FINDING OF NO SIGNIFICANT IMPACT FOR THE ISSUANCE OF AN INCIDENTAL HARASSMENT AUTHORIZATION TO BP EXPLORATION (ALASKA) INC. FOR THE TAKE OF MARINE MAMMALS INCIDENTAL TO A 3D OCEAN BOTTOM SENSOR SEISMIC SURVEY IN PRUDHOE BAY, BEAUFORT SEA, ALASKA

NATIONAL MARINE FISHERIES SERVICE

BACKGROUND

The National Marine Fisheries Service (NMFS) received an application from BP Exploration (Alaska) Inc. (BP) requesting an Incidental Harassment Authorization (Authorization) under the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1631 *et seq*.) for the incidental taking of marine mammals incidental to the conduct of a 3D ocean bottom sensor (OBS) seismic survey in Prudhoe Bay in the Beaufort Sea, Alaska, from July through September 2014.

Under the MMPA, NMFS, shall grant authorization for the incidental taking of small numbers of marine mammals if we find that the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). The Authorization must prescribe, where applicable, the permissible methods of taking; other means of effecting the least practicable impact on the species or stock and its habitat; and requirements pertaining to the mitigation, monitoring and reporting of such taking.

The proposed action is a direct outcome of BP requesting an Authorization to take marine mammals, by harassment, incidental to conducting a 3D OBS seismic survey program in Prudhoe Bay. BP's activities, which have the potential to behaviorally disturb marine mammals, warrant an incidental take authorization from us under section 101(a)(5)(D) of the MMPA.

In accordance with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq*.), the Council on Environmental Quality (CEQ) regulations in 40 CFR §§ 1500-1508, and National Oceanographic and Atmospheric Administration (NOAA) Administrative Order (NAO) 216-6, we completed an Environmental Assessment (EA) titled, *Issuance of Incidental Harassment Authorizations to BP Exploration (Alaska) Inc. for the Take of Marine Mammals Incidental to Seismic and Geohazard Surveys in the Beaufort Sea, Alaska*. We incorporate this EA in its entirety by reference.

We have prepared this Finding of No Significant Impact (FONSI) to evaluate the significance of the impacts of our selected alternative—Alternative 1 (Preferred Alternative) titled, "Issuance of Authorizations with Mitigation Measures," and our conclusions regarding the impacts related to our proposed action. Under this Alternative, we would issue an Authorization under the MMPA with required mitigation, monitoring, and reporting measures. Based on our review of BP's proposed action and the measures contained within Alternative 1, we have determined that no direct, indirect, or cumulatively significant impacts to the human environment would occur from implementing the Preferred Alternative.

ANALYSIS

NAO 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the CEQ regulations at 40 CFR §1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below this section is relevant to making a finding of no significant impact. We have considered each criterion individually, as well as in combination with the others. We analyzed the significance of this action 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 as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans (FMP)?

Response: We do not expect that our action of issuing an Authorization to BP or BP's proposed survey would cause substantial damage to the ocean and coastal habitats and/or essential fish habitat. The sounds produced by the airguns and pingers may affect marine mammals. These temporary acoustic activities would not affect physical habitat features, such as substrates and water quality. Additionally, the effects from vessel transit and the seismic operations of survey vessels would not result in substantial damage to ocean and coastal habitats that might constitute marine mammal habitats. The mitigation and monitoring measures required by the Authorization would not affect habitat or essential fish habitat (EFH).

EFH has been identified in the Beaufort Sea for five species of Pacific salmon. Effects on EFH by the seismic operations and issuance of the Authorization assessed here would be temporary and minor. The main effect would be short-term disturbance that might lead to temporary and localized relocation of the EFH species or their food. The actual physical and chemical properties of the EFH will not be impacted. Therefore, NMFS, Office of Protected Resources, Permits and Conservation Division has determined that the issuance of an Authorization for the taking of marine mammals incidental to a marine seismic survey in Prudhoe Bay, Beaufort Sea, Alaska, will not have an adverse impact on EFH, and an EFH consultation is not required.

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: We do not expect that our action of issuing an Authorization to BP or BP's proposed survey would have a substantial impact on biodiversity and/or ecosystem function within the affected environment. The proposed action may temporarily disturb marine mammals in the proposed action areas, but the effects would be short-term and localized.

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

Response: We do not expect that our action of issuing an Authorization to BP or BP's proposed survey would have a substantial adverse impact on public health or safety, as the taking, by harassment, of marine mammals would pose no human risk.

