

**Endangered Species Act - Section 7 Consultation
Biological Opinion**

Action Agency: United States Department of the Interior
Minerals Management Service (MMS)

Activity: Gulf of Mexico Outer Continental Shelf Lease Sale 184
(F/SER/2002/00145)

Consultation Conducted By: National Marine Fisheries Service (NOAA Fisheries)
Southeast Regional Office

Date Issued: _____

Approved By: _____
Joseph E. Powers, Ph.D., Acting Regional Administrator

Consultation History

- March 11, 2002: A request for formal consultation was received by NOAA Fisheries from the MMS.
- April 5-6, 2002: Informal consultation of the proposed action in Miami, Florida. The species affected by proposed action and possible effects of the actions to species were discussed.
- April 26, 2002: NOAA Fisheries acknowledged that a complete application had been received and formal consultation had been initiated.
- June 14, 2002: Some draft text of the biological opinion was sent to the MMS and a conference call was arranged to discuss the draft document.
- June 19, 2002: A conference call between NOAA Fisheries and the MMS took place to discuss the draft biological opinion. Consultation on reasonable and prudent measures took place and the ability of the MMS to implement mitigation measures.
- June 20, 2002: A conference call between NOAA Fisheries and MMS took place to discuss the reasonable and prudent measures associated with the lease sale.
- July 3, 2002: The 1998 Final Environmental Impact Statement (EIS) for the Western Planning Area of the Gulf of Mexico was received by request of NOAA Fisheries for clarification of information in the Lease Sale 184 Environmental Assessment that did not appear in the 2002 Central and Western Planning Areas Draft EIS.
- July 8, 2002: Conference discussions between NOAA Fisheries and MMS on the amount of vessel traffic near the proposed Gulf sturgeon critical habitat as a result of the proposed action.

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coastal United States, due to the large number of waste discharge point sources. The species of turtles analyzed in this Opinion may be exposed to and accumulate these contaminants during their life cycles.

Beachfront development, lighting, and beach erosion control are all ongoing activities along the southeastern coast of the United States. These activities potentially reduce or degrade sea turtle nesting habitats or interfere with hatchling movement to sea. Nocturnal human activities along nesting beaches may also discourage sea turtles from nesting sites. The extent to which these activities reduce sea turtle nesting and hatchling production is unknown. However, more and more coastal counties have or are adopting more stringent protective measures to protect hatchling sea turtles from the disorienting effects of beach lighting. Some of these measures were drafted in response to law suits brought against the counties by concerned citizens who charged the counties with failing to uphold the FSA by allowing unregulated beach lighting which results in takes of hatchlings.

State-regulated commercial and recreational boating and fishing activities in Pamlico Sound waters currently result in the incidental take of threatened and endangered species. It is expected that states will continue to license/permit large vessel and thrill-craft operations which do not fall under the purview of a Federal agency and will issue regulations that will affect fishery activities. Any increase in recreational vessel activity in inshore and offshore waters of the Atlantic Ocean will likely increase the risk of turtles taken by injury or mortality in vessel collisions. Recreational hook-and-line fisheries have been known to lethally take sea turtles, including Kemp's ridleys. Future cooperation between NOAA Fisheries and the states on these issues should help decrease take of sea turtles caused by recreational activities. NOAA Fisheries will continue to work with states to develop FSA section 6 agreements and section 10 permits to enhance programs to quantify and mitigate these takes.

VII. Conclusion

After reviewing the current status of endangered sperm whale, the green, leatherback, hawksbill, and Kemp's ridley sea turtles, and the threatened loggerhead sea turtle and Gulf sturgeon in the GOM, the environmental baseline, the effects of the proposed action, and the cumulative effects, it is the biological opinion of NOAA Fisheries that the implementation of the proposed action, as described in the Proposed Action section of this Opinion, is not likely to jeopardize the continued existence of endangered sperm whale, the green, leatherback, hawksbill, and Kemp's ridley sea turtles, or the threatened loggerhead sea turtle and Gulf sturgeon. No critical habitat has been designated for these species in the GOM; therefore, none will be affected.

