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VIA Facsimile and EMAIL

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Re: Marine Mammals: Incidental Take of Polar Bears and Pacific Walrus During Specified Activities; Small Take Authorizations for Open-Water Seismic Surveys in the Chukchi Sea. (71 Fed. Reg. 26770)

These comments on the U.S. Fish and Wildlife Service's ("FWS's") proposed authorizations of incidental take of small numbers of polar bears and Pacific walrus related to oil and gas industry seismic surveys in the Chukchi Sea (71 Fed. Reg. 26770, May 8, 2006) are submitted on behalf of the Center for Biological Diversity, Earthjustice, Pacific Environment, Alaska Coalition, Alaska Wilderness League, Natural Resources Defense Council, Greenpeace Inc, Oceana and the Northern Alaska Environmental Center. We are concerned about the impact of oil and gas exploration activities on polar bears and Pacific walrus, their habitats, and on the communities dependant on these species. We therefore urge FWS not to issue any take authorization for these species related to oil and gas industry seismic surveying unless and until FWS can ensure that mitigation measures are in place that truly avoid adverse impacts to the species, and only after full and adequate public participation has occurred and environmental review of the cumulative impacts of such activities on these species and their habitats has been undertaken. Unfortunately, the proposed regulations do not meet these standards and therefore violate the Marine Mammal Protection Act ("MMPA"), the Endangered Species Act ("ESA"), the National Environmental Policy Act ("NEPA"), and other governing statutes and regulations.

I. Marine Mammal Protection Act

FWS's proposed authorization of take for all oil and gas related activities does not comply with the Marine Mammal Protection Act ("MMPA"). Congress enacted the MMPA in 1972 in response to widespread concern that "certain species and population stocks of marine mammals are, or may be, in danger of extinction or depletion as a result of man's activities." 16 U.S.C. § 1361(1). The legislative

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history states that the purpose of the MMPA is to “prohibit the harassing, catching, and killing of marine mammals by U.S. citizens or within the jurisdiction of the United States” without a permit. H. Rep. No. 92-707, reprinted in 1972 U.S.C.C.A.N. 4144. The primary mechanism by which the MMPA protects marine mammals is through the implementation of a “moratorium on the taking” of marine mammals. 16 U.S.C. § 1371(a). Under the MMPA, the term “take” is broadly defined to mean “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.” Id. §1362(13). “Harass” is further defined to include acts of “torment” or “annoyance” that have the “potential” to injure a marine mammal or marine mammal stock in the wild or have the potential to “disturb” them “by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.” Id. § 1362(18); 50 C.F.R. § 216.3 (defining “Level A” and “Level B” harassment).

The MMPA provides several narrow exceptions to the moratorium on take. Relevant here, FWS may, upon request, authorize take in the form of harassment by an Incidental Harassment Authorization (“IHA”) for a period of not more than one year, provided certain conditions are met. To receive such take authorization, an activity (i) must be “specified” and limited to a “specified geographical region,” (ii) must result in the incidental take of only “small numbers of marine mammals of a species or population stock,” (iii) can have no more than a “negligible impact” on species and stocks, and (iv) will not have “an unmitigatable adverse impact on the availability of such species or stock for taking for subsistence uses” by Alaska Natives. Furthermore, in issuing an authorization, FWS (v) must provide for the monitoring and reporting of such takings and (vi) must prescribe methods and means of effecting the “least practicable adverse impact” on the species or stock and their habitat. 16 U.S.C. § 1371(a)(5)(D). As discussed more fully below, FWS has not demonstrated that the proposed regulations will meet any of these standards.

As a threshold issue, an IHA pursuant to 16 U.S.C. § 1371(a)(5)(D) is only available if the activity has no potential to result in mortality to a marine mammal. Id. at § 1371(a)(5)(D)(i). If such injury or mortality is possible, take can only be authorized pursuant to a Letter of Authorization (“LOA”) consistent with regulations promulgated pursuant to 16 U.S.C. § 1371(a)(5)(A) and 50 C.F.R. § 18.27. Because FWS has not promulgated any such regulations related to seismic surveys in the Chukchi Sea, and because such surveys carry the real potential of death to marine mammals, neither an IHA nor an LOA can be issued for the proposed seismic surveys.¹

In our NEPA comments on the Programmatic Environmental Assessment for Arctic Outer Continental Slope Seismic Surveys (OCS EIS/EA MMS 2006-019) (“PEA”) prepared by the Minerals Management Service (“MMS”) we referenced the scientific literature linking seismic surveys with marine mammal stranding events and MMS’s failure to address such studies. See Exhibit A at 4 and

¹ FWS has previously promulgated regulations authorizing take of polar bears and walrus in the Chukchi and Beaufort seas, but these regulations have expired, new proposed regulations for the Beaufort Sea have not yet been finalized, and in any event, these new regulations do not authorize any take in the Chukchi Sea. See 56 Fed. Reg. 27463 (Chukchi Sea incidental take regulations expired June 14, 1996); 50 C.F.R. § 18.123 (Beaufort Sea regulation expired March 28, 2005); 71 Fed. Reg. 14446 (proposed Beaufort Sea take regulations).

