



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 a Marine Mammal Protection Act Incidental Harassment Authorization
for Take Associated with Shell Offshore Inc.'s 2012 Camden Bay, Beaufort Sea,
Alaska Exploratory Drilling Program**

National Marine Fisheries Service

BACKGROUND

The National Marine Fisheries Service (NMFS) received an application from Shell Offshore Inc. (Shell) for an authorization to take small numbers of marine mammals, by harassment, incidental to conducting an offshore exploratory drilling program in Camden Bay in the Beaufort Sea, Alaska, during the 2012 open-water season. 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 Incidental Harassment Authorizations for the Take of Marine Mammals by Harassment Incidental to Conducting Exploratory Drilling Programs in the U.S. Beaufort and Chukchi Seas*. 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 a May 2012 Final EA (the EA) as the preferred alternative. Alternative 2 is entitled "Issuance of IHAs with Required Mitigation, Monitoring, and Reporting Measures." Based on NMFS' review of Shell'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 the IHA or Shell's proposed activity would cause substantial damage to the ocean and coastal habitats. Several aspects of Shell's activity may impact coastal and ocean habitats, including: vessel traffic; vessel noise; and vessel anchoring; mudline cellar (MLC) construction; drilling noise and drill cuttings; permitted waste stream discharges; water withdrawals; small refueling spills; and oil spills from vessel accidental spills or well releases. The primary types of impacts would be acoustic in nature, which would not affect physical habitat features, such as substrates and water quality. While other aspects of the program may directly affect ocean and coastal habitats, such as discharges, those impacts are not expected to cause substantial damage. As part of the Camden Bay program, Shell will voluntarily collect drilling muds and cuttings and certain waste discharge streams and dispose of those wastes at an approved onshore facility. In addition, due to the remote chance for an oil spill by Shell's drilling program in 2012, and the relatively short time period the activity will remain on-site, no significant impacts on benthic resources are expected.

The eastern U.S. Beaufort Sea has not been identified as containing EFH. While drilling vessels and support vessels will transit through the Chukchi Sea, where EFH has been identified and described for five species of Pacific salmon (pink [humpback], chum [dog], sockeye [red], chinook [king], and coho [silver]) occurring in Alaska, the issuance of an IHA for Shell's Beaufort Sea exploratory drilling program is 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 issuance of the IHA to authorize the take of marine mammals by Level B harassment incidental to Shell's exploratory drilling program would not have a substantial impact on biodiversity or ecosystem function within the affected area. The impacts of the exploratory drilling program 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. The zone for potential injury around the drilling vessel is approximately 33 ft (10 m). While the zone for potential injury is slightly larger for the airguns (0.77 mi [1,240 m]), this activity would only occur for approximately 10-28 hours over the course of the entire four month operating season. Additionally, most invertebrates do not contain organs subject to injury by underwater sounds. The IHA anticipates, and would

authorize, Level B harassment only, in the form of temporary behavioral disturbance, of several species of cetaceans and pinnipeds. No injury (Level A harassment), serious injury, or mortality is anticipated or authorized, and the Level B harassment is not expected to affect biodiversity or ecosystem function.

The potential for Shell'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 Final 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 Camden Bay, Beaufort Sea, Alaska, area.

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 IHA or Shell's proposed operations to have a substantial adverse impact on public health or safety. The constant 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. An oil spill (which is not authorized by the IHA, making it a prohibited action if one should occur) is highly unlikely (see response to question 6), and Shell has implemented measures to ensure that one does not occur, and if one did occur, that it can be cleaned up quickly and efficiently. As described in the response to question 5, mitigation measures imposed by NMFS will prohibit Shell from conducting the activity when North Slope Borough subsistence whalers are hunting bowhead whales in the fall in the area of Shell's operations, thereby minimizing the risk to them.

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 IHA 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 exploratory drilling program. No injury (Level A harassment), serious injury, or mortality is anticipated or proposed to be authorized. Behavioral effects may include temporary and short-term displacement of cetaceans and pinnipeds from within certain ensonified zones. 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.” 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.

On January 10, 2012, 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 issuance of an IHA to Shell to take marine mammals incidental to conducting an offshore exploratory drilling program in Camden Bay. In April, 2012, NMFS finished conducting its section 7 consultation and issued a Biological Opinion, and concluded that the issuance of the IHA associated with Shell’s 2012 Beaufort Sea drilling program 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)¹ will be required via the IHA to avoid conflicts between industry activities and Alaska Native subsistence activities in the Beaufort and Chukchi Seas. Shell also signed the 2012 Conflict Avoidance Agreement (CAA) with the Alaska Eskimo Whaling Commission (AEWC), which requires measures to reduce impacts to bowhead whales, several of which will be incorporated into the issued IHA.

