



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

**Finding of No Significant Impact for the National Marine Fisheries Service's  
Issuance of Marine Mammal Protection Act Regulations and Letters of  
Authorization for Take Associated with BP's Operation of Offshore Oil and Gas  
Facilities in the U.S. Beaufort Sea**

**National Marine Fisheries Service**

BACKGROUND

The National Marine Fisheries Service (NMFS) received an application from BP Exploration (Alaska) Inc. (BP) for authorization to take small numbers of marine mammals incidental to operation of an offshore oil and gas facility in the U.S. Beaufort Sea over a five-year period. Pursuant to the Marine Mammal Protection Act (MMPA), authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such takings are set forth.

In accordance with the National Environmental Policy Act (NEPA) and its implementing regulations and agency NEPA procedures, NMFS completed an *Environmental Assessment for the Issuance of Regulations and Letters of Authorization to BP Exploration (Alaska) Inc. for the Take of Marine Mammals by Harassment Incidental to Operation of Offshore Oil and Gas Facilities in the U.S. Beaufort Sea*. This Finding of No Significant Impact has been prepared to evaluate the significance of the impacts of NMFS' proposed action and is specific to Alternative 2 in the Environmental Assessment (EA), which was identified in the June 2012 EA (the EA) as the preferred alternative. Alternative 2 is entitled "Promulgation of Five-year Regulations and Subsequent Issuance of LOA(s) to BP with Required Mitigation, Monitoring, and Reporting Measures." Based on NMFS' review of BP's proposed action and the measures contained in Alternative 2, NMFS has determined that no significant impacts to the human environment would occur from implementing the Preferred Alternative.

SIGNIFICANCE REVIEW

National Oceanic and Atmospheric Administration Administrative Order (NAO) 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. §1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in



combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or Essential Fish Habitat (EFH) as defined under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) and identified in fishery management plans?

Response: NMFS does not anticipate that either issuance of regulations and subsequent Letters of Authorization (LOA) or BP's proposed activity would cause substantial damage to the ocean and coastal habitats. Several aspects of BP's activity may impact coastal and ocean habitats, including: vessel traffic; vessel noise; ice road construction; and small accidental oil spills on the island. The primary types of impacts would be acoustic in nature, which would not affect physical habitat features, such as substrates and water quality. Although some small spills (such as of hydraulic fluid or diesel fuel) occur during operation of the Northstar facility, those spills are contained to the island and are easily cleaned up without impacting ocean and coastal habitats or EFH.

The eastern U.S. Beaufort Sea has not been identified as containing EFH. Therefore, the promulgation of regulations and subsequent issuance of an LOA for BP's operation of the Northstar facility in the Beaufort Sea are not anticipated to have any adverse effects on EFH.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: The proposed promulgation of regulations and issuance of the LOA to authorize the take of marine mammals incidental to BP's continued operation of Northstar would not have a substantial impact on biodiversity or ecosystem function within the affected area. The impacts of operating Northstar on marine mammals result primarily from the acoustic activities, and these impacts are expected to be temporary in nature and not result in a substantial impact to marine mammals or to their role in the ecosystem. Most invertebrates do not contain organs subject to injury by underwater sounds. Although ice road construction has the potential to injure or kill ringed seals in subnivean lairs, the possibility is remote. Mitigation measures that would be required to be implemented if ice roads are constructed during the ringed seal pupping season (after March 1) would reduce this potential even further. The LOA anticipates, and would authorize, Level B harassment, in the form of temporary behavioral disturbance, of three cetacean and three pinniped species. The LOA would also authorize up to five ringed seal mortalities per year over the course of five years. No injury (Level A harassment), serious injury, or mortality is anticipated or authorized for any other marine mammal species, and the take is not expected to affect biodiversity or ecosystem function.

The potential for BP's activity to affect other ecosystem features and biodiversity components, including fish, invertebrates, seabirds, EFH and habitat areas of particular