28.² FWS has likewise utterly failed to address these studies, and the threat of serious injury and mortality to marine mammals from seismic surveys they demonstrate, not only runs afoul of NEPA, but also renders FWS's conclusory determination that serious injury or mortality will not occur from the proposed seismic surveys arbitrary and capricious. See Center for Biological Diversity v. National Science Foundation, 2002 WL 31548073 (N.D. Cal., Oct. 30, 2002) (Court issued temporary restraining order halting seismic surveys after finding that "if the airgun blasting continues, it is virtually inevitable that marine mammals will be injured, resulting in irreparable harm to the environment."). Moreover, FWS cannot authorize some take (i.e. harassment) if other unauthorized take (i.e. serious injury or mortality) may also occur. Kokechik Fishermen's Association v. Secretary of Commerce, 839 F.2d 795, 801-02 (D.C. Cir. 1988). ("It is the duty of the Secretary to take a systemic view of an activity's effect on marine mammals. A view that the permit process functions merely to determine which takes will be exempted from civil penalties is inconsistent with this duty because it allows -- subject to the civil penalty price -- illegal takings of other protected marine mammals."). In sum, because the proposed seismic surveys have the potential to result in lethal take to walrus and polar bear, FWS cannot issue the requested IHAs.

Even if an IHA were the appropriate vehicle to authorize take for the proposed seismic surveys, because the proposed IHAs are inconsistent with the statutory requirements for issuance, they cannot lawfully be granted by FWS.

A. Specified Activities and Specified Geographic Region

The MMPA allows take authorization only for explicitly "specified activities" within a "specified geographic region." 16 U.S.C. § 1371(a)(5)(D)(i). The proposed authorizations do not do this.³ With regard to the seismic surveys in the Chukchi Sea, the IHAs do not adequately "specify" the location of the planned activities. FWS's regulations also explicitly require an applicant for take authorization to provide the "date(s) and duration" of the activity and "the specific geographic region where it will occur." 50 C.F.R. § 18.27(d)(ii).⁴ None of the applications meet these requirements.⁵

² FWS apparently is not relying on the PEA prepared by MMS for NEPA purposes. See 71 Fed. Reg. at 26780 (describing separate Environmental Assessment ("EA") prepared by FWS). The FWS EA itself refers to the MMS PEA for the description of the physical environment but otherwise makes no mention of it. FWS EA at 18. On May 10, 2006 we submitted comments on the MMS PEA. Those comments are attached as Exhibit A and incorporated by reference into this letter.

³ FWS has received separate IHA applications from Shell Offshore, Inc. and WesternGeco, Inc. ("Shell"), ConocoPhillips Alaska, Inc. ("CPAI"), and GXT Houston ("GXT"). 71 Fed. Reg. 26770. FWS intends to issue separate IHAs to each requester. 71 Fed. Reg. at 26780. Given the similarity of the IHA requests and the likely similar impacts, FWS chose to analyze the impacts of the three IHAs collectively in one Federal Register document and one EA. 71 Fed. Reg. at 26771. Our comments follow the same format, referring to the three IHAs collectively unless otherwise noted.

⁴ It is unclear whether FWS's regulations at 50 C.F.R. § 18.27 actually allow the issuance of IHAs. These regulations were promulgated prior to the 1994 amendments to the MMPA which added the IHA process. Despite specific Congressional direction to do so, FWS has not updated its take authorization regulations subsequent to these amendments. See H. Rep No. 103-439 at 29-30 ("New subparagraph D assumes the Secretary will use general rulemaking authority available under section 112 of the Act to establish a process for granting authorizations in the case of small takes by harassment in the Arctic Ocean."). In contrast, the National Marine Fisheries Service now has separate regulations for the process of authorizing incidental take through regulations pursuant to 16 U.S.C. § 1371(a)(5)(A), and through IHAs pursuant to

In its application for the Chukchi IHA, Shell refuses to comply with this statutory requirement: “Since the Chukchi deep seismic program is being conducted as a pre-lease activity, the exact locations where operations will occur remain confidential for business competitive reasons.” Shell IHA Application at 3. Shell is free to prioritize its actions according to “business competitive reasons” but not at the expense of complying with the mandates of the MMPA. If Shell wishes to receive the privilege of being allowed to carry out activities in federal waters that harass legally protected marine mammals, it must comply with the take authorization provisions of the MMPA and actually specify the location of its actions. Because it has not done so, FWS cannot lawfully issue Shell the IHA.