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: We have determined that our issuance of an Authorization and BP's proposed survey would likely result in limited adverse effects to nine marine mammal species. The EA evaluates the affected environment and potential effects of both proposed actions, indicating that only the sounds produced during the seismic survey have the potential to affect marine mammals in a way that requires authorization under the MMPA. The activities and any required mitigation measures would not affect physical habitat features, such as substrates and water quality.

We have determined that the proposed activities may result in some Level B harassment (in the form of short-term and localized changes in behavior) of nine species of marine mammals—two of which are listed as threatened and one of which is listed as endangered under the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq*.) but will have a negligible impact on the species or stocks. There is no designated critical habitat in the proposed survey area. The NMFS Office of Protected Resources Permits and Conservation Division consulted with the NMFS Alaska Regional Office (AKRO) Protected Resources Division (PRD) on the issuance of Authorizations under Section 101(a)(5)(D) of the MMPA because the action of issuing the Authorizations may affect threatened and endangered species under NMFS' jurisdiction. On June 10, 2014, NMFS AKRO PRD issued a Biological Opinion, which concluded that the issuance of an Authorization to BP for the 3D OBS seismic survey is not likely to jeopardize the continued existence of the endangered bowhead whale, threatened Arctic subspecies of ringed seal, or the threatened Beringia distinct population segment of bearded seal or result in the destruction or adverse modification of any designated critical habitat.

To reduce the potential for disturbance from acoustic stimuli associated with the activities, BP will implement several monitoring and mitigation measures for marine mammals, which are outlined in the EA. Taking these measures into consideration, we expect that the responses of marine mammals from the Preferred Alternative would be limited to temporary avoidance of the area, short-term behavioral changes, and/or low-level physiological effects, falling within the MMPA definition of "Level B harassment." We do not anticipate that take by injury (Level A harassment), serious injury, or mortality would occur, nor would we authorize take by injury, serious injury, or mortality. We expect that harassment takes would be at the lowest level practicable due to the incorporation of the proposed mitigation measures.

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

Response: No significant social or economic effects are expected to result from issuance of the Authorization or the proposed seismic survey. The seismic survey would provide information valuable for reservoir management in Prudhoe Bay. The primary impacts to the natural and physical environment are expected to be acoustic and temporary in nature, and not interrelated with significant social or economic impacts.

Since Level B harassment of marine mammals is 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; walruses; 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 occur after BP ceases airgun operations by midnight on August 25. Additionally, the activities will not begin until the spring bowhead whale hunt in Barrow is concluded. Adverse impacts are not anticipated on sealing activities since the majority of hunts for seals occur in the winter and spring, when BP will not be operating. Sealing activities in the Colville River delta area, which co-occur temporally, occur approximately 50 mi from BP's proposed Prudhoe Bay survey area, with the closest point about 20 mi away.

To avoid having a significant social or economic impact, BP will implement measures to reduce impacts to subsistence hunts, the most significant of which is the cessation of airgun operations by midnight on August 25, prior to the beginning of fall bowhead whale hunting in the Beaufort Sea. Therefore, NMFS has determined (based on the foregoing) that BP's activities will not have an unmitigable adverse impact on the availability of marine mammals for taking by subsistence users. The proposed seismic survey is not expected to result in any conflict between the industry and subsistence users. As a result of these measures and the mitigation measures that will be implemented to reduce the potential for natural and physical effects, no significant social and economic impacts are expected.

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

Response: NMFS has issued numerous Authorizations for seismic survey activities, including ones for similar projects in the Beaufort and Chukchi Seas and other parts of Alaska. The anticipated impacts on marine mammals are not highly controversial. There has been no substantial dispute with the size, nature, or effect of the proposed action. Nor is there any information to suggest that the Authorization may cause substantial degradation to any element of the human environment, including marine mammals. During the 30-day public comment period, NMFS received two comment letters. In general, the comments focused on aspects of the seismic operations, the analysis of takes of marine mammals provided in the application and *Federal Register* notice announcing the proposed Authorization, and some of the proposed mitigation and monitoring measures. These comments did not alter our preliminary determinations, and we were still able to meet the requirements for issuing an Authorization (see also response to question 8).

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, essential fish habitat, or ecologically critical areas?

Response: Issuance of the Authorization or BP's proposed survey are not expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas as it would only authorize harassment to marine mammals. The action area does not contain, and is not adjacent to, areas of notable visual, scenic, historic, or aesthetic resources that would be substantially impacted. Moreover, the issuance of the Authorization would not impact EFH. (See responses to questions 1 and 2.)