VIII. Incidental Take Statement

Incidental Take Statement

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary and must be undertaken by the MMS for the exemption in section 7(o)(2) to apply. MMS has a continuing duty to regulate the activity covered by this incidental take statement. If MMS fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, MMS must report the progress of the action and its impact on the species to NOAA Fisheries as specified in the incidental take statement.

Amount or Extent of Anticipated Take

NOAA Fisheries has determined that there is a quantifiable expected impact to sperm whales and sea turtles in the action area as a result of OCS oil and gas activities. Based on stranding records, incidental captures during recreational and commercial fishing vessels, scientific surveys, and historical data, sperm whales, and five species of sea turtles are known to occur in GOM waters in and around the action area. Current available information on the relationship between these species and OCS oil and gas activities indicates that sea turtles may be killed or injured by vessel strikes that may happen as a result of the proposed action. Therefore, pursuant to section 7(b)(4) of the ESA, NOAA Fisheries anticipates an incidental take as follows:

1 take (injury or mortality) per year of any sea turtle species by vessel impact over the 30-year life of the proposed action.

If the actual incidental take meets or exceeds any of these levels, MMS must immediately reinstate formal consultation.

NOAA Fisheries believes an unspecified number of sperm whales within the action area will be adversely affected by noise from construction and drilling activities and increased vessel traffic. These effects are expected to be sublethal. The extent to which sperm whales will detect and exhibit a behavioral response will be determined by a variety of factors. However, NOAA Fisheries is not including an incidental take statement for the incidental take of whale species due to acoustic harassment at this time because the take of marine mammals has not been authorized under section 101(a)(5) of the Marine Mammal Protection Act (MMPA) and/or its 1994 amendments. Following issuance of such regulations or authorizations, NOAA Fisheries may amend this Opinion to include incidental take of sperm whales.

Pursuant to section 7(b)(4) of the ESA, NOAA Fisheries anticipates an incidental take (by injury or mortality) of up to one documented sea turtle, either a loggerhead, Kemp's ridley, green, leatherback, or hawksbill turtle as a result of a vessel strike. This level of take is anticipated for the exploration and production of oil and gas that may result from the GOM OCS oil and gas lease sale 184. If the actual incidental take meets or exceeds this level, MMS must immediately request reinitiation of formal consultation. NOAA Fisheries, Southeast Regional Office, will cooperate with MMS in the review of the incident.

NOAA Fisheries believes that an unspecified number of sea turtles will experience sublethal effects as the result of exposure to spilled oil, resulting from the proposed action. NOAA Fisheries believes that up to two sea turtles of any of the five species present in the action area will be killed as a result of exposure to spilled oil. However, NOAA Fisheries is not including an incidental take statement for the incidental take of listed species due to oil exposure. Incidental take, as defined at 50 CFR 402.02, refers only to takings that result from an otherwise lawful activity. The Clean Water Act (33 USC 1251 *et seq.*) as amended by the Oil Pollution Act of 1990 (33 USC 2701 *et seq.*) prohibits discharges of harmful quantities of oil, as defined at 40 CFR 110.3, into waters of the United States. Therefore, even though this biological opinion has considered the effects on listed species by oil spills that may result from the proposed action, those takings that would result from an unlawful activity (i.e., oil spills) are not specified in this incidental take statement and have no protective coverage under section 7(o)(2) of the ESA.

Effect of the Take

In the accompanying biological opinion, NOAA Fisheries determined that the aforementioned level of anticipated take (lethal, or non-lethal) is not likely to appreciably reduce either the survival or recovery of sperm whales, leatherback, green, hawksbill, Kemp's ridley, loggerhead sea turtles, or Gulf sturgeon in the wild by reducing their reproduction, numbers, or distribution. The activity, therefore, is not likely to result in jeopardy to any of the above mentioned species. The project area has no designated critical habitat for any of the listed species under NOAA Fisheries' jurisdiction, and therefore will not cause an adverse modification of critical habitat.