concern, and oceanographic features are fully analyzed in the EA. NMFS' evaluation indicates that any direct or indirect effects of the action would not result in a substantial impact on biodiversity or ecosystem function. In particular, the potential for effects to these resources are considered here with regard to the potential effects on diversity or functions that may serve as essential components of marine mammal habitats. Most effects are considered to be short-term and unlikely to affect normal ecosystem function or predator/prey relationships; therefore, NMFS determined that there will not be a substantial impact on marine life biodiversity or on the normal function of the nearshore or offshore ecosystems of the Beaufort Sea, Alaska.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: NMFS does not expect either issuance of the proposed regulations and LOA or BP's proposed operations to have a substantial adverse impact on public health or safety. Monitoring for marine mammals, other marine life, and subsistence hunting and fishing vessels during operations effectively eliminates the possibility of any humans being inadvertently exposed to levels of sound that might have adverse effects. Over the last 10 years, BP has cleaned up small spills on the island effectively, and it is anticipated that BP would continue to do so in the event of accidental spills. As described in the response to question 5, BP will limit activity in the vicinity of Cross Island when North Slope Borough subsistence whalers are hunting bowhead whales in the fall, thereby minimizing the risk to them. BP conducts rigorous safety and emergency training throughout the year to ensure the safety of its personnel.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: The proposed LOA would authorize Level B harassment (in the form of short-term and localized changes in behavior) of small numbers of marine mammals, including the endangered bowhead whale and proposed threatened ringed and bearded seals, incidental to the proposed continued operation of Northstar. It would also authorize up to five ringed seal mortalities per year. No injury (Level A harassment), serious injury, or mortality is anticipated or proposed to be authorized of any other marine mammal species. Behavioral effects may include temporary and short-term displacement of cetaceans and pinnipeds from within certain ensonified zones. However, most cetaceans migrate offshore beyond the zones of ensonification that would likely cause harassment. The deflection of species would reduce further the likelihood of more severe impacts. The monitoring and mitigation measures required for the activity are designed to ensure that impacts are at the lowest level practicable.

Taking these measures into account, effects on marine mammals from the preferred alternative are expected to be limited to avoidance of the area around the operations and short-term behavioral changes, falling within the MMPA definition of "Level B harassment." Although up to five ringed seal mortalities per year are proposed to be authorized, these takes are highly unlikely and will be mitigated to the lowest level

practicable. Numbers of individuals of all marine mammal species incidentally taken to the specified activity are expected to be small (relative to species abundance), and the incidental take is anticipated to have a negligible impact on the affected species or stock and no unmitigable adverse impact on the availability of species or stocks for taking for subsistence uses.

NMFS (Office of Protected Resources, Permits and Conservation Division) initiated a formal consultation, under Section 7 of the Endangered Species Act (ESA), with the NMFS, Alaska Regional Office, Protected Resources Division on the proposed promulgation of regulations and subsequent issuance of an LOA to BP to take marine mammals incidental to operation of an offshore oil and gas facility in the U.S. Beaufort Sea. In June, 2012, NMFS finished conducting its section 7 consultation and issued a Biological Opinion and concluded that the issuance of five-year incidental take regulations and subsequent LOAs for the continued operation of the Northstar oil and gas facilities in the U.S. Beaufort Sea is not likely to jeopardize the continued existence of the endangered bowhead whale, the Arctic sub-species of ringed seal, or the Beringia distinct population segment of bearded seal. No critical habitat has been designated for these species, therefore none will be affected.

Additional mitigation measures based on the Plan of Cooperation (POC)<sup>1</sup> will be required via the final rule and LOA to avoid conflicts between industry activities and Alaska Native subsistence activities in the Beaufort Sea.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: This action will not have a significant social or economic impact, as there are no commercial fishing or other activities that might be affected by offshore drilling for and production of oil and gas deposits. Since Level B harassment and mortality of marine mammals are anticipated, the potential impacts to subsistence needs and culture were fully analyzed in the supporting EA. Marine mammals are legally hunted in Alaskan waters by coastal Alaska Natives. The species hunted include: bowhead and beluga whales; ringed, spotted, ribbon, and bearded seals; walrus; and polar bears. (Note that walrus and polar bear are under the jurisdiction of the U.S. Fish and Wildlife Service.) The importance of each of the various species varies among the communities and is based largely on availability. Bowhead whale hunting is the key activity in the subsistence economies in and around the Beaufort Sea. The whale harvests have a great influence on social relations by strengthening the sense of Inupiat culture and heritage in addition to reinforcing family and community ties. The fall bowhead whale hunts conducted by the communities of Kaktovik, Nuiqsut, and Barrow would co-occur temporally with BP's activities for a few weeks each fall. However, BP will limit

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<sup>1</sup> A POC or information that identifies what measures have been taken and/or will be taken to minimize adverse effects on the availability of marine mammals for subsistence purposes is required to be submitted by an applicant pursuant to 50 CFR 216.104(a)(12). The POC specifies measures the applicant would take to minimize adverse effects on marine mammals where proposed activities may affect the availability of a species or stock of marine mammals for Arctic subsistence uses or near a traditional subsistence hunting area.

activities near Cross Island (where the community of Nuiqsut conducts its bowhead whale hunt) after August 25 each year until Nuiqsut hunters reach their quota and declare the hunt closed for the season.

