expected to be sublethal. These effects include behavior changes, eating OCS-related contaminants or discarded debris, and displacement of localized groups from optimal habitats. Chronic sublethal stress, however, is often undetectable in birds. As a result of stress, individuals may weaken and be prone to infection or disease, have reduced reproductive success, or have disturbed migration patterns. Oil spills pose the greatest potential direct and indirect impacts to coastal and marine birds. If physical oiling of individuals or local groups of birds occurs, some degree of both acute and chronic physiological stress associated with direct and secondary uptake of oil would be expected. Low levels of oil could stress birds by interfering with food detection, feeding impulses, predator avoidance, territory definition, homing of migratory species, susceptibility to physiological disorders, disease resistance, growth rates, reproduction, and respiration. Reproductive success can be affected by the toxins in oil. Indirect effects occur by fouling of nesting habitat, and displacement of individuals, breeding pairs, or populations to less favorable habitats. Dispersants used in spill cleanup activity can have toxic effects similar to oil on the reproductive success of coastal and marine birds. The air, vehicle, and foot traffic that takes place during shoreline cleanup activity can disturb nesting populations and degrade or destroy habitat.

Routine activities resulting from the proposed action are expected to have little impact on Gulf sturgeon. Impacts on Gulf sturgeon may occur from resuspended sediments and OCS-related discharges.

Contact with spilled oil could cause irritation of gill epithelium and disturbance of liver function in Gulf sturgeon.

Impacts to coastal water quality from the proposed action are expected to be minimal. The primary impacting sources to water quality in coastal waters are point-source and nonpoint-source discharges from OCS support facilities and support-vessel discharges.

Emissions of pollutants into the atmosphere from the activities associated with the proposed action are not projected to have significant impacts on onshore air quality. Emissions from OCS activity are not expected to have concentrations that would change onshore air-quality classifications. Increases in onshore annual average concentrations of NO_x, SO_x, and PM_{10} are estimated to be less than the maximum increases allowed in the PSD Class II areas or the PSD Class I area.

The impact from the proposed action on Gulf Coast recreational beaches is expected to be minimal. The proposed action may result in an incremental increase in noise from helicopter and vessel traffic, nearshore operations that may adversely affect the enjoyment of some Gulf Coast beach uses, and some increases in beached debris; these impacts are expected to have little effect on the number of beach users. Impacts from oil spills are expected to be short-term and localized; a large volume of oil contacting a recreational beach could close the area to recreational use for up to 30 days.

Routine activities associated with the proposed action are not expected to impact coastal historic archaeological resources. It is very unlikely that an oil spill would occur and contact coastal historic archaeological sites from accidental events associated with the proposed action. The major effect from an oil-spill impact would be visual contamination of a historic coastal site, such as a historic fort or lighthouse. As historic archaeological sites are protected under law, it is expected that any spill cleanup operations would be conducted in such a way as to cause little or no impacts to historic archaeological resources. These impacts would be temporary and reversible.

The proposed action is not expected to result in impacts to coastal prehistoric archaeological sites; however, should such an impact occur, unique or significant archaeological information could be lost. It is very unlikely that an oil spill would occur and contact coastal, barrier island prehistoric sites as a result of the proposed action. Should a spill contact a prehistoric archaeological site, unique or significant archaeological information could be irreversibly damaged or lost; damage might include loss of radiocarbon-dating potential, direct impact from oil-spill cleanup equipment, and/or looting. Previously unrecorded sites could be impacted by oil-spill cleanup operations on beaches.

Activities resulting from the proposed action are expected to minimally affect the analysis area's land use, infrastructure, or demographic characteristics of the Gulf coastal communities. The proposed action is expected to generate less than a 1 percent increase in employment in the Texas, Louisiana, Mississippi, and Alabama subareas. Nowhere would these impacts be significant because demand will be met primarily with the existing population and available labor force. Accidental events such as oil or chemical spills, blowouts, and vessel collisions would have no effects on land use or demographics. Coastal or nearshore spills could have short-term adverse effects on coastal infrastructure requiring cleanup of any oil or chemicals spilled. The opportunity costs associated with oil-spill cleanup activities are expected to be temporary and of short duration.

In compliance with Executive Order 12898 on Environmental Justice, the proposed action is not expected to have a disproportionate effect on low-income or minority populations. Impacts related to the proposed action are expected to be economic and have a limited but positive effect on these populations. Accidental spill events associated with the proposed action are not expected to have disproportionate adverse environmental or health effects on minority or low-income people.

4.4.1.2. Impacts on Offshore Environments

Adverse impacts to pinnacles or topographic features from routine activities resulting from the proposed action are not expected because the Live Bottom (Pinnacle Trend) and Topographic Features Stipulations establish requirements for setbacks from these features. Adverse impacts from accidental seafloor oil releases or blowouts are expected to be rare because drilling and pipeline operations are not permitted in the vicinity of pinnacles or topographic features and because both pinnacles and topographic features are small in size and dispersed within the areas that they occur; no community-wide impacts are expected. If contact were to occur between diluted oil and adult sessile biota, including coral colonies in the case of the Flower Garden Banks, the effects would be primarily sublethal and there would be limited incidents of mortality.

No adverse impacts to the ecological function or biological productivity of the widespread, low-density chemosynthetic communities or to the widespread, typical, deep-sea benthic communities are expected to occur as a result of a routine activities or accidental events resulting from the proposed action. The potential for adverse impacts to the rarer, widely scattered, high-density, Bush Hill-type chemosynthetic communities are expected to be greatly reduced by the requirement for OCS activities to avoid potential chemosynthetic communities by a minimum of 1,500 ft (NTL 2000-G20). High-density chemosynthetic communities could experience minor impacts from drilling discharges or resuspended sediments located at more than 1,500 ft away.