CPAI and GXT do little better. While not explicitly acknowledging that they are withholding information on the location of their planned surveys, the areas they describe are sufficiently large that they fall out of any rationale definition of “specified geographical region.” CPAI describes their proposed survey area as follows:

The geographic region of activity encompasses an area of 2,500 to 3,600 square (sq) km in the northeastern Chukchi Sea. The approximate boundaries of the region are within 158°00' W and 169°00' W and 69°00' N and 73°00' N, with the eastern boundary located parallel to the coast of Alaska, north of Point Hope to Point Barrow, and ranging 40–180 km off the coast.

CPAI IHA Application at 3. GXT provides a similarly unhelpful description:

The proposed seismic survey activities will take place across a large portion of the eastern and northern Chukchi Sea (Fig. 1). The overall area within which the seismic survey will occur is located approximately between 69°15' and 75°00'N, and between 154°30'W and 169°00'W (Fig. 1). The entire Chukchi Sea survey area occurs within the Exclusive Economic Zone (EEZ) of the U.S.

GXT IHA Application at 10.⁶ FWS’s notice of the proposed issuance of the IHAs incorporates Shell and CPAI’s descriptions of the location of the planned surveys verbatim. 71. Fed. Reg. at 26772. The

16 U.S.C. § 1371(a)(5)(D). Compare 50 C.F.R. § 216.105 with 50 C.F.R. § 216.107. FWS’s regulations state they implement take authorization under 16 U.S.C. § 1371(a)(5) but only describe a process for issuing regulations consistent with 16 U.S.C. § 1371(a)(5)(A). Nevertheless, in the proposed IHA notice, FWS states that 50 C.F.R. § 18.27 applies. See 71 Fed. Reg. at 26771. While we believe that the only appropriate vehicle for authorizing take associated with the proposed seismic surveys would be a regulation promulgated according to 16 U.S.C. § 1371(a)(5)(A), given FWS is proceeding under 16 U.S.C. § 1371(a)(5)(D), we will hold FWS to its statement that the provisions of 50 C.F.R. § 18.27 apply.

⁵ Even if the proposed IHAs were consistent with the MMPA’s requirement that authorizations be within a “specified geographic region,” because the impacts from the proposed activities extend beyond the defined “specified geographic region,” and the cumulative impacts on the affected stocks of polar bear and walrus certainly extend beyond the defined area, FWS has improperly limited the geographic scope of its analysis in making its “small numbers” and “negligible impact” finding under the MMPA, as well as in its NEPA analysis.

⁶ While GXT states that the entire survey will occur within the U.S. EEZ, the referenced figure appears to show the zone of activity encompassing areas outside the EEZ. See GXT IHA Application, Fig 1. While the requirements of the MMPA apply to GXT’s activities regardless of whether they are conducted within or outside of the EEZ, the apparent disconnect

notice, however, provides no information on the location of GXT's planned surveys.⁷ In sum, none of the requested IHA's can be granted until and unless the applicants resubmit applications consistent with the requirements of the MMPA that actually describe in sufficient detail the "specified geographic region" where the proposed seismic surveys will take place.⁸

B. Small Numbers and Negligible Impact

An authorization of incidental take of marine mammals from specified activities can only be promulgated if such take will be limited to "small numbers" and have a "negligible impact" on the species or stock. 16 U.S.C. § 1371(a)(5)(A); 50 C.F.R. § 18.27. These are separate and distinct statutory requirements. *Id.* As an initial matter, the proposed authorization is legally infirm as it explicitly relies on a regulatory definition of "small numbers" that is at odds with the statute and has been struck down by the courts. The FWS defines "small numbers" in such a way that conflates it with the "negligible impact" determination and impermissibly renders it meaningless:

Small numbers means a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock.