To avoid having a significant social or economic impact, BP will implement the measures contained in the POC. Therefore, NMFS has determined (based on the above stated reasons and the analysis contained in the EA) that neither issuance of the regulations and subsequent LOA nor BP's proposed activities are likely to result in significant socioeconomic or cultural impacts.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: The effects of this action on the quality of the human environment are not likely to be highly controversial. There is no significant controversy about the effects of BP's proposed activities or the issuance of regulations and subsequent LOA on the quality of the human environment. NMFS has issued multiple incidental take authorizations for BP's Northstar facility since 1999, and the required mitigation and monitoring measures were informed by NMFS experience. As noted elsewhere in this Finding of No Significant Impact and in NMFS' final rule determination, NMFS is requiring, as proposed by BP, with modifications based on an independent scientific peer review, a detailed mitigation and monitoring program designed to gather additional data and reduce impacts on affected marine mammal stocks to the lowest level practicable.

NMFS published a Notice of Receipt of Application in the *Federal Register* on March 17, 2010 (75 FR 12734), and a proposed rule on July 6, 2011 (76 FR 39706), with each notice allowing the public to submit comments for up to 30 days from the date of publication. No comments were received on the initial notice published in March 2010. During the public comment period on the proposed rule, NMFS received only two comment letters: one from the Marine Mammal Commission and one from a private citizen. The private citizen supported issuance of the authorization. The letter from the Marine Mammal Commission requested clarification on some of the take estimates and modifications or clarifications to mitigation and monitoring measures. NMFS has determined that there is no substantial dispute concerning the scope, context, or intensity of the environmental effects of the proposed action.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, EFH, or ecologically critical areas?

Response: BP's proposed activities will occur in the U.S. Beaufort Sea where no park land, prime farmlands, wetlands, wild and scenic rivers, EFH, or critical habitat are present. Bowhead and beluga whales migrate through the area. However, the main migration corridors are typically further offshore than BP's main areas of operation. Some ice seals conduct important life functions in the Beaufort Sea, such as making subnivean lairs for pupping; however, mitigation measures would be required to reduce

any impacts. Detailed information about the affected environment, other marine mammals, and marine life are provided in the Final EA.

To the extent that marine mammals are important features of these resource areas, the potential temporary behavioral disturbance of marine mammals might result in short-term behavioral effects on cetaceans and pinnipeds within ensonified zones, but no long-term displacement of marine mammals, endangered species, or their prey is expected as a result of the action or the issuance of an LOA for marine mammals. Mitigation measures would reduce this potential further.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects of the action on the human environment are not likely to be highly uncertain or involve unique or unknown risks. The exact mechanisms of how different sounds may affect certain marine organisms are not fully understood. While NMFS' judgments on impact thresholds are based on somewhat limited data, enough is known for NMFS and the regulated entity (here BP) to develop precautionary monitoring and mitigation measures to minimize the potential for significant impacts on biological and cultural resources. The multiple mitigation and monitoring requirements are designed to ensure the least practicable adverse impact on the affected species or stocks of marine mammals, to ensure no unmitigable adverse impact on the availability of marine mammal species or stocks for taking for subsistence uses, and also to gather additional data to inform future decision-making.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: BP's operation of the Northstar facility and NMFS' action of promulgating regulations and issuing a subsequent LOA are not expected to result in cumulatively significant impacts when considered in relation to other separate actions with individually insignificant effects.

Within the U.S. Arctic Ocean there are other Federal actions, such as oil-and-gas exploration and production (exploratory drilling proposed by Shell in the Beaufort and Chukchi Seas and seismic surveys proposed for 2012 by BP and ION) and U.S. Department of the Interior Bureau of Ocean Energy Management (BOEM) Lease Sales in the U.S. Chukchi and Beaufort Seas. However, these activities are temporally dispersed and use appropriate mitigation designed to reduce impacts on marine life to the lowest level practicable. Finally, heavy ship traffic and commercial fishing do not occur in this area. These activities, when conducted separately or in combination with other activities, can affect marine mammals in the study area. Any cumulative effects caused by the addition of impacts on marine mammals resulting from continued operation of the Northstar facility will be limited and will not rise to the level of "significant," especially considering the mitigation and monitoring measures.