Impacts to marine water quality occur from discharges of drilling fluids and cuttings during exploration and production. Impacts to marine water quality are expected to be minimal as long as all regulatory requirements are met. Spills <1,000 bbl are not expected to significantly impact marine water quality. Larger spills, however, could impact marine water quality. Chemical spills, the accidental release of synthetic-based drilling fluids (SBF), and blowouts are expected to have temporary localized impacts on marine water quality.

Emissions of pollutants into the atmosphere from offshore facilities are not expected to significantly impact offshore air quality because of emission heights and rates. Accidents involving high concentrations of H_2S could result in deaths as well as environmental damage. Other emissions of pollutants into the atmosphere from accidental events as a result of the proposed action are not projected to have significant impacts.

The routine activities related to the proposed action are not expected to have long-term adverse effects on the size and productivity of any marine mammal species or population stock endemic to the northern GOM. Routine OCS activities are expected to have impacts that are sublethal. A small number of marine mammals could be harmed or killed by chance collisions with service vessels and by eating indigestible trash and plastic debris from proposed-action-related activities. Lethal "takes" due to explosive removal of OCS platform or production facilities are not expected because of established mitigation measures. Populations of marine mammals in the northern Gulf are expected to be exposed to residuals of oils spilled as a result of the proposed action during their lifetimes. Chronic or acute exposure may result in the harassment, harm, or mortality to marine mammals occurring in the northern Gulf. In most foreseeable cases, exposure to hydrocarbons persisting in the sea following the dispersal of an oil slick will result in sublethal impacts to marine mammals.

The routine activities resulting from the proposed action are unlikely to have significant adverse effects on the size and recovery of any sea turtle species or population in the GOM. Routine activities are expected to have impacts that are sublethal. Adverse impacts are localized degradation of water quality from operational discharges near platforms; noise from helicopters, service vessels platform, and drillship operations; and disorientation caused by brightly-lit platforms. Sea turtles could be harmed or killed from chance collisions with service vessels and from eating floating plastic debris from proposed-action-related activities. Lethal "takes" due to explosive removals of OCS facilities are expected to be rare due to established mitigation measures (e.g., NOAA Fisheries Observer Program). Accidental blowouts, oil spills, and spill-response activities resulting from the proposed action have the potential to impact small to large numbers of sea turtles in the GOM. Populations of sea turtles in the northern Gulf will be exposed to residuals of oils spilled as a result of the proposed action during their lifetimes. Chronic or acute exposure may result in the harassment, harm, or mortality to sea turtles occurring in the northern Gulf. In most foreseeable cases, exposure to hydrocarbons persisting in the sea following the dispersal of an oil slick will result in sublethal impacts to sea turtles. Death would likely occur to sea turtle hatchlings exposed to, becoming fouled by, or consuming tarballs.

A less than 1 percent decrease in fish resources and/or standing stocks or in essential fish habitat (EFH) would be expected as a result of the proposed action. Coastal and marine environmental degradation resulting from the proposed action is expected to have little effect on fish resources or EFH. Recovery of fish resources and EFH can occur from more than 99 percent, but not all, of the expected coastal and marine environmental degradation. Fish populations, if left undisturbed, would regenerate in one generation, but any loss of wetlands as EFH would be permanent. Impacts are expected to result in less than a 1 percent change in commercial fishing "pounds landed" or in the value of landings. Oil spills estimated to result for the proposed action would cause less than a 1 percent decrease in standing stocks of any population, commercial fishing efforts, landings, or value of those landings. The resultant impact on fish populations and commercial fishing activities within the CPA or WPA would be negligible and

indistinguishable from variations due to natural causes. Any affected commercial fishing activity would recover within 6 months.

Routine activities associated with the proposed action are not expected to impact offshore historic or prehistoric archaeological resources. The greatest potential impact to an offshore historic archaeological resource would result from direct contact between an offshore activity and a historic shipwreck. Offshore oil and gas activities resulting from the proposed action could contact a shipwreck because of incomplete knowledge on the location of shipwrecks in the Gulf. Although this occurrence is not probable, such an event could result in the disturbance or destruction of important historic archaeological information. Should an offshore prehistoric archaeological site be contacted by proposed-action-related activities, unique or significant archaeological information could be lost.

4.4.2. Updated Impact Analysis for the Proposed Action

The following chapters describe the potential impacts as a result of the proposed action for those resources (marine mammals, sea turtles, Gulf sturgeon, and snowy plover) where new information became available after MMS prepared the multisale EIS.

4.4.2.1. Marine Mammals

The multisale EIS stated that small numbers of marine mammals could be killed or injured by chance collision with service vessels and by eating indigestible debris, particularly plastic items, lost from service vessels, drilling rigs, and fixed and floating platforms. Deaths due to structure removals are not expected due to existing mitigation measures or those being developed for structures placed in oceanic waters. There is no conclusive evidence whether anthropogenic noise has or has not caused long-term displacements of, or reductions in, marine mammal populations. Contaminants in waste discharges and drilling muds might indirectly affect marine mammals through food-chain biomagnification, although the scope of effects and their magnitude are not known. The routine activities of the proposed action are not expected to have long-term adverse effects on the size and productivity of any marine mammal species or population stock endemic to the northern GOM.

Accidental blowouts, oil spills, and spill-response activities resulting from the proposed action have the potential to impact marine mammals in the GOM. Characteristics of impacts (i.e., acute vs. chronic impacts) depend on the magnitude, frequency, location, and date of accidents, characteristics of spilled oil, spill-response capabilities and timing, and various meteorological and hydrological factors. Populations of marine mammals in the northern GOM will be exposed to residuals of oils spilled as a result of the proposed action during their lifetimes. Chronic or acute exposure may result in the harassment, harm, or mortality to marine mammals occurring in the northern GOM. In most foreseeable cases, exposure to hydrocarbons persisting in the sea following the dispersal of an oil slick will result in sublethal impacts (e.g., decreased health, reproductive fitness, and longevity; and increased vulnerability to disease) to marine mammals.