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

Response: The potential risks associated with seismic surveys are not unique or unknown, nor is there significant uncertainty about impacts. NMFS has issued numerous Authorizations for seismic

activities in Alaskan waters and conducted NEPA analysis on those projects. Each Authorization required marine mammal monitoring, and monitoring reports have been reviewed by NMFS to ensure that activities have a negligible impact on marine mammals. In no case have impacts to marine mammals, as determined from monitoring reports, exceeded NMFS' analysis under the MMPA and NEPA. Therefore, the effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks.

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

Response: Issuance of an Authorization to BP or BP's proposed survey is not related to other actions with individually insignificant but cumulatively significant impacts. While other projects in the Beaufort Sea may result in harassment to marine mammals, we do not expect that the impacts would be cumulatively significant. Any future Authorizations would have to undergo the same permitting process and would take BP's proposed action into consideration when addressing cumulative effects.

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: We have determined that the issuance of an Authorization to BP and BP's proposed survey would not adversely affect entities listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural, or historical resources. The proposed action is limited to the authorization to harass marine mammals consistent with the MMPA definition of "Level B harassment." As described in question 5 above, there will not be significant social or economic impacts on the coastal inhabitants of the Alaska coast or an unmitigable adverse impact on the subsistence uses of marine mammals by these residents.

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

Response: The issuance of an Authorization to BP is not expected to result in the introduction or spread of a non-indigenous species into the human environment, and BP is responsible for ensuring that their ships are in compliance with all international and U.S. national ballast water requirements.

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

Response: Our proposed action of issuing an Authorization would not set a precedent for future actions with significant effects or represent a decision in principle. Each MMPA authorization applied for under 101(a)(5)(D) must contain information identified in our implementing regulations. We consider each activity specified in an application separately and, if we issue an Authorization to an applicant, we must determine that the impacts from the specified activity would result in a negligible impact to the affected species or stocks and would not have an unmitigable adverse impact on the availability of marine mammals for subsistence uses. Our issuance of an Authorization 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 violate any Federal, State, or local law or requirements imposed for the protection of the environment?

Response: The issuance of an Authorization would not result in any violation of federal, state, or local laws for environmental protection. The applicant is required to obtain any additional federal, state and local permits necessary to carry out the proposed activities.

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: The proposed action allows for the taking, by incidental harassment, of marine mammals during the proposed 3D OBS seismic survey in the Beaufort Sea, Alaska. We have determined that marine mammals may exhibit behavioral changes such as avoidance of or changes in movement within the action area. However, we do not expect the authorized harassment to result in significant cumulative adverse effects on the affected species or stocks. We do not expect that the issuance of an Authorization would result in any significant cumulative adverse effects on target or non-target species incidentally taken by harassment due to elevated sound levels or human presence.

Cumulative effects refer to the impacts on the environment that result from a combination of past, existing, and reasonably foreseeable human activities and natural processes. Because of the relatively small area of potential ensonification and the temporary nature of the ensonification along with the corresponding mitigation measures, the action would not result in synergistic or cumulative adverse effects that could have a substantial effect on any species.

The proposed survey does not target any marine species, and we do not expect it to result in any individual, long-term, or cumulative adverse effects on the species incidentally taken by harassment due to these activities. The potential temporary behavioral disturbance of marine species might result in short-term behavioral effects for these marine species within the disturbed areas, but we expect no long-term displacement of marine mammals as a result of the proposed action conducted under the requirements of the Authorization. Thus, we do not expect any cumulative adverse effects on any species as a result of our action.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA titled, *Issuance of Incidental Harassment Authorizations to BP Exploration (Alaska) Inc. for the Take of Marine Mammals Incidental to Seismic and Geohazard Surveys in the Beaufort Sea, Alaska*, we, NMFS, have determined that issuance of an Incidental Harassment Authorization to BP Exploration (Alaska) Inc. for the take, by Level B harassment only, of marine mammals incidental to conducting a 3D OBS seismic survey program in Prudhoe Bay in the Beaufort Sea, Alaska, in accordance with Alternative 1 in the supporting EA would not significantly impact the quality of the human environment, as described in this FONSI and in the EA.

In addition, we have addressed all beneficial and adverse impacts of the action to reach the conclusion of no significant impacts. Accordingly, the preparation of an Environmental Impact Statement for this action is not necessary.

Perry Gayhardo

for Donna S. Wieting
Director, Office of Protected Resources,
National Marine Fisheries Service

JUN 24 2014

Date