NMFS has issued Incidental Take Authorizations to BP for the operation of Northstar since 1999, which have included required monitoring and mitigation measures to minimize impacts. There is no indication, based on our review of the data from past operations, that marine mammals have experienced significant adverse impacts from these activities. Thus, NMFS has determined that the proposed action will not lead to cumulatively significant impacts.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: NMFS' proposed action is not likely to adversely affect native cultural resources along the Beaufort Sea coast. As described in question 5 above, implementation of mitigation and monitoring measures in the LOA issued to BP ensures that there will not be significant social or economic impacts on the coastal inhabitants of the Alaska coast or an unmitigable adverse impact on the availability of marine mammals for subsistence uses by these residents. BP's proposed action is not likely, directly or indirectly, to adversely affect places or objects listed in or eligible for listing in the National Register of Historic Places, or other significant scientific, cultural or historical resources as none are known to exist at the site of the proposed action.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: NMFS' promulgation of regulations and subsequent issuance of the LOA is not expected to result in the introduction or spread of non-indigenous species. BP is required to operate vessels in accordance with U.S. Coast Guard regulations.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Response: The proposed action will not set a precedent for future actions with significant effects or represent a decision in principle. To ensure compliance with statutory and regulatory standards, NMFS' actions under section 101(a)(5)(A) of the MMPA must be considered individually and be based on the best available information, which is continuously evolving in the field of underwater sound. Moreover, each action for which an Incidental Take Authorization is sought must be considered in light of the specific circumstances surrounding the action, and mitigation and monitoring may vary depending on those circumstances. A finding of no significant impact for this action, and for NMFS' issuance of regulations and a subsequent LOA, may inform the environmental review for future projects but would not establish a precedent or represent a decision in principle about a future consideration.

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: NMFS does not expect the proposed action to violate any Federal law or requirements imposed for the protection of the environment, as NMFS has fulfilled its section 7 responsibilities under the ESA (see response to question 4 above) and the action itself would result in issuance of the regulations and subsequent LOA in compliance with all standards required in the MMPA.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: BP's continued operation of Northstar and NMFS' promulgation of regulations and subsequent issuance of an LOA are not expected to result in any significant adverse effects on species incidentally taken by harassment or mortality. There have been no other offshore oil and gas production operations in the U.S. Arctic for the last few years. However, there have been several oil and gas industry seismic and shallow hazards and site clearance surveys in the U.S. Arctic since 2006. Shell also intends to conduct offshore exploratory drilling programs in the U.S. Beaufort and Chukchi Seas during the open-water seasons in 2012 and 2013. BP and ION will both be conducting seismic survey programs in the Beaufort Sea in 2012. Because of the geographic spacing of all actions, overlap of ensonified zones is anticipated to be limited, if it occurs at all. Moreover, all of these other actions will be limited to a few months during the open-water (July-October) and early in-ice season (October-December). NMFS does not believe the effects of this action combined with effects from the other operations and surveys would result in cumulative adverse effects.

As described in the EA, anthropogenic activities such as commercial fishing, subsistence hunting and fishing, oil and gas exploration and development, and vessel traffic all have the potential to take marine mammals in the Arctic Ocean to varying degrees either through behavioral disturbance (vessel noise, and low-, mid-, and high-frequency sound) or more direct forms of injury or death (hunting, vessel collisions). Impacts of the offshore oil and gas development facility in the Beaufort Sea are, however, expected to be minor, short-term, and incremental when viewed in light of other human activities within the study area. Unlike some other activities (e.g., Alaska Native subsistence hunting and fishing), the proposed operations are not expected to result in injuries or deaths of marine mammals. Thus, the combination of BP's operations with the existing oil and gas development and exploration, vessel traffic, and hunting and fishing activities is expected to produce only a negligible increase in overall disturbance effects on marine mammals. Take of only small numbers of each species by behavioral disturbance is authorized. Take by injury or mortality of up to five ringed seals would also be authorized each year over the course of five years. No injury, serious injury, or mortality is anticipated or authorized for any other species. Therefore, the proposed action is not expected to contribute to or result in a cumulatively significant impact to marine mammals or other marine resources.

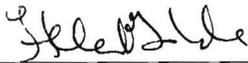
NMFS anticipates that the proposed action will not result in cumulative adverse effects that could have a substantial effect on any species, such as cetaceans and pinnipeds in the area (see responses to questions 4 and 9 above). Continued operation of the Northstar

facility would also not be expected to have a substantial cumulative effect on any seabirds, fish, or invertebrate species. Based on the implementation of required monitoring and mitigation measures, NMFS does not anticipate that the proposed action will result in cumulative adverse effects that could have a substantial effect on marine mammals or other marine species.

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## DETERMINATION

In view of the information presented in this document and the analyses contained in the supporting *Environmental Assessment for the Issuance of Regulations and Letters of Authorizations to BP Exploration (Alaska) Inc. for the Take of Marine Mammals by Harassment Incidental to Operation of Offshore Oil and Gas Facilities in the U.S. Beaufort Sea*, prepared by NMFS, it is hereby determined that the promulgation of regulations and subsequent issuance of an LOA to BP for the take of small numbers of marine mammals incidental to operation of offshore oil and gas facilities in the U.S. Beaufort Sea, in accordance with Alternative 2 in NMFS' 2012 EA will not significantly impact the quality of the human environment, as described above and supported by NMFS' EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.



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Helen M. Golde  
Acting Director  
Office of Protected Resources  
National Marine Fisheries Service

**JUN 25 2012**

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Date