The Protected Species Stipulation and NTL's discussed in **Chapter 3.3** were not analyzed in the multisale EIS because they were not in place at the time the EIS was completed. These mitigation measures would further reduce the potential for any impacts related to the proposed action that were described in the EIS. With regard to the seismic NTL, NOAA has stated that the requirements of the NTL will greatly reduce the potential for any serious adverse impacts to sperm whales and other marine mammals in the Gulf of Mexico from seismic airgun use.

4.4.2.2. Sea Turtles

The multisale EIS stated that routine activities resulting from the proposed action have the potential to harm individual sea turtles. These animals could be impacted by the degradation of water quality resulting from operational discharges; noise generated by helicopter and vessel traffic, platforms, and drillships; brightly-lit platforms; explosive removals of offshore structures; vessel collisions; and jetsam and flotsam generated by service vessels and OCS facilities. Lethal effects are most likely to be from chance collisions with OCS service vessels and ingestion of plastic materials. "Takes" due to explosive removals are expected to be rare due to mitigation measures already established (e.g., NOAA Fisheries Observer Program) and in development. Most OCS activities are expected to have sublethal effects.

Contaminants in waste discharges and drilling muds might indirectly affect sea turtles through food-chain biomagnification; there is uncertainty concerning the possible effects. Chronic sublethal effects (e.g., stress) resulting in persistent physiological or behavioral changes and/or avoidance of impacted areas could cause declines in survival or fecundity, and population; however, such declines are not expected. The routine activities of the proposed action are unlikely to have significant adverse effects on the size and recovery of any sea turtle species or population in the GOM.

The Protected Species Stipulation and NTL's discussed in **Chapter 3.3** were not analyzed in the multisale EIS because they were not in place at the time the EIS was completed. These mitigation measures would further reduce the potential for any impacts related to the proposed action that were described in the EIS.

4.4.2.3. Gulf Sturgeon Critical Habitat Designation

The multisale EIS stated that Gulf sturgeon critical habitat in the GOM has been designated in Louisiana, Mississippi, Alabama, and Florida. The estuarine and marine critical habitat units extend from Lake Borgne in Louisiana to Suwannee Sound in Florida. The coastal area analyzed in the multisale EIS is the known locations of Gulf sturgeon (**Figure 5**). This area is slightly larger and encompasses the Gulf sturgeon critical habitat. The probability of an oil spill ≥1,000 bbl occurring and contacting known locations of the Gulf sturgeon within 10 days as a result of the proposed action is 2-5 percent. Contact with spilled oil could cause irritation of gill epithelium and disturbance of liver function in Gulf sturgeon. Other potential impacts on Gulf sturgeon and critical habitat may occur from resuspended sediments (channel dredging and coastal pipeline installation) and OCS-related discharges, as well from nonpoint runoff from estuarine OCS-related facilities. Should a spill occur and contact the Gulf sturgeon habitat, it is expected to minimally impact the Gulf sturgeon due to the low toxicity of this pollution and almost absent overlap between individual Gulf sturgeon and occurrence of contamination. Routine activities resulting from the proposed action are expected to have little potential effect on Gulf sturgeon and critical habitat.

The Protected Species Stipulation and NTL's discussed in **Chapter 3.3** were not analyzed in the multisale EIS because they were not yet in place at the time the EIS was completed. These mitigation measures would further reduce the potential for any impacts related to the proposed action that were described in the EIS.

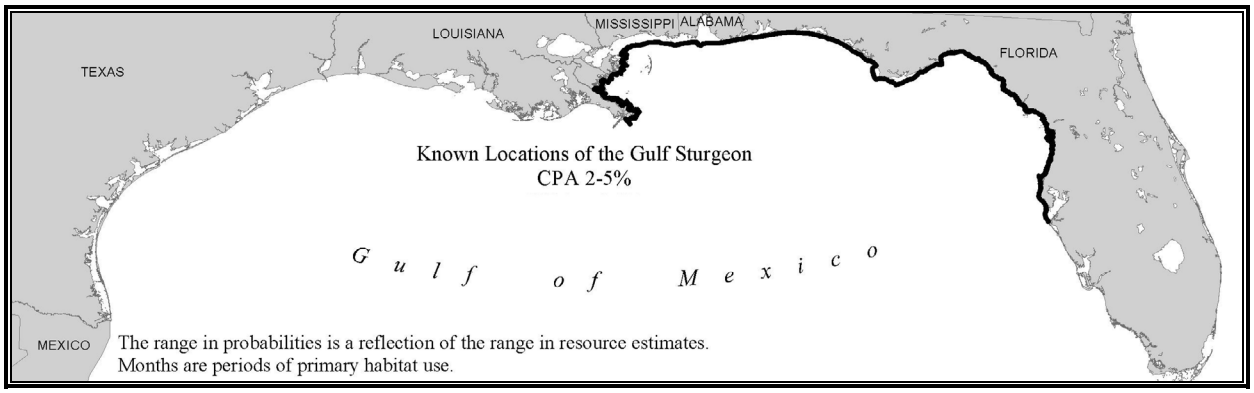

Figure 5. Probability of Oil Spills (≥1,000 bbl) Occurring and Contacting within 10 Days Known Locations of Gulf Sturgeon as a Result of the Proposed Action.

4.4.2.4. Snowy Plover

According to FWS, the snowy plover is present at its identified habitats year round as opposed to only February through August. Therefore, the oil-spill probability for the snowy plover was recalculated for this EA. The recalculated probability of an oil spill ≥1,000 bbl occurring and contacting snowy plover habitat within 10 days as a result of the proposed action is 2-5 percent. This is an increase from the February through August probability (2-4 %) as shown on Figure 4-21 of the multisale EIS.

The multisale EIS stated that oil spills from the proposed action pose the greatest potential direct and indirect impacts to snowy plover. Birds that are heavily oiled are usually killed. If physical oiling of individuals or local groups of birds occurs, some degree of both acute and chronic physiological stress associated with direct and secondary uptake of oil would be expected. Small coastal spills, pipeline spills, and spills from accidents in navigated waterways can contact and affect the snowy plover. Lightly oiled birds can sustain tissue and organ damage from oil ingested during feeding and grooming or from oil that is inhaled. Stress and shock enhance the effects of exposure and poisoning. Low levels of oil could stress snowy plover by interfering with food detection, feeding impulses, predator avoidance, territory definition, susceptibility to physiological disorders, disease resistance, growth rates, reproduction, and respiration. Reproductive success can be affected by the toxins in oil. Indirect effects occur by fouling of nesting habitat, and displacement of individuals, breeding pairs, or populations to less favorable habitats. Dispersants used in spill cleanup activity can have toxic effects similar to oil on the reproductive success of snowy plover. The, air, vehicle, and foot traffic that takes place during shoreline cleanup activity can disturb nesting populations and degrade or destroy habitat.

4.5. ALTERNATIVE B — THE PROPOSED ACTION EXCLUDING THE BLOCKS NEAR BIOLOGICALLY SENSITIVE TOPOGRAPHIC FEATURES

Alternative B would offer for lease all unleased blocks in the CPA, as described for the proposed action, with the exception of any unleased blocks within the 167 blocks in the CPA that are subject to the Topographic Features Stipulation. All the assumptions including the potential mitigating measures and resource estimates remain the same as in the proposed action.

4.6. ALTERNATIVE C — THE PROPOSED ACTION EXCLUDING THE UNLEASED BLOCKS WITHIN 15 MILES OF THE BALDWIN COUNTY, ALABAMA, COAST

Alternative C would offer for lease all unleased blocks in the CPA, as described for the proposed action, with the exception of any unleased blocks within 15 mi of the coast of Baldwin County, Alabama. Although the blocks to be excluded contain oil and/or gas resources, this alternative would not change the resource estimate and activity ranges for the overall proposed actions.

4.7. ALTERNATIVE D — NO ACTION

Alternative D is equivalent to cancellation of the proposed lease sale. The opportunity for development of the estimated of 0.276-0.654 BBO and 1.590-3.300 tcf of gas could have resulted from the proposed action would be precluded or postponed, and any potential environmental impacts resulting from the proposed action would not occur or would be postponed.

Canceling the proposed lease sale would eliminate the effects described for Alternative A (the proposed action). However, other sources of energy would substitute for the lost production. Principal substitutes would be additional imports, conservation, additional domestic production, and switching to other fuels. These alternatives, except conservation, would have significant negative environmental impacts of their own. These substitutes and the effects are discussed in the multisale EIS and *Energy Alternatives and the Environment* (USDOI, MMS, 2001), and are incorporated by reference.

4.8. CUMULATIVE ANALYSIS

The cumulative analysis considers the effects of impact-producing factors related to the proposed action, prior and future OCS sales, State oil and gas activities, other governmental and private projects and activities, and pertinent natural processes and events that may occur and adversely affect environmental and socioeconomic resources. Descriptions of these activities and the analysis of the cumulative effects are included in the multisale EIS. The cumulative conclusions for marine mammals, sea turtles, and snowy plover, presented below, remain unchanged from the multisale EIS. The Gulf sturgeon cumulative analysis below includes analysis of the critical habitat, which was designated after the multisale EIS was published. However, since Gulf sturgeon critical habitat is within the area analyzed

by the multisale EIS, the Gulf sturgeon conclusion has not changed. Also discussed are the potential impacts of the proposed LNG and sand projects presented in **Chapter 4.3**.

4.8.1. Marine Mammals

Activities considered under the cumulative scenario could affect protected cetaceans and sirenians. These marine mammals could be impacted by the degradation of water quality resulting from operational discharges; vessel traffic; noise generated by platforms; drillships; helicopters, and vessels; seismic surveys; explosive structure removals; oil spills; oil-spill response activities; loss of debris from service vessels and OCS structures; commercial fishing; capture and removal; and pathogens. The cumulative impact on marine mammals is expected to result in a number of chronic and sporadic sublethal effects (behavioral effects and nonfatal exposure to or intake of OCS-related contaminants or discarded debris) that may stress and/or weaken individuals of a local group or population and predispose them to infection from natural or anthropogenic sources. Few deaths are expected from an oil spills, chance collisions with OCS service vessels, ingestion of plastic material, commercial fishing, and pathogens. Oil spills of any size are estimated to be recurring events that would periodically contact marine mammals. Deaths as a result of structure removals are not expected to occur because of mitigation measures (e.g., NOAA Fisheries Observer Program). Disturbance (noise from vessel traffic and drilling operations, etc.) and/or exposure to sublethal levels of toxins and anthropogenic contaminants may stress animals, weaken their immune systems, and make them more vulnerable to parasites and diseases that normally would not be fatal. The net result of any disturbance would be dependent upon the size and percentage of the population likely to be affected; ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, or the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, 1980). Collisions between cetaceans and ships, though expected to be rare events, could cause serious injury or mortality.

Effects of the incremental contribution of the proposed action combined with non-OCS activities may be deleterious, as stated in the multisale EIS, to cetaceans occurring in the GOM. Biological significance of any mortality would depend, in part, on the size and reproductive rates of the affected stocks, as well as the number, age, and size of animals affected.

4.8.2. Sea Turtles

Activities considered under the cumulative scenario may harm sea turtles and their habitats. Those activities include structure installation, dredging, water quality and habitat degradation, OCS-related trash and flotsam, vessel traffic, seismic surveys, explosive structure removals, oil spills, oil-spill response activities, natural catastrophes, pollution, dredge operations, vessel collisions, commercial and recreational fishing, human consumption, beach lighting, and power plant entrainment. Sea turtles could be killed or injured by chance collision with service vessels or eating marine debris, particularly plastic items, lost from OCS structures and service vessels. It is expected that deaths due to structure removals would rarely occur due to mitigation measures (e.g., NOAA Fisheries Observer Program). The presence of, and noise produced by, service vessels and by the construction, operation, and removal of drill rigs may cause physiological stress and make animals more susceptible to disease or predation, as well as disrupt normal activities. Contaminants in waste discharges and drilling muds might indirectly affect sea turtles through food-chain biomagnification; there is uncertainty concerning the possible effect. Oil spills and oil-spill response activities are potential threats that may be expected to cause turtle deaths. Contact with, and consumption of oil and oil-contaminated prey, may seriously impact turtles. Sea turtles have been seriously harmed by oil spills in the past. The majority of OCS activities are estimated to be sublethal (behavioral effects and nonfatal exposure to intake of OCS-related contaminants or debris). Chronic sublethal effects (e.g., stress) resulting in persistent physiological or behavioral changes and/or avoidance of impacted areas could cause declines in survival or productivity, resulting in either acute or gradual population declines. The incremental contribution of the proposed action to cumulative impacts on sea turtles is slight.

4.8.3. Gulf Sturgeon Critical Habitat Designation

The Gulf sturgeon can be impacted by activities considered under the cumulative scenario, activities such as oil spills, alteration and destruction of habitat, and commercial fishing. The effects from contact with spilled oil will be sublethal and last for less than one month. Substantial damage to Gulf sturgeon critical habitat is expected from inshore alteration activities and natural catastrophes. The FWS (50 CFR 17) identified the following activities that may destroy or adversely modify Gulf sturgeon critical habitat:

1. Actions that would appreciably reduce the abundance of riverine prey for larval and juvenile sturgeon, or of estuarine and marine prey for juvenile and adult Gulf sturgeon, within a designated critical habitat unit, such as dredging; dredged material disposal; channelization; in-stream mining; and land uses that cause excessive turbidity or sedimentation.
2. Actions that would appreciably reduce the suitability of Gulf sturgeon spawning sites for egg deposition and development within a designated critical habitat unit, such as impoundment; hard-bottom removal for navigation channel deepening; dredged material disposal; in-stream mining; and land uses that cause excessive sedimentation.
3. Actions that would appreciably reduce the suitability of Gulf sturgeon riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, believed necessary for minimizing energy expenditures and possibly for osmoregulatory functions, such as dredged material disposal upstream or directly within such areas; and other land uses that cause excessive sedimentation.
4. Actions that would alter the flow regime (the magnitude, frequency, duration, seasonality, and rate-of-change fresh water discharge over time) of riverine critical habitat unit such that appreciably impaired for the purposes Gulf sturgeon migration, resting, staging, breeding site selection, courtship, egg fertilization, egg deposition, and egg development, such impoundment; water diversion; and dam operations.
5. Actions that would alter water quality within a designated critical habitat unit, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, such that it is appreciably impaired for normal Gulf sturgeon behavior, reproduction, growth, or viability, such as dredging; dredged material disposal; channelization; impoundment; instream mining; water diversion; dam operations; land uses that cause excessive turbidity; and release of chemicals, biological pollutants, or heated effluents into surface water or connected groundwater via point sources or dispersed non-point sources.
6. Actions that would alter sediment quality within a designated critical habitat unit such that it is appreciably impaired for normal Gulf sturgeon behavior, reproduction, growth, or viability, such as dredged material disposal; channelization; impoundment; in-stream mining; land uses that cause excessive sedimentation; and release of chemical or biological pollutants that accumulate in sediments.
7. Actions that would obstruct migratory pathways within and between adjacent riverine, estuarine, and marine critical habitat units, such as dams, dredging, point-source-pollutant discharges, and other physical or chemical alterations of channels and passes that restrict Gulf sturgeon movement.

If any of the above were to occur and result in damage to Gulf sturgeon critical habitat, it is expected that the Gulf sturgeon will experience a decline in population sizes and a displacement from their current distribution that will last more than one generation. Deaths of adult sturgeon are expected to occur from commercial fishing. The incremental contribution of the proposed action to the cumulative impact is

negligible because the effect of contact between sale-specific oil spills and Gulf sturgeon is expected to be sublethal and last less than one month.

4.8.4. Snowy Plover

The cumulative analysis considers the effects of impact-producing factors related to the proposed action; prior and future OCS sales; State oil and gas activity; crude oil imports by tanker; and other commercial, military, and recreational offshore and coastal activities that may occur and adversely affect snowy plover. It is expected that the effects will be detrimental to the snowy plover; however, the majority of effects from the major impact-producing factors on the snowy plover are sublethal (behavioral effects and nonfatal exposure to or intake of OCS-related contaminants or discarded debris) and will usually cause temporary disturbances and displacement of localized groups inshore. The net effect of habitat loss from oil spills, new construction, and maintenance and use of pipeline corridors and navigation waterways will reduce the overall carrying capacity of disturbed area(s) in general. The incremental contribution of the proposed action to the cumulative impact is negligible because the effects of the most probable impacts, such as sale-related operational discharges and helicopters and service-vessel noise and traffic, are estimated to be sublethal with some displacement of local individuals or groups. It is expected that there will be little interaction between OCS-related oil spills and the snowy plover. The cumulative effect on snowy plover is expected to result in declines in the numbers of birds that form localized groups.

4.8.5. Liquified Natural Gas Projects

In August 2003, USCG published the Final EIS for the Port Pelican Deepwater Port License Application (USCG, 2003). The following information was taken from the Executive Summary of the EIS, which describes a combination of adverse and beneficial impacts of varying duration that may occur as a result of implementation of the proposed project. The EIS for Port Pelican can be obtained from the Department of Transportation website, http://dms.dot.gov, using Docket Number USCG-2002-14134.

> ***Water Quality.*** A combination of long-term and short-term, minor adverse impacts on water quality would be expected. These impacts would occur in both marine and coastal waters. Short-term, minor adverse impacts would occur during the installation of the proposed terminal and Pelican Interconnector Pipeline (PIPL) as a result of the resuspension of sediments. No effects on water quality would be anticipated in connection with the integrity testing of the proposed PIPL and terminal piping. The open-rack vaporizer (ORV) water discharge would have several impacts on water quality within 328 ft (100 m) of the proposed terminal, including decreased water temperature, increased turbidity, and increased dissolved oxygen content. Anchoring of liquefied natural gas carriers (LNGC) in the applicant's proposed anchorage area in proximity to the terminal may have short-term, minor adverse effects on water quality. Spills of hazardous substances such as hydrocarbons (petroleum, oils, and lubricants) may result in direct adverse effects on water quality, which are expected to be minor and short in duration. No adverse impacts on water quality would be expected from an accidental spill or release of LNG since the LNG would spread on the surface of the water, gasify, and rapidly dissipate. Long-term, minor adverse effects would be expected in connection with activities in coastal waters. Discharge from vessels and onshore facilities would be the primary sources of impacts on water quality in coastal waters.
>
> ***Biological Resources.*** Short-term and long-term, minor adverse effects on biological resources would be expected. These impacts would occur in connection with the construction and operation of Port Pelican, potential LNG spills, and several miscellaneous circumstances associated with the project (e.g., use of the gravity based systems (GBS) as an artificial reef, increased vessel traffic, and hazards posed by debris in the marine environment). Effects would also occur with respect to commercial and recreational fisheries. The establishment of the 500-m safety zone around the proposed terminal would result in an extremely localized, long-term loss of commercial fisheries.

This project, however, would not displace recreational fishing in the vicinity of the deepwater port for its expected 40-year operational period because there is currently no such recreational activity at the proposed site. The placement of the GBS's in the GOM would potentially create an artificial reef, resulting in minor but temporary beneficial impacts on commercial and recreational fisheries stocks. The proposed action is not likely to adversely affect federally listed threatened and endangered species that occur in proximity to or migrate through the project area. Minor adverse impacts may occur from the impingement and entrainment of ichthyoplankton (fish eggs and larvae); however, none of the potential impacts on essential fish habitat (EFH) would be expected to result in population-level effects or a reduction in biomass for any stock. None of the expected impacts on biological resources would be significant.

Cultural Resources. No effects on cultural resources would be expected. Geotechnical surveys of the proposed terminal area and PIPL route recorded several unidentified anomalies. These anomalies have not been evaluated to determine their cultural significance; however, all of the anomalies will be avoided during terminal and PIPL installation activities. Avoidance of the unidentified anomalies and adherence to unanticipated discovery procedures and mitigation measures would ensure that no adverse effects would occur to significant cultural resources.

Geological Resources. Local short-term minor and long-term negligible adverse effects to geological resources would be expected. Through a geophysical study of the proposed terminal area, preferential siting of the GBS's would be employed, thereby minimizing the amount of disturbance to undesirable seafloor sediments and reducing the effect of local geologic hazards. The effects would be associated with installation and operation of the proposed terminal (LNGC anchoring and sediment displacement), installation of the PIPL (sediment displacement), and decommissioning.

Socioeconomics. Long-term and short-term, minor adverse effects and short-term, minor beneficial effects would be expected on socioeconomic conditions. These effects would be associated with fabrication and installation of the PIPL and commercial fisheries. The establishment of the 500-m safety zone around the proposed terminal would result in an extremely localized long-term loss of commercial fisheries. A majority of the proposed project would occur in GOM waters. Impacts on residential areas, regardless of ethnic and minority composition, would be avoided. The proposed action would not cause adverse environmental impacts or disproportionate human health effects on minority and/or low-income communities.

Recreation. Long-term, minor adverse and minor beneficial impacts on recreation would be expected. No impacts on shore-related recreational activities would be anticipated. This project, however, would not displace recreational fishing in the vicinity of the deepwater port for its expected 40-year operational period because there is currently no such recreational activity at the proposed site. The placement of the GBS's in the GOM would potentially create an artificial reef, resulting in minor beneficial impacts on commercial and recreational fisheries stocks.

Transportation. Long-term, minor adverse impacts on transportation would be expected. These effects would occur in connection with increased LNGC use of established fairways, LNGC traffic from existing fairways to the proposed terminal location along primary and secondary recommended routes, and supply vessels and helicopters transiting the GOM between Intracoastal City, Louisiana, and the proposed terminal location.

Air Quality. Long-term, minor adverse impacts on air quality would be expected. These impacts would be associated primarily with operation of equipment on the terminal. Criteria pollutant emissions would not exceed annual USEPA-permitted

emissions levels. In addition, based on the emissions rate and the distance to the nearest nonattainment areas, the proposed action would not adversely affect the air quality of onshore nonattainment areas.

Noise. Long-term and short-term minor adverse effects to the noise environment would be expected. These impacts would arise in facilities construction, installation, and operation. Increased noise levels would result from the proposed terminal and PIPL installation, and could adversely impact fish, sea turtles, marine mammals, and seabirds. However, any such impacts are expected to be minimal and temporary. Noise generated during operation of the proposed terminal as well as noise generated from helicopter and vessel traffic could impact biological resources. However, any such impacts are expected to be minor. Noise generated at the proposed terminal operations would not affect noise sensitive receptors onshore due to the distance from the shore. Support vessels and helicopters would have the potential to affect noise sensitive receptors onshore.

Reliability and Safety. No effects would be expected in connection with reliability and safety issues having potential to affect project personnel, the public, or the environment.

The USCG is currently preparing an EA on the proposed Energy Bridge project described in **Chapter 4.3.1**. It is expected that the impacts would be similar to those described for the Port Pelican project; however, there would be some differences due to the greater distance from shore and type of facility.

4.8.6. Sand Dredging Projects

The potential adverse impacts of the proposed New Cut/Whiskey Island beach nourishment and Morganza levee projects are impacts to historical archaeological resources and space-use conflicts on the Federal OCS due to 25 mi (40 km) of existing oil and gas pipelines that cross or border the sand borrow polygons and the dredging operation. Both potential impacts can be addressed by mitigations. All other physical, biological, and socioeconomic resources are expected to experience minimal to no impacts from these proposed projects.

Ship Shoal has an estimated 216 mi^2 of crest area with sand thickness >1 m. Estimates of the amount of sea bottom disturbed to remove 15.5 million yd^3 of sand ranges from <900 ac (1.4 mi^2) to >6,400 ac (10 mi^2) for the three projects; neither the volume nor the estimated area of bottom disturbed are significant. Modeling indicates that very large volumes of sand could be removed from Ship Shoal with no adverse affects on sensitive coastal resources.

Large numbers of individual invertebrates, bivalves and snails primarily, and infaunal organisms would experience lethal effects of exposure or transplantation into incompatible environments as they are swept up by the dredge draghead, transported, and redeposited onshore. Although recolonization of disturbed areas would be substantial for the number of individuals, species, and biomass of benthic infauna in 1-3 years, recovery of community composition and trophic structure of invertebrates, demersal fish, and shellfish may take longer. No estuary dependent or demersal fish species requires Ship Shoal or a sandy bottom substrate to sustain its life cycle, although estuary-dependent fish and demersals can be found there. No managed fish species occupying the Louisiana continental shelf would be potentially impacted by the proposed sand dredging projects.

The beach nourishment projects would take place within critical habitat for wintering piping plovers, but the New Cut and Whiskey Island beach nourishment projects are scheduled to take place in the spring of 2004 after wintering groups have departed. This schedule provides the best seasonal window for the proposed beach nourishment activities. The Morganza sand storage areas are inland from the barrier island shoreline attractive to plovers.

Adverse impacts are possible on OCS offshore infrastructure as a result of potential damage to OCS pipelines during, or as a result of, the dredging operation. Oil spills as a result of a damaged pipeline are analyzed in **Chapter 4.4** of the multisale EIS. Also possible are indirect impacts caused by exhumation of pipeline segments making them more vulnerable to both the dredging operation itself and to other potential hazards. Direct and immediate impacts can take place by one or a combination of the following events or conditions: (1) exhuming a pipeline while removing sand; (2) snagging or damaging a pipeline

with the dredging draghead; and (3) damaging a pipeline's corrosion protection, thereby increasing the chance for early failure or the need for replacement earlier than would otherwise have been contemplated. If exhumation does not directly impact the pipeline during the dredging operation, indirect impacts can result from a pipeline becoming more vulnerable to damage by subsequent and unrelated activities, such as: (1) snagging on fishing nets; (2) rupturing or damage caused by anchor drops; and (3) exposing the pipeline to position-shifting or rupture potential during high seas in hurricanes and storms. No impacts on existing offshore OCS surface platforms, subsea production structures, or wells would be expected because they do not occur within proposed sand borrow sites. The potential impacts of the proposed projects on existing OCS pipelines would be avoided if mitigation for a 500-ft (152-m) required set-back distance is put in place for dredging sites and existing OCS infrastructure.

Impacts are possible on historical archaeological resources because knowledge of the locations of all known shipwrecks in the relatively shallow waters of the inner continental shelf is incomplete. The potential impacts of the proposed projects on historical archaeological resources can be avoided if a remote-sensing survey is conducted in advance of the proposed dredging activities. Archaeological surveys in each polygon have been undertaken in 2003 as mitigation for impacts on unknown shipwreck locations.

5. CONSULTATION AND COORDINATION

5.1. SCOPING FOR THE ENVIRONMENTAL ASSESSMENT FOR THE CENTRAL PLANNING AREA'S PROPOSED LEASE SALE 190

External Scoping: On June 4, 2003, MMS published a *Federal Register* notice announcing the preparation of this EA. In the notice, MMS requested that interested parties submit comments regarding any new information or issues that should be addressed in the EA. The comment period closed on July 7, 2003. No responses were received.

Although the scoping process was formally initiated by the publication of the Notice to Prepare the EA, scoping efforts and other coordination meetings continue throughout the lease sale process. The following are examples of the efforts conducted since the publication of the multisale EIS:

- To ensure conformance with State Coastal Zone Management (CZM) program policies and local land-use plans, MMS prepares appropriate consistency documents for each proposed OCS lease sale. In November 2002, MMS sent the Consistency Determination (CD) for CPA Lease Sale 185 to the Gulf State governors and to the head of each State's CZM group. The Gulf States confirmed MMS's Consistency Statement. The State of Texas determined that it no longer requires Federal consistency review of CPA lease sales.
- On January 8 and 9, 2003, public hearings were held on the Draft EIS for EPA Lease Sales 189 and 197 (USDOI, MMS, 2003b) in New Orleans, Louisiana, and Mobile, Alabama.
- The GOM Region held and participated in several meetings during the past year, which gave EIS analysts an opportunity to attend technical presentations and meet with Federal, State and local agencies; industry; MMS contractors; and academia. The MMS held the GOM Region's annual Information Transfer Meeting in January 14-16, 2003. Sessions pertained to MMS's GOM OCS oil and gas program, as well as regional environmental, social, and economic concerns, and current OCS industry activities and technologies. The MMS co-hosted the International Offshore Pipeline Workshop on February 26-28, 2003, which brought together worldwide experience in operating and regulating offshore oil and gas activities in order to identify/disseminate pipeline issues and knowledge for continued safe and pollution free operations. On June 1-3, 2003, MMS participated in the Oceanology International Americas conference in New Orleans, Louisiana. The conference incorporated the following disciplines: marine science, technology, operational oceanography, policy, and education.

- On May 14, 2003, the Louisiana Sand Management Working Group, composed of Federal, State, and local authorities, academia, and industry, met to provide advice to MMS relative to the long-term use of Federal sand offshore Louisiana. Louisiana's coastal landloss problem continues at a rate of more than 30 mi^2 per year severely affecting the storm buffering capacity and the protection that nearshore barrier islands provide to human populations, oil and gas infrastructure, inland bays, estuaries, and wetlands. A major concern expressed by Louisiana is the potential conflict created by emplacement of oil and gas infrastructure in areas of rich sand deposits. The MMS is currently evaluating the issue. **Chapter 4.1.3.2.2** of the multisale EIS discusses MMS's Sand Resources Programs.
- In June 2003, MMS requested the Gulf States' review MMS's GOM Region Studies Development Plan for FY 2004-2006. On July 16, 2003, comments were received from the Louisiana Department of Natural Resources.

Internal Scoping: Internal scoping is an ongoing activity for all environmental projects. Part of internal scoping involved reviewing resource estimates and oil spill modeling results used in the preparation of the multisale EIS to determine if they are still valid. The GOM Region's Office of Resource Evaluation confirmed that the oil and gas resource projections and associated activities remain within the range of those projected by MMS for a "typical CPA lease sale." The MMS conducted a formal oil-spill risk analysis (OSRA) to support the multisale EIS. The Headquarters' OSRA group confirmed that results from the OSRA model summarized in the multisale EIS and presented in a separate report (USDOI, MMS, 2002d), are still valid for the proposed lease sale.

5.2. CONSULTATION AND COORDINATION CALENDAR

A complete description of all consultation and coordination activities and meetings is included in Chapter 5 of the multisale EIS. A brief summary of these events follows:

Multisale EIS Process

September 12, 2001	The Call for Information/Notice of Intent (Call/NOI) for the proposed 2003-2007 CPA and WPA lease sales was published in the *Federal Register*. The required 30-day comment period closed on October 12, 2001. Additional public notices were distributed via newspaper notices, mailed notices, and the Internet. The MMS received four comment letters in response to the Call. Ten written scoping letters were received in response to the NOI.
October 25-22, 2001	The MMS held scoping meetings in Galveston and Houston, Texas, New Orleans, Louisiana, and Mobile, Alabama to receive comments on the Draft EIS for the proposed 2003-2007 CPA and WPA lease sales. A summary of comments presented at the scoping meetings is provided in Chapter 5.3 of the multisale EIS.
April 15 and 17, 2002	The MMS, by memorandum to FWS (April 15, 2002) and NOAA Fisheries (April 17, 2002), requested formal Section 7 consultation for CPA Lease Sales 185, 190, 194, 198, and 201, and WPA Lease Sales 187, 192, 196, and 200. The consultation included all aspects of oil and gas exploration, development, production, and abandonment activities. The FWS concluded that the proposed actions are not likely to jeopardize the continued existence of listed species under FWS jurisdiction (whooping crane, Gulf sturgeon, brown pelican, Alabama beach mouse, Perdido Key beach mouse, loggerhead sea turtle, piping plover, and Kemp's ridley sea turtle) and are not

likely to destroy or adversely modify their designated critical habitat, if any. For each species with designated critical habitat, the adverse effects that may occur to critical habitat would be temporary in nature and of low probability. The NOAA Fisheries concluded that implementation of the proposed actions will adversely affect, but not likely jeopardize, the continued existence of the sperm whale; leatherback, green, hawksbill, Kemp's ridley, and loggerhead sea turtles; and the Gulf sturgeon.

April 30–May 2, 2002 The MMS held public hearings in Houston, Texas; New Orleans, Louisiana; and Mobile, Alabama, to receive comments on the multisale EIS for CPA Lease Sales 185, 190, 194, 198, and 201, and WPA Lease Sales 187, 192, 196, and 200. One person attended the Houston hearing, but no comments were presented. Seven people attended the New Orleans hearing. Three individuals presented comments, which were summarized in Chapter 5.5 of the multisale EIS. There were no attendees at the Mobile hearing.

November 2002 The MMS completed and filed the Final EIS for CPA Lease Sales 185, 190, 194, 198, and 201, and WPA Lease Sales 187, 192, 196, and 200 (multisale EIS) with USEPA. The MMS revised the document using information presented at the hearings and as a result of comments received on the Draft EIS (See Chapter 5.7 of the multisale EIS for a complete discussion of comments and responses.).

CPA Lease Sale 190 EA Process

June 4, 2003 The MMS published a Notice of Preparation of an EA on proposed Lease Sale 190. In the notice, MMS requested interested parties to submit comments regarding any new information or issues that should be addressed in the EA. No comments were received.

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The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.