50 C.F.R. § 18.27(c). As a U.S. District Court concluded in overturning an identical regulatory definition of the National Marine Fisheries Service ("NMFS"), "[t]he plain language indicates that 'small numbers' is a separate requirement from 'negligible impact.' To treat them as identical would appear to render the reference to 'small numbers' mere surplusage." Natural Resources Defense Council v. Evans, 232 F.Supp.2d 1003, 1025 (N.D.Cal. 2002); see also Natural Resources Defense Council v. Evans, 364 F. Supp. 2d 1083 (N.D.Cal. 2003). The court noted that by conflating the two terms, NMFS has "eliminated the ability of the two terms to act, as intended, as separate checks on the Secretary's authority." 232 F.Supp.2d at 1026. Congress clearly intended "small numbers" and

between the map and written description provided by GXT are further evidence of the applicant's failure to adequately specify the location of the planned activities.

⁷ Information on the location of GTX's planned surveys is not contained in either the Federal Register notice or the EA prepared by FWS. It is only contained in the IHA application submitted by GXT, which itself is not available on FWS's webpage or acknowledged as being publicly available in the Federal Register notice. Even if the information in GTX's application could be deemed to meet the MMPA's requirements for "specificity," FWS's failure to include this information in the documents available for public comment renders the proposed IHA infirm.

⁸ In addition to not adequately specifying the geographic region where the seismic surveys will occur, the IHA applications fail to adequately specify the "date(s) and duration" of these activities as required by 50 C.F.R. § 18.27(d)(ii). Moreover, the various listed dates for Shell's seismic surveys are confusing and contradictory. For example, the proposed IHA states that "Shell expects to conduct operations in the Chukchi Sea between July 15 and November 30, 2006." 71 Fed. Reg. at 26771. A couple paragraphs later FWS states that "Phase 1 would commence after June 15, 2006." *Id.* at 26772. Elsewhere, the proposed IHA states that "No seismic activities will take place in the Chukchi Sea before June 1, 2006." *Id.* at 26779. Similarly, FWS describes the proposed authorizations as allowing take from "June 1, 2006, and November 30, 2006." *Id.* at 26770. Finally, FWS states that "Seismic activities would be confined to the open-water season, which will not exceed the period of July 1 to November 30." *Id.* at 26779. FWS's "small numbers" and "negligible impacts" conclusions are based in part on Shell and the other applicants theoretically not operating during periods when marine mammal concentrations are at their highest. These conclusions are, however, highly suspect given that FWS seems utterly confused as to when and where the applicants will actually be operating.

“negligible impacts” to operate as two separate standards. Id. citing H.R. Rep. No. 97-228 (1981), reprinted in 1981 U.S.C.C.A.N. 1458, 1981 WL 21352 at *1469. By relying on this unlawful standard in the proposed authorizations, FWS is committing prejudicial error rendering invalid any IHAs issued.

Notwithstanding the unlawful regulation, nowhere in the proposed IHA is it apparent that FWS has made a separate finding that only “small numbers” of Pacific walrus and polar bears will be affected by the proposed authorizations. In fact, there is no apparent numerical estimate of the number of walrus and polar bears that will be taken by any of the three applicants individually or cumulatively during the proposed seismic surveys. The closest FWS comes to this is with regard to walrus, where, due to the purported low density of overlap with the seismic surveys, FWS states that “takes are likely to be limited to harassment of a relatively small number of animals.” 71 Fed. Reg. at 26778. For polar bears, FWS does not even make this vague assertion. In short, FWS simply fails to make the “small numbers” findings required by the MMPA and therefore cannot lawfully issue the proposed take authorization.⁹

While FWS makes no effort to estimate the numbers of polar bears and walrus harassed by the seismic surveys, two of the three IHA applications provide such numbers. However, even taken at face value, these numbers, which, as discussed below, are likely underestimates, provide no support for a lawful “small numbers” finding.

Shell’s IHA contains no numerical estimate of numbers of walrus and polar bear harassed. Shell attempts to dodge this issue by simply asserting that the number of individuals encountered will be low compared to old estimates of population sizes:

Although, no reliable abundance numbers currently exist for Pacific walrus or the Chukchi/Bering seas polar bear stock, the potential number of exposures would be a very small fraction of earlier abundance estimates.

Shell IHA Application at 13. In contrast, in its application to NMFS, Shell made an estimate of the numbers of marine mammals likely to be harassed, and concluded that 2,628 marine mammals under NMFS’s jurisdiction would be taken in the Chukchi Sea. Shell NMFS IHA Application at 16. NMFS, however, considered Shell’s calculations improper and instead concluded that over 32,500 marine mammals might be taken in the Chukchi Sea.¹⁰ 71 Fed. Reg. 26055, 26062. Why Shell failed to calculate the estimated take of polar bears and walrus is unclear; perhaