



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Silver Spring, Maryland 20910

NOV 13 2006

James F. Bennett  
Branch of Environmental Assessment  
Minerals Management Service  
Department of Interior  
381 Eldon Street  
Herndon, Virginia 20170

Re: Draft Environmental Impact Statement for the Proposed Outer Continental Shelf Oil and Gas Leasing Program: 2007-2012

Dear Mr. Bennett:

The Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA) is pleased to provide comments on the Draft Environmental Impact Statement (DEIS) of the lead agency, U.S. Department of Interior, dated September 1, 2006 for the Proposed Outer Continental Shelf Oil and Gas Leasing Program: 2007-2012. According to the DEIS, the Department of Interior, Minerals Management Service is proposing a five-year plan to offer areas of the Federal Outer Continental Shelf (OCS) for lease for oil and natural gas exploration and development.

The comments and recommendations enclosed are based on NOAA's National Ocean Service's (NOS) and National Marine Fisheries Service's (NMFS) special expertise and responsibility under the Coastal Zone Management Act, the National Marine Sanctuaries Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, and the Marine Mammal Protection Act.

Sincerely,

(for) *Donna Witting*  
John H. Dunnigan  
Assistant Administrator

Enclosure

## CONTENTS

1. *Introduction*
2. *General*
3. *Affected Environment*
4. *Cumulative Impacts*
5. *Mitigation Measures*
6. *Consultation Processes*
7. *Recommendations*
8. *Specific Comments on Sections*

### 1.0 INTRODUCTION

NOAA understands that the EIS will be used for high level planning and assessment purposes guiding future decisions about potential lease sales. As such, NOAA is providing the following comments with the understanding that future, regionally focused and/or site-specific plans will require an increased level of detail and consultation regarding NOAA trust resources.

The 5-Year OCS Oil and Gas Leasing Program EIS for 2007-2012 cannot predict specific oil and gas activities that will be undertaken; however, lease sale, exploration, development, and/or production activities ultimately resulting from the 5-Year plan will likely require ESA and EFH consultations as more specific plans are developed. NOAA anticipates working closely with MMS on future environmental documentation and compliance related to Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultations for regionally focused and/or site-specific actions, applications for Marine Mammal Protection Act (MMPA) authorizations, and NMSA 304(d) consultations for activities in or near national marine sanctuaries.

### 2.0 GENERAL

- 1) The Final EIS (FEIS) could be improved by re-working the description of the Proposed Action and the suite of alternatives presented. The FEIS should clarify the purpose and need in greater detail to describe the benefits to states and the nation of developing OCS resources. The FEIS should also describe the screening process used to eliminate OCS planning areas from consideration as alternatives.
- 2) While NOAA does not, at this time, have any recommendations for a preferred alternative, the agency does prefer alternatives that limit impacts to NOAA trust resources, such as those set forth in Alternatives 2 and 5 for Alaska.
- 3) NOAA recommends that MMS develop environmentally protective conditions, mitigation

measures, or actions to minimize and avoid impacts to listed species and critical habitat that could be applied to the program as a whole and to conditions of sales in a geographic area, such as methods for minimizing impacts from pile driving or seismic activities (Appendix C – Assumed Mitigation Measures).

Seismic exploration requires the generation of loud, low-frequency sound in the water column. Consideration should be given to the impacts of pre-lease sale and post-lease sale seismic surveys on protected species (species protected under the ESA and the MMPA), and/or on sanctuary or marine monument resources. Additionally, NOAA recommends that contributions to increases in ambient sound levels and cumulative impacts resulting from all major sources of sound be provided (e.g., pile driving, vessel operation, platform noise, drilling, and construction).

- 4) The DEIS discussion of potential impacts on EFH and other marine resources that may occur as a result of future lease sale activities is general in nature. As such, it does not constitute a complete EFH assessment and would not be useful in assessing impacts of this project on EFH.

NOAA's comments within this review point out areas for elaboration to set the context for future consultation. NOAA will review and comment on subsequent environmental documents developed by MMS, and NMFS may provide EFH conservation recommendations on specific plans for exploration, development, operation, production, platform removals, pipeline rights-of-way, and similar project-specific proposals to ensure conservation of marine resources and habitats.

- 5) While much of the planning is for exploration in the offshore, support and infrastructure development is also necessary on land. Permafrost in the Alaska Arctic is an integral component of the habitat critical to marine mammals and coastal fish. There is little experience either restoring or creating permafrost so it is imperative that oil and gas activities confine their operations to the smallest footprint and remove wastes that can penetrate permafrost and become trapped in the sediments or be transported into the sea. Similarly, human wastes and refuse should be transported out of the Arctic to prevent transfer of pathogens and consumption of plastics and contaminants by marine birds, marine mammals and their prey. According to a recent National Academy of Science study, many existing leases are not bonded to ensure restoration of habitat after completion of operations. NOAA recommends that MMS require the posting of a bond for all lease sales, subject to applicable authority.
- 6) The Energy Policy Act contains several provisions on Methane Hydrates. MMS' Notice of Intent did not appear to include Methane Hydrates in the 5-Year Oil and Gas Leasing Program for 2007-2012. With the emergence of natural gas sources that might be recovered by methods other than drilling, the 5-Year Program for 2007-2012 should be expanded to cover potential new sources. Exploration and recovery methods used for Methane Hydrates could have significant impact on the sea bed, fisheries management, and change the demand for NOAA mapping products. MMS should state its intention to either include or exclude Methane Hydrates from the 5-Year Program, and provide a point of contact in MMS for

further questions on Methane Hydrates.

- 7) NOAA recommends that MMS include additional information in the FEIS related to the following major topics:
- Anticipated activities and their impacts within lease sales areas.
  - Mitigation and monitoring measures for impacts on protected species and habitat.

### **3.0 AFFECTED ENVIRONMENT**

MMS should include a description of EFH, federally-managed fishery resources, and protected and listed species, as well as any national marine sanctuaries or other marine protected areas, present in or near areas identified for potential lease sales and any expected adverse impacts to those resources.<sup>1</sup>

Please note that EFH descriptions have changed since the development of the previous 5-Year plan. Please refer to NOAA's EFH website for questions regarding EFH description information: [http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/desc\\_ident.htm](http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/desc_ident.htm)

### **4.0 CUMULATIVE IMPACTS**

The DEIS provides a description of the environment(s) in which this program is proposed. However, the FEIS would be enhanced by addressing impacts of the program's proposed actions on coastal and marine species and habitat. This is particularly relevant to the issue of cumulative impacts.

NOAA recommends that MMS consider the cumulative impacts of proposed activities under the 5-Year OCS Oil and Gas Leasing Program FEIS for 2007-2012. NOAA further recommends that MMS provide a detailed description of all the actions that would likely occur from the implementation of this lease sale program. Consideration of these activities collectively would help illuminate cumulative impacts. These activities include:

- seismic activities (geological and geophysical surveys),
- construction activities (anchoring, drilling, structure emplacement, explosives),
- pipeline emplacement,
- structure removal,
- vessel traffic,
- accidental oil spills (blowouts and response procedures)
- pollutant discharges (e.g., low-level spillage, oil spill emissions, light),
- dredging,
- noise associated with all actions,

---

<sup>1</sup> In some areas proposed under the 5-Year OCS Oil and Gas Leasing Program DEIS for 2007-2012, adequate and necessary baseline environmental information that would guide mitigation and/or protective recommendations has yet to be obtained. Large-scale changes within certain ecosystems also underscore the need for an updated and comprehensive environmental inventory and assessment region relative to potential impacts associated with oil and gas leasing, exploration, and development. To adequately address these gaps in available information, we request that both NOAA and MMS collaborate to assess potential impacts.

- liquid and solid waste disposal (ballast, drill muds, and sanitary wastewater), and
- invasive species introductions.

An examination of cumulative impacts, for example, could include consideration of impacts based on all lease sales and all activities that are likely to occur in these sites. While individual projects will be reviewed on a site by site basis or at each lease sale, the program must consider likely total and cumulative impacts. NOAA recommends continued early/informal consultation between MMS and NOAA on this program.

## **5.0 MITIGATION AND MONITORING**

The DEIS mentions mitigation and monitoring, but does not clearly spell out a process for accomplishing this task. Describing and analyzing mitigation and monitoring measures in the FEIS may help facilitate, and possibly streamline, future consultation processes.

Rather than waiting for individual lease sales and having each applicant/owner develop and design mitigation measures, NOAA recommends that MMS recommend similar conditions to all potential lessees during the pre-application process. These conditions would help minimize and/or avoid impacts to marine resources managed by NOAA.

As a recommendation, this additional information on proposed actions and effects of the actions may be further developed in Section IV, K of the DEIS. A summary table or chart of the actions is also recommended.

NOAA recommends that MMS provide details describing the previously listed anticipated activities, including intensity, duration, and location (See Cumulative Impacts). This level of specificity would allow MMS to develop appropriate mitigation and monitoring measures.

## **6.0 CONSULTATION PROCESSES AND OTHER REQUIREMENTS**

### ***6.1 Endangered Species Act***

While the EIS considers the 5-Year planning phase of the leasing program, MMS acknowledges and NOAA agrees that future actions related to specific lease sales, for example, may affect listed species or their critical habitat, thereby warranting ESA consultation. As such, NMFS requests that following completion of the planning phase, MMS coordinate with NMFS on future steps in the leasing program and continue working with NMFS to collect data and analyze impacts to listed species or critical habitat.

### ***6.2 National Marine Sanctuaries Act***

The National Marine Sanctuaries Act (NMSA) (16 U.S.C. § 1434(d), or “304(d)”) requires federal agencies to consult with the Secretary of Commerce regarding any action or proposed action, including private activities authorized by licenses, leases, or permits, that is likely to destroy, cause the loss of, or injure any sanctuary resource. Under 304(d), federal action agencies must make a determination as to whether the activity in question, whether conducted inside or outside of a national marine sanctuary, is likely to injure sanctuary resources.

Consultation begins when an agency contemplating action (action agency) provides the Secretary of Commerce with a written statement describing the action and its potential effects on sanctuary resources. This statement must be provided no later than 45 days before final approval of the action, unless the action agency and Secretary agree to a different schedule. The Secretary has 45 days in which to review this statement. If it is determined that the action is likely to destroy, cause the loss of, or injure a sanctuary resource, the Secretary shall “recommend reasonable and prudent alternatives, which may include conduct of the action elsewhere, which can be taken by the Federal agency in implementing the agency action that will protect sanctuary resources.”<sup>2</sup>

NOAA recommends that MMS look at both the 5-Year OCS Oil and Gas Leasing Program for 2007-2012, and at any specific projects developed under the plan in future, in order to determine whether consultation under 304(d) is appropriate.

### ***6.3 Coastal Zone Management Act***

Through the 2006 CZMA rulemaking, MMS informed NOAA that the 5-Year OCS Oil and Gas Leasing Program is a preliminary activity that does not set forth a proposal for action and thus, coastal effects cannot be determined at the 5-Year Program stage. If MMS still determines that coastal effects are not reasonably foreseeable at this preliminary stage, then MMS is not required to submit the 5-Year Program Plan to the coastal States for review under the Coastal Zone Management Act (CZMA) federal consistency provision. Accordingly, federal consistency review would be triggered by MMS conducting a particular OCS oil and gas lease sale under the plan.

NOAA recommends that MMS coordinate with the coastal States on the inventory of OCS oil and gas resources, on any rulemaking to implement the alternative energy provisions now contained in the OCS Lands Act as a result of the Energy Policy Act, and on any discussions regarding a possible comprehensive ocean management initiative. NOAA is available to assist MMS in coordinating with the coastal States on these matters.

## **7.0 RECOMMENDATIONS**

### ***7.1 Magnuson-Stevens Act and Endangered Species Act***

The planning areas identified under the 5-Year OCS Oil and Gas Leasing Program EIS for 2007-2012 include areas designated as EFH under the Magnuson-Stevens Act (MSA) as well as areas designated as critical habitat for listed species under ESA. Therefore, NOAA recommends that MMS discuss the following in the FEIS:

1. Summarize consultation requirements per the MSA and ESA along with their implementing regulations. NMFS will advise in this regard if requested.
2. Describe how consultations for future, site-specific activities that may adversely affect EFH and listed or protected species will be carried out. The discussion should be standardized across all lease sales.

---

<sup>2</sup> 16 U.S.C. § 1434(d)(2).

## ***7.2 The Use of Seismic Technology in or Near Marine Mammals, Endangered Species or Sensitive Areas of the Marine Environment***

Because a key data set in evaluating the oil and gas potential of a site is seismic reflection profiles, many of which have been collected through the years, NOAA assumes that this technology will be used in the implementation of this plan. Seismic exploration requires the generation of loud, low-frequency sound in the water column. Recent concerns on the impact of these operations on marine life, and marine mammals in particular, have led to greatly restricted permits for seismic exploration. The need to limit seismic testing places increased importance on more effectively using existing seismic reflection data which is scattered among NOAA, U.S. Geological Survey, and various academic institutions. This information should be compiled, archived and made more easily accessible.

NOAA is concerned about the use of seismic technology associated with oil and gas exploration on the outer continental shelf in or near sensitive areas of the marine environment such as national marine sanctuaries or where marine mammals and/or other endangered species may be located. NOAA requests that where appropriate, MMS consult with NOAA to identify ways to reduce potential adverse impacts to these areas and resources from the use of seismic technology. These consultations are important both to address any potential conflict between proposed seismic surveys and existing prohibitions against oil or gas exploration by any person (including federal agencies) that apply in most national marine sanctuaries, and to minimize or eliminate adverse impacts on sanctuary or marine mammal resources or qualities, when conducting an inventory and assessment within or near the boundaries of any national marine sanctuary or near marine mammals.

The comprehensive inventory should also include long-term funding to support a consolidated compilation, data rescue, and data archiving effort for all reflection seismic data collected in United States waters. As stated in the Notice of Intent, existing geological characterizations of the regions is a specific factor to be considered.

## ***7.3 Other Uses of the Sea and Seabed***

In developing the 5-Year OCS Oil and Gas Leasing Program for 2007-2012, MMS sought information related to other uses of the sea and seabed, including fisheries, navigation, military activities, navigation lanes, deepwater ports and a variety of energy projects. Given the timing of the release of this plan; as well as the many existing uses of the OCS and the variety of marine protected areas, the increase in proposals for Liquefied Natural Gas (LNG) terminals and offshore wind farms, and new interest in offshore aquaculture facilities; NOAA believes that the federal agencies, in coordination with the coastal States, should develop an ocean management regime that is comprehensive and not based on disparate federal programs. MMS' 5-Year Program for 2007-2012, combined with the need to establish the new alternative energy program under the OCS Lands Act, as mandated by the Energy Policy Act, present a timely opportunity to develop a more comprehensive ocean management regime. Developing such a regime could achieve greater predictability in determining appropriate and available locations for various OCS activities. Such upfront ocean planning could also help resolve user conflicts and could provide

greater assurance for locating various types of energy projects. As resources allow, NOAA encourages MMS to use the 5-Year Program for 2007-2012 to begin this dialogue and work in partnership with NOAA on a comprehensive ocean management process.

For example, NOAA's National Marine Sanctuaries Program, Marine Protected Areas Program, and other agency programs can contribute information on specific resources of distinct areas of the oceans. NOAA's Coastal Management Program can provide a direct link to the State coastal management programs and CZMA-related issues. NOAA's Coastal Services Center can provide information related to coastal observing systems, remote sensing and other technological services. NOAA's Ocean Exploration, National Undersea Research Program, and NOAA's Pacific Marine Environment Laboratory's undersea vents programs may be able to contribute information about the "geographical, geological and ecological characteristics" (and archaeological information) as well as "environmental sensitivity and marine productivity" of regions of the OCS. NOAA's Coastal Management, National Estuarine Research Reserve and Sea Grant programs should also be able to contribute information regarding coastal communities and economies.

## **8.0 SPECIFIC COMMENTS BY SECTION**

### ***Section III – Affected Environment***

#### **Atlantic**

Page III-209 and throughout – Given the current listing of the species, it is more appropriate to refer to right whales occurring in the Atlantic as "Northern" right whales rather than "North Atlantic" right whales.

Page III-209 – The most recent information on manatee sightings (from this past summer) indicate that at least one manatee traveled as far north as Massachusetts.

Pages III-210 – III-211 – The text describes that ESA-listed whales such as humpbacks and right whales use mid-Atlantic waters as a migratory corridor. While the text also mentions that the winter distribution of right whales is unknown, language should be added so as not to suggest that mid-Atlantic waters are strictly used by right whales (particularly pregnant females or females with calves) to and from the calving grounds. Also, with respect to humpback whales, some studies suggest that mid-Atlantic waters may be important habitat for juvenile humpback whales (Wiley et al 1995; Swingle et al 1993).

Page III-219 – Identifies Atlantic sturgeon as a "Threatened or Endangered Species." Atlantic sturgeon is not a Federally listed species. The same applies to a similar discussion on page IV-279.

Page III-219; Nonendangered Species – The section should include, for instance, a discussion of the forage base that supports the diverse multitude of organisms that live and pass through the area. An analysis of the forage base will give an indication of the productivity of the area, which is not currently emphasized in the section. The forage base is touched on under "Benthic Communities" (page III-230); however, NOAA recommends a more detailed discussion. The

section should discuss the ecological value of shellfish beds such as surf clams, ocean quahogs, and deep sea scallops found in the Mid-Atlantic Bight. The density of such beds, for instance, affects the colonization opportunity of other benthic organisms.

Page III-221 – Sea turtles are Federally listed and should be included in this section. The same applies to a similar discussion on page IV-279.

Page III-223 – The statement that Kemp’s ridleys are the most endangered of the sea turtles has been widely used but is somewhat subjective. Given the decline of leatherback sea turtles in the Pacific, and the generally positive trend information for Kemp’s ridley sea turtles, it may be more appropriate to express the status in a different manner. Text NMFS used in recent biological opinions is as follows: “The Kemp’s ridley is one of the least abundant of the world’s sea turtle species. In contrast to loggerhead, leatherback and green sea turtles which are found in multiple oceans of the world, Kemp’s ridleys typically occur in the Gulf of Mexico and the northern half of the Atlantic Ocean (USFWS and NMFS 1992). The only major nesting site for ridleys is a single stretch of beach near Rancho Nuevo, Tamaulipas, Mexico (Carr 1963).”

Page III-224 – The statement that the South Florida loggerhead subpopulation is stable could be misleading. Some reference should be given here to the most recent information on nesting for this subpopulation as well as a very brief statement on the use of nesting trends for assessing the status of loggerhead subpopulations (i.e., the caveats associated with a turtle with such a late age to maturity, the unknowns concerning whether nesting trends reflect the status of all age classes and sexes in the subpopulation, etc.).

## **Gulf of Mexico**

### *Essential Fish Habitat within the Gulf of Mexico Region*

The DEIS makes a number of references to the Gulf of Mexico Fishery Management Council’s 1998 Generic EFH Amendment to the Fishery Management Plans (FMP) of the Gulf of Mexico. Generic amendment number 3, published by the Gulf of Mexico Fishery Management Council in 2005, has superseded that EFH amendment<sup>3</sup>. The revised FMP provides revised EFH designations, identifies new habitat areas of particular concern, and contains updated fishery information for federally managed fisheries of the Gulf of Mexico. EFH information and citations throughout the DEIS should be updated to reference the 2005 amendment.

## **Alaska**

### *Risk and Exposure of Natural Disaster*

Section III discusses the potential for facility failure in the event of an earthquake or tsunami. Compared to all other lease sale areas, Alaska is much more likely to undergo a serious seismic event. All OCS associated infrastructure would be subject to this risk. The analysis should

---

<sup>3</sup> Gulf of Mexico Fishery Management Council. 2005. Final generic amendment number 3 for addressing Essential Fish Habitat requirements, Habitat Areas of Particular Concern, and adverse effects of fishing in the following fishery management plans of the Gulf of Mexico: Shrimp Fishery of the Gulf of Mexico, United States Waters; Red Drum Fishery of the Gulf of Mexico; Reef Fish Fishery of the Gulf of Mexico; Coastal Migratory Pelagic Resources (Mackerels) in the Gulf of Mexico and South Atlantic; Stone Crab Fishery of the Gulf of Mexico; Spiny Lobster in the Gulf of Mexico and South Atlantic; Coral and Coral Reefs of the Gulf of Mexico. Gulf of Mexico Fishery Management Council. Tampa, FL.

discuss such factors in more detail, including the related potential for spills and environmental catastrophe.

### *Section III.B.9.*

Page III-143 Includes a list of BSAI groundfish FMP species. This list inaccurately includes several species not covered by the BSAI FMP, such as Dungeness crab.

Page III-141 Refers to Habitat Areas of Particular Concern (HAPCs) but does not discuss how HAPCs fit within the assessment. MMS should consider deleting the HAPC reference here and inserting an HAPC discussion in Section B.III.12 Areas of Special Concern (see below).

Page III-145 References old EFH description information for salmon and scallops. Please update with current EFH description terminology. See [www.fakr.noaa.gov/habitat/efh](http://www.fakr.noaa.gov/habitat/efh), specifically Appendix D.3 of the EFH FEIS.

### *Section III.B.12. Areas of Special Concern*

#### EFH Conservation Areas

NMFS and the North Pacific Fishery Management Council have taken precautionary measures to restrict fishing activities in many areas to minimize the effects of bottom contact gear on EFH and benthic habitats. MMS should review this information in the EFH EIS and take into account potential impacts related to oil and gas development these areas.

#### Habitat Areas of Particular Concern

HAPCs are areas within EFH that meet certain considerations as to the habitat's importance, extent of human-induced degradation, developmental stress, or rarity (50 CFR 600.815(a)(8)). Several HAPCs exist in Alaska and information is found at <http://www.fakr.noaa.gov/analyses/efh/HAPCEa0406.pdf>. MMS should review this information and take into account potential impacts related to oil and gas development these areas.

### *Section IV – Environmental Consequences*

#### **Atlantic**

Page IV-260 – The single statement made for both humpback and right whales under part C. of this section again implies that use of mid-Atlantic waters by these species is minimal. It is correct to say that both humpback and right whales are known to congregate in waters further north; however, it is misleading to imply that their use of mid-Atlantic waters is minimal. The science is not refined enough to support this statement; therefore, the section should be rephrased to remove the indication that use of mid-Atlantic waters is minimal.

Page IV-260 – Regarding potential impacts to pinnipeds, it seems highly unlikely that any of the coastal areas adjacent to the identified lease area would be used by harbor, grey, harp, and/or hooded seals for pupping. MMS should consider revising this information in the FEIS.

Page IV-265 – The last sentence of the Conclusion (“With appropriate mitigation and

monitoring, no changes in distribution, population size, patterns of migration, or behaviors of marine mammals are expected”) does not appear to be supported by the text. MMS should describe the expected mitigation/monitoring measures that would help minimize impacts on marine mammals.

Page IV-276 *Development and Production* – MMS should discuss how exposed pipelines running from an extraction point offshore to a shore facility may inhibit the movement and migration of non-swimming bottom crustaceans such as lobsters. Also, an exposed pipeline would likely require a zone of exclusion from commercial trawlers. The FEIS should evaluate the impacts of these issues.

Pages IV-280 – Concludes, “Because fishery resources are widespread through the Mid-Atlantic Planning Area and the level of exploratory activity is projected to be minimal, impacts in the proposed sale area would only affect a very small portion of the total fish habitat (including EFH).” Since a complete and specific EFH assessment has not been conducted at this time, this determination cannot be substantiated. Should MMS undertake a drilling and extraction program, NMFS understands that a detailed EFH assessment will be prepared for each individual operation. The three paragraph discussion that follows the heading, “Development and Production”, should be expanded to discuss impacts from extraction and production.

Pages IV-284-IV-285 – Information should be included that addresses the effects of exploration, development, and production activities on sea turtle prey in the area. The mid-Atlantic area is known to include foraging habitat for all four of the sea turtle species listed. Substantial scientific literature indicates that inshore and nearshore waters (e.g., Chesapeake Bay, Delaware Bay, nearshore open ocean waters) are important foraging habitat for juvenile green, Kemp’s ridley, and loggerhead sea turtles. Given the importance of this habitat and its prey base for sea turtles, the potential impacts of the proposed activities on turtle prey should be discussed.

Page IV-345 *Cumulative Case* - Analysis is needed on the amount of activities that could occur from all OCS activities during the life of the proposed action and the potential affects to Federally-protected species and habitat. Other current and future federal actions such as the permitted activities in these regions should also be included in the analysis.

## **Gulf of Mexico**

Programmatic ESA consultations have been completed (structure removals) and are being conducted (geological and geophysical exploration) in the Gulf of Mexico. Any actions for which consultation has been completed should be summarized in the effects section (p. IV-41 to IV-42 for seismic, and p. IV-45 for structure removals), and considered in more detail in the cumulative effects section of the EIS.

### Page IV-44 - *Hypoxia and Discharges*

The FEIS should consider the effects of NPDES-permitted or non-regulated discharges on the hypoxic zone in the Gulf of Mexico. Special consideration should be given to organic discharges from platforms or vessels. Potential adverse impacts from discharges protected species, critical habitat, and the environment that sustains them, should be evaluated.

Page IV-57 - Gulf Sturgeon Critical Habitat and Pipelines

There is very little attention given to Gulf sturgeon critical habitat in the DEIS, particularly effects relating to primary constituent elements. Because Gulf sturgeon critical habitat is located in state waters, MMS lease sale actions are not expected to directly affect critical habitat, but may indirectly affect it by pipelines or other infrastructure-related actions resulting from a lease sale. NMFS and the U.S. Fish and Wildlife Service jointly designated Gulf sturgeon critical habitat on April 18, 2003 (50 CFR 226.214). Critical habitat is defined in section 3(5)(A) of the ESA as (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" is defined in section 3(3) of the ESA as the use of all methods and procedures that are necessary to bring any endangered or threatened species to the point at which listing under the ESA is no longer necessary.

As stated in the final rule designating Gulf sturgeon critical habitat, the following activities, among others, when authorized, funded or carried out by a federal agency, may destroy or adversely modify critical habitat:

- 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, in-stream 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.
- 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.

Pipeline construction and accidental spills, particularly in the CPA, may affect Gulf sturgeon or their critical habitat. Gulf sturgeon occurs between the mouth of Mississippi River and Tampa Bay, Florida. Seven critical habitat units are designated in estuarine and marine waters ranging from Lake Pontchartrain, Louisiana to Suwannee Sound, Florida. If most new structures in the GOM will connect to the existing pipeline infrastructure, some percentage of pipelines may pass through Gulf sturgeon critical habitat. To the extent that MMS has information available, NOAA recommends that MMS include additional information on the following:

- An estimate of the number of pipelines that may result from the lease sales.

- An estimate of the number of new pipelines that may make landfall and pass through Gulf sturgeon critical habitat.
- An estimate of the length of pipeline passing through critical habitat.
- The units of designated critical habitat that pipeline may pass through.

Although the exact area of disturbance expected from future pipeline placement and burial cannot be calculated until after lease sales are conducted, some effects to critical habitat can be anticipated. Possible actions that may result in destruction or adverse modification of critical habitat include, but are not limited to, dredging and jetting of sediments to lay the pipeline, the side-casting of sediments, anchoring of the jetting and lay barges, and dragging and sweeping of the anchor cables. For any pipelines in Gulf sturgeon critical habitat, an analysis of the effects of the pipeline on the PCEs of the critical habitat should be completed in fulfillment of future section 7 consultation requirements under the ESA.

Page IV-59 - Gulf Sturgeon Critical Habitat and Oil Spills

The DEIS concludes that an oil spill will not reach eggs and larvae of Gulf sturgeon, and will therefore have no effects. No analysis is provided for the potential of an oil spill affecting Gulf sturgeon critical habitat. The FEIS should take into consideration the magnitude of the effects associated with the chance of an oil spill contacting Gulf sturgeon critical habitat. Effects should be analyzed for each PCE in the FEIS. An analysis is also recommended to be completed for all potential sources of accidental spills. For a complete description of all Gulf sturgeon PCEs, please see 50 CFR 226.214.

Pages IV-68 The mitigation measures for explosive removal of offshore structures are out of date. A new programmatic biological opinion was issued on August 28, 2006, that contains newly implemented mitigation measures for these activities.

**Alaska**

*Marine Mammals*

Most cetaceans have shown few, if any, effects from exposure to spilled oil; however, northern fur seals are extremely sensitive to spilled oil. The FEIS should expand sections related to the risk of spilled oil (e.g., those related to facility failure and associated vessel support). An updated marine biological assessment should be completed that incorporates recent northern fur seal foraging, migratory, and population data. In addition, oil spill modeling and risk assessments should be updated with more recent physical oceanography and marine mammal telemetry data to determine the nature, extent and potential for effects.

*Scientific Information*

An evaluation of new lease sales in Alaska requires an updated environmental analysis. Some of the marine data sources cited in the DEIS for Alaska are dated. Many of the citations reference studies from previous MMS lease sale investigations such as OCSEAP. MMS should consider using updated references provided in the MMS programmatic environmental assessment completed in 2006 for seismic surveys conducted this year.

### *Ordnance Hazards*

The DEIS indicates that there are no ordnance hazards in the NAB, CIPA, or CSPA. Several ordnance hazard areas exist throughout the OCS in Alaska. MMS should consult the United States Coast Pilot for Alaska No. 9, Pacific and Arctic Coasts Alaska.

### *Oil Spill Risk*

The DEIS states that impacts of oil spills on water quality, fish, coastal habitats, seafloor habitats, anadromous fish habitat, and essential fish habitats will be adverse. A spill in marine waters could impact valuable fisheries, severely degrade marine and coastal habitats, and have long-term consequences for numerous communities. The FEIS should examine such potential effects and worst case scenarios in more detail, including socioeconomic impacts on industries and communities. Data exist to evaluate these worst case scenarios, such as a spill event during the summer salmon fisheries or winter crab fisheries.

### *Liquefied Natural Gas (LNG) Facilities*

The DEIS briefly mentions LNG facilities (Page IV - 408). LNG facilities may impact marine and coastal environments due to warming water intakes in proximity to sensitive egg, larval, and juvenile fish concentrations or nursery areas. For Alaska, especially the NAB, circulation patterns transport sensitive life stages to estuary and nearshore areas along the Alaska Peninsula. MMS should identify the potential for LNG terminals in such areas.

### *Fisheries*

Several of the nation's highest value commercial fisheries (crab, salmon, groundfish) occur in the NAB area, more commonly known as Bristol Bay and the Bering Sea shelf. The DEIS acknowledges that oil production and infrastructure would cause use conflicts with fishing activities, restrict areas available to fish, and significantly increase the risk of fish exposure to oil. Further, the DEIS mentions plans to implement a protection of fisheries requirement for lessees that includes working with fishery organizations and port authorities. Due to the value of Alaska fisheries, NOAA believes this is an important component of future oil and gas development activities.

The statement "*the single largest activity likely to effect fishery resources within Alaska waters would be the commercial fishing industry*" (Section IV, page IV-423) is unsupported by the analysis in the DEIS. Commercial fisheries in Alaska incorporate numerous measures to reduce environmental impacts, including sustainable harvest limits, habitat protection measures, and efforts to decrease bycatch.

### *Remediation*

Even at this programmatic stage, the analysis should discuss remediation techniques and removal of infrastructure following any OCS development. These issues should be included in the cumulative impacts section.

Page IV-124 - This section should discuss the occurrence of significant numbers of endangered North Pacific right whales in the southeastern Bering Sea since 1996. These remarkable sightings indicate a large portion of the remaining right whales regularly occupy these waters for

seasonal feeding and perhaps other life history requirements. MMS should provide an analysis of potential impacts of seismic activity on North Pacific right whale, and summarize research on seismic affects on bowhead whales in the Alaskan Beaufort Sea. MMS should also consider the growing body of literature describing the distribution and behavior of right whales in the southeastern Bering Sea.

## **APPENDIX C – ASSUMED MITIGATION MEASURES**

NOAA recommends that MMS further develop and analyze the mitigation measures. MMS should identify mitigation measures for protecting marine habitat, particularly listed species, critical habitat, migratory species pathways, and considerations to minimize potential adverse impacts on marine mammals and other marine life from seismic, vessel, and underwater construction activities.

### Page C-5 Information to the Lessee:

This information should be made available to each applicant/lessee in all of the regions of this program and modified specifically according to habitats and species for each of the regions (for example considerations of bowhead whale populations in Alaska and right whale populations in the Atlantic).

- During the lease sale phase (e.g., presale process), MMS should provide a specific description of the area including listed species, critical habitat, and other important environmental factors.
- As the Federal Action agency, MMS should thoroughly inform applicants of any environmental issues that may be involved with the potential lease sale of an area, including Federally-listed species, critical habitat, whale and vessel strike interactions, seismic and marine mammal interactions and those that will involve ESA consultations, MMPA authorizations, and EFH consultations.

## **References**

References for the Atlantic portions of section III and IV:

- There are several references to NatureServ 2005 – while the information appears to be accurate, a more direct scientific reference for the material being cited would be appropriate;
- With respect to Waring et al 2002; there are more recent versions of the Marine Mammal Stock Assessment reports (up to Waring et al 2005) that would provide the most recent/up-to-date information;
- Several references to NOAA contain no date – a full, proper reference should be provided;
- Several recent papers by James et al. (2005; 2006) provide new information on the movements of leatherback sea turtles over Atlantic continental shelf waters and habitat use within U.S. and Canadian waters.

## **NOAA POINTS OF CONTACT**

**Overall NOAA Contact:**

Carla Sullivan, NOAA Senior Policy Advisor  
Commerce Representative to MMS Outer Continental Shelf Policy Committee  
Department of Commerce  
14th & Constitution NW, HCHB, Room 5810  
Washington, DC 20230  
202-482-5921  
[carla.sullivan@noaa.gov](mailto:carla.sullivan@noaa.gov)

**NOAA NEPA Coordinator:**

Rodney F. Weiher, Ph.D., NOAA NEPA Coordinator  
Office of Program Planning and Integration  
National Oceanic and Atmospheric Administration  
1315 East West Highway  
SSMC 3, Room 15618  
Silver Spring, MD 21044

**NOAA's National Ocean Service (general NOS and CZMA):**

David Kaiser, Senior Policy Analyst  
Office of Ocean and Coastal Resource Management  
National Oceanic and Atmospheric Administration  
Coastal Response Research Center, University of New Hampshire  
246 Gregg Hall, 35 Colovos Road  
Durham, NH 03824-3534  
603-862-2719, Fax: 603-862-3957  
[david.kaiser@noaa.gov](mailto:david.kaiser@noaa.gov)

**NOAA's National Ocean Service (National Marine Sanctuary Program):**

David Bizot, National Permit Coordinator  
NOAA National Marine Sanctuary Program  
1305 East-West Highway (N/ORM6)  
Silver Spring, Maryland 20910  
301-713-7268  
[david.bizot@noaa.gov](mailto:david.bizot@noaa.gov)

**NOAA's National Marine Fisheries Service:**

Emily Lindow, Senior Policy Advisor  
Office of the Assistant Administrator  
National Marine Fisheries Service  
1315 East-West Highway, SSMC3  
Silver Spring, MD 20910  
301-713-2239  
[emily.lindow@noaa.gov](mailto:emily.lindow@noaa.gov)