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 exploratory drilling for oil and gas deposits. 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; 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 and beluga whale hunting is the key activity in the

¹ 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.

subsistence economies in and around the Beaufort and Chukchi Seas. 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. Harvesting of beluga whales generally occurs in the Chukchi Sea communities between April and July, which is mainly outside of the timeframe of Shell's proposed operations. The fall bowhead whale hunts conducted by the communities of Kaktovik, Nuiqsut, and Barrow would co-occur temporally with the proposed exploratory drilling program. However, Shell will cease operations on August 25 and move all equipment out of Camden Bay until the close of the fall bowhead harvests conducted by Kaktovik and Nuiqsut. Equipment will be moved to a location agreed upon by both Shell and the AEW in the 2012 CAA. Barrow lies approximately 300 mi (484 km) west of Shell's proposed operations; therefore, whalers would not be displaced by Shell's activities. Adverse impacts are not anticipated on sealing activities since the majority of hunts for seals occur in the winter and spring, when Shell will not be operating. Sealing activities in the Colville River delta area, which co-occur temporally, occur more than 100 mi (161 km) from Shell's proposed Camden Bay drill sites. Additionally, transits through the Chukchi Sea at the start of the season will be done far enough offshore to avoid interfering with the summer beluga hunts in Kasegaluk Lagoon. Lastly, Shell will demobilize by October 31 so that transit through the Bering Strait is completed by November 15 so as to avoid impacts to late fall hunting by the communities on St. Lawrence Island.

To avoid having a significant social or economic impact, Shell will implement the measures contained in the signed CAA and the POC. Therefore, NMFS has determined (based on the above stated reasons and the analysis contained in the EA) that neither issuance of the IHA nor Shell'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: Although there is some lack of agreement within the scientific and stakeholder communities about the potential effects of noise on marine mammals, there is not a substantial dispute about the size, nature, or effect of NMFS' proposed action. The existence of some disagreement about the effects of noise was demonstrated by a National Research Council (NRC, 2005) report and by the lack of consensus among participants in the Marine Mammal Commission's Advisory Committee on Acoustic Impacts on Marine Mammals (MMC, 2006). Over the past several years, comments and concerns regarding effects of noise from industry, environmental organizations, and Native Alaskan groups have focused mainly on: (1) questions and concerns related to NMFS' compliance with NEPA and the MMPA; and (2) criticism of the mitigation and monitoring measures proposed by NMFS. As noted elsewhere in this Finding of No Significant Impact and in NMFS' final IHA determination, NMFS is requiring, as proposed by Shell, 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 also made the Draft EA available to the public for comment on the NMFS permit website (<http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>). Issues and concerns raised during the 30-day public comment period have been addressed in the Final EA. NMFS also published a Notice of Proposed IHA in the *Federal Register* on November 7, 2011 (76 FR 68974), which allowed the public to submit comments for up to 30 days from the date of publication of the notice. During the public comment period, NMFS received nine comment letters from Alaska Native organizations, government entities, environmental non-governmental organizations, oil and gas industry groups, and other interested parties.

The comments primarily focused on: (1) requirements under the MMPA, NEPA and ESA; (2) impacts of noise and potential oil spills on marine mammals and the subsistence lifestyle of impacted communities; and (3) the mitigation and monitoring measures proposed by Shell and NMFS. In reviewing these concerns (which are addressed in NMFS' final IHA determination and the Final EA), NMFS determined that its actions are in full compliance with NEPA, the MMPA, the ESA and other statutes.

Based on comments received, there is a lack of agreement within the scientific and stakeholder communities about the potential for an oil spill to occur in the Beaufort Sea as a result of Shell's 2012 exploratory drilling program, the size of that potential oil spill, and the potential for the spilled oil to impact marine mammals and other marine life. The U.S. Department of the Interior's Bureau of Ocean Energy Management (BOEM) evaluated the potential for an oil spill in its EA for the Shell Offshore Inc. 2012 Revised Outer Continental Shelf Lease Exploration Plan Camden Bay, Beaufort Sea, Alaska, which NMFS incorporates by reference into its Final EA. BOEM's EA (and Shell's associated exploration plan) includes robust analyses of the potential for oil spills from the proposed exploratory drilling program. These documents found the likelihood of a large ($\geq 1,000$ barrels) or very large ($\geq 150,000$ barrels) crude oil spill from Shell's 2012 Camden Bay, Beaufort Sea, exploratory activities to be non-existent. The large and very large crude oil spill occurrence estimates are based on: (1) the low rate of outer continental shelf (OCS) exploratory drilling well-control incidents spilling fluids per well drilled; (2) since 1971, only one very large spill has occurred during temporary abandonment out of more than 15,000 exploratory wells drilled; (3) the low number of exploration wells proposed in this action; (4) no crude oil would be produced and the wells would be permanently plugged and abandoned; (5) the history of Arctic OCS exploration spills, all of which have been small; and (6) no small spills occurred while drilling 36 wells in the Arctic OCS. No information was provided to NMFS during its comment period on Shell's IHA on a different oil spill analysis, and the comments simply questioned the current analysis. Because an oil spill is not part of the specified activity and the chance of a large or very large oil spill is highly unlikely, the proposed action is not expected to have significant effects on the environment. In the event that there was an oil spill of any size, Shell is utilizing the best available technology to clean up any spilled oil.

Finally, Inupiat concerns on the potential impact on their traditional lifestyle have been addressed through both the mitigation and monitoring measures in the IHA, POC, and the

signed 2012 CAA. As a result, Shell will avoid significant cultural impacts. NMFS continues to make its determinations under the MMPA based on the best available science. As a result, while certain segments of the public continue to believe that offshore oil and gas exploration in U.S. waters is controversial, NMFS has determined that there is no substantial dispute concerning the size, nature or effect 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: Shell's proposed exploratory drilling program 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 whales migrate through the area. However, Shell's activities will not commence until after the spring migration is complete through the area. The fall westward bowhead whale migration typically begins in late August or early September and continues throughout October. Whales that begin migrating at the beginning of the season will not encounter Shell's operations, as activities will shutdown on August 25 and will not resume until after the fall bowhead whale hunts are closed in Kaktovik and Nuiqsut (likely mid-September). Mitigation measures are in place to reduce impacts once operations resume. Some ice seals conduct important life functions in the Beaufort Sea, such as making subnivean lairs for pupping; however, those activities do not co-occur temporally with Shell's operations. 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 IHA 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, but there is no substantial dispute about the size, nature, or effect of this particular action. While NMFS' judgments on impact thresholds are based on somewhat limited data, enough is known for NMFS and the regulated entity (here Shell) 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 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: Shell's conduct of the exploratory drilling program and NMFS' action of issuing an IHA are interrelated. These actions 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 (BP's Northstar facility, exploratory drilling proposed by Shell in the Chukchi Sea, and seismic surveys proposed for 2012 by BP and ION) and 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 the exploratory drilling program impacts on marine mammals will be limited and will not rise to the level of "significant," especially considering the timeframe of the proposed activities and the mitigation and monitoring measures.

NMFS has issued Incidental Take Authorizations for seismic surveys (to the oil and gas industry, NSF, USGS, and other organizations) that may have resulted in the harassment of marine mammals, but the surveys are dispersed both geographically (throughout the world) and temporally, are short term in nature, and all include required monitoring and mitigation measures to minimize impacts. There is no indication, based on our review of the data from past seismic surveys, that marine mammals have experienced significant adverse impacts from these activities. Thus, NMFS has determined that 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 IHA issued to Shell and outreach and coordination with Alaska Native communities 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. Shell'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' issuance of the IHA is not expected to result in the introduction or spread of non-indigenous species. Shell will also collect drilling muds and several waste discharge streams and discharge them at an approved onshore facility.

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)(D) 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 an IHA, 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 MMPA (by submitting an application for an IHA) for this action.

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: Shell's exploratory drilling program and NMFS' issuance of an IHA are not expected to result in any significant adverse effects on species incidentally taken by harassment. There have been no other exploratory drilling 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 will be operating a similar program in the Chukchi Sea in 2012. Additionally, BP and ION will both be conducting seismic survey programs in the Beaufort Sea in 2012. However, because of the distance between Shell's two exploratory drilling programs, there will be no overlap of the ensonified areas of these two operations. Additionally, there will be no overlap in the applicable ensonified areas of Shell's Beaufort Sea

exploratory drilling program and BP's seismic survey. ION's seismic survey will not begin until early to mid-October, which is towards the end of Shell's activities, thus reducing the overlap in activities. NMFS does not believe the effects of this action combined with effects from the other operations and surveys would result in cumulative adverse effects.

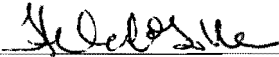
As described in the EA, anthropogenic activities such as commercial fishing, subsistence hunting and fishing, oil and gas development, and vessel traffic all have the potential to take marine mammals in the Arctic Ocean to varying degrees either through behavioral disturbance (vessel noise, and low-, mid-, and high-frequency sound) or more direct forms of injury or death (hunting, vessel collisions). Impacts of the proposed exploratory drilling program in Camden Bay 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 exploratory drilling program is not expected to result in injuries or deaths of marine mammals. Thus, the combination of Shell'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, and no injury, serious injury, or mortality is anticipated or authorized. Therefore, the proposed action is not expected to contribute to or result in a cumulatively significant impact to marine mammals or other marine resources.

Because of the relatively short time that the project area will be ensonified, 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). The survey would also not be expected to have a substantial cumulative effect on any seabirds, fish, or invertebrate species. Although some loss of fish and other marine life might occur as a result of being in close proximity to the seismic airguns, this loss is not expected to be significant, and would only occur for approximately 10-28 hours over the entire four month season of operations. Additionally, adult fish near seismic or drilling operations are likely to avoid the immediate vicinity of the source due to hearing the sounds at greater distances, thereby avoiding injury. 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.

DETERMINATION

In view of the information presented in this document and the analyses contained in the supporting *Environmental Assessment for the Issuance of Incidental Harassment Authorizations for the Take of Marine Mammals by Harassment Incidental to Conducting Exploratory Drilling Programs in the U.S. Beaufort and Chukchi Seas*, prepared by NMFS, it is hereby determined that the issuance of an IHA to Shell for the take, by Level

B harassment only, of small numbers of marine mammals incidental to conducting an offshore exploratory drilling program in the Camden Bay area of the Beaufort Sea, Alaska, 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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Date