Reasonable and Prudent Measures

NOAA Fisheries believes the following reasonable and prudent measures are necessary and appropriate to minimize the potential for incidental take of sperm whales, or Kemp's ridley, green, loggerhead, leatherback, and hawksbill sea turtles:

- 1) MMS shall minimize the amount of flotsam and jetsam discharged into waters of the Gulf of Mexico as a result of the proposed action to the greatest extent practicable.
- 2) MMS shall observe the effects of vessel traffic on listed species.

- 3) MMS shall minimize adverse effects to sperm whales activity in an impact zone around the vicinity of all seismic operations in Gulf water equal to or greater than 200 m.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, MMS must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting and monitoring requirements. These terms and conditions are non-discretionary.

1. The MMS shall work with offshore oil and gas industry to:
 - a. Prepare a training video that educates offshore industry-related personnel on marine debris that may be generated by industry activities, their vectors of introduction into the marine environment, and measures that personnel are to undertake to eliminate jetsam and flotsam of industry-related trash in the Gulf. The MMS shall condition permits issued to oil companies to require offshore oil and gas industry-related personnel, including support services-related personnel (e.g., helicopter pilots, vessel captains and crews, and various contractors), to view the training video once each year. Lessees and operators will be responsible for certifying that personnel utilized offshore for their respective projects have viewed the training video on an annual basis.
 - b. Review existing practices, regulations, guidelines, and waste management plans to identify gaps that may result in the release of objects that might become flotsam and jetsam in the sea. Based upon that review, MMS shall update guidelines, in the form of a Notice to Lessees and Operators, to eliminate sources of flotsam and jetsam from offshore oil and gas activities. MMS shall provide the NOAA Fisheries, Southeast Regional Administrator with a copy of these guidelines.
 - c. MMS shall condition permits issued to oil companies requiring them to post signs in prominent places on all offshore oil and gas industry-related vessels and surface facilities (e.g., fixed and floating platforms used as a result of the proposed action detailing the reasons (legal and ecological) why release of debris must be eliminated.
2. MMS shall develop, in conjunction with NOAA Fisheries, a program to train observers to be used during vessel operations supporting the proposed action to minimize vessel strikes to protected species.
3. All seismic surveys will use approved ramp-up procedures to allow sea turtles and sperm whales to depart the impact zone before seismic surveying begins. Ramp-up procedures and seismic surveys may be initiated only during daylight hours. Ramp-up procedures shall begin no earlier than 20 minutes prior to the use of seismic equipment. Ramp-up should begin with a

single air-gun firing singly followed by other air-guns in the array. The array will then increase firing at a rate of 6 dB re 1 Φ Pa per minute until the full intensity of the array is achieved.

4. Observers who have successfully completed a NOAA Fisheries approved training program will be used on seismic vessels in the Western Planning area of the Gulf of Mexico. A 180 dB impact zone will be established in water depths equal to or greater than 200 m. NOAA Fisheries approved observers will monitor waters for sperm whales within a calculated 180 dB impact zone before and during seismic operations, based upon the appropriate water depth. Seismic operations will immediately cease when a sperm whale is detected within the 180 dB impact zone. Air-guns may begin ramp-up once it has been determined that all sperm whales have left the impact zone. Ramp-up procedures and seismic surveys may be initiated only during daylight hours. Impact zone calculations shall be made by seismic personnel. Based on the results of recent scientific studies, a new equation is in development that will be used to calculate the impact zone from seismic surveys. While this equation is in development, an established equation to predict spherical spreading will be used to determine the distance (L_r) at which 180 dB level or greater would be received within the range of a sound source. Richardson et al. (1995) present an equation for spherical spreading to determine the distance (L_r) at which 180 dB levels or greater would be received within the range of a sound source. The impact zone may be calculated by the logarithmic spherical spreading equation:

$$I_r = I_s - 20 \log R$$

L_r = the received level in dB re 1 Φ Pa underwater

L_s = the source level at 1 m in the same units, and

R = the range in m

NOAA Fisheries will inform MMS when the new model for seismic operations is completed, at which point the MMS is required to replace the existing equation to calculate the 180 dB impact zone.

5. When sperm whales are sighted during seismic exploration in the Western Planning Area of the Gulf of Mexico, MMS must report to NOAA Fisheries within 14 days of the sighting. Reports shall include the location of the sighting, number of animals sighted, whether or not an animal entered the impact zone warranting a shut-down, how long the shut-down occurred (i.e., how long the sperm whale was in the impact zone), and the name and contact information for the person who wrote the report. A compilation of these data shall be submitted in the annual report.

6. MMS shall complete an annual report to be submitted to the NOAA Fisheries, Southeast Regional Office, Assistant Regional Administrator for Protected Resources, by January 30 of each year. This report will enumerate the number, amount, location, and types of toxic spills resulting from the proposed action for the previous year, and takes of protected species (Section 9

and Federal regulations pursuant to section 4(d) of the ESA) resulting from the proposed action for the previous year. Any takes shall be reported within no more than 48 hours of the take. The report shall include the species or detailed description of the animal if positive identification is not possible, vessel identification, cause and/or circumstances surrounding the take date, time, location, and name of the person filling out the report.

7. The MMS shall 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 the MMS. The MMS-GOMR Protected Species Biologist shall coordinate with the appropriate salvage and stranding network coordinators to determine if recovery of the impacted animal is necessary, using qualified staff and the appropriate equipment. If oil and gas industry activity is responsible for the injured or dead animals (e.g., because of a vessel strike), the MMS shall require the responsible parties to assist the respective salvage and stranding network as appropriate.

IX. Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authority to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

In order for NOAA Fisheries to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, NOAA Fisheries requests notification of the implementation of any conservation recommendations.

1. MMS should sponsor programs to conserve the ecology of the Gulf of Mexico marine environment.
2. MMS should sponsor research on juvenile sea turtle habitat in the GOM, which may include the effects of oil and gas exploration, development, and production.
3. MMS should continue to conduct surveys of the GOM to determine the seasonal distribution and relative abundance of sea turtles and cefaccans to ascertain the extent of impacts relative to OCS oil and gas activities.
- 4.4. On June 15-16, 1999, MMS hosted a Marine Protected Species Workshop in New Orleans, LA. MMS, in concert with appropriate agencies and with assistance in funding by industry where possible, should continue efforts in supporting work to carry out the recommendations of the panel. MMS should continue its support of research to determine effects of OCS related noise on sperm whales and sea turtles.

5. MMS should require that permit holders maintain helicopter traffic over the proposed action area at altitudes above 1,000 feet as practicable, to avoid disturbance to whales and sea turtles.
6. MMS should encourage the OCS oil and gas industry to research, develop, and deploy passive acoustic monitoring technologies, night vision equipment, and other technologies to detect and monitor cetaceans. The fact that sperm whales are vocal means that passive acoustic equipment and methods may offer an effective means of detecting and tracking sperm whales (Whitehead and Gordon 1986, Gordon 1987, Leaper et al. 1992). Passive monitoring systems and procedures approved by NOAA Fisheries may be used in lieu of visual observers; however, visual observers will be required when sperm whales are detected within the area of seismic activities. Approved monitoring and procedures can be utilized for nighttime seismic surveys. All passive monitoring systems and procedures must receive prior approval from NOAA Fisheries.

In order for NOAA Fisheries to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, NOAA Fisheries requests notification of the implementation of any conservation recommendations.

X. Reinitiation of Consultation

This concludes formal consultation on the actions outlined in MMS' letter dated October 19, 2000. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of taking specified in the incidental take statement is met or exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat (when designated) in a manner or to an extent not previously considered, (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion, or (4) a new species is listed or critical habitat designated that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, MMS must immediately request reinitiation of formal consultation.

MMS is presently consulting with NOAA Fisheries on lease sales in the western and central Gulf of Mexico. The biological opinion will incorporate new information provided by the MMS on geologic and geophysical exploration in the Gulf of Mexico. The above-mentioned biological opinion will supersede all previous biological opinions pertaining to the Central and Western Planning areas of the Gulf of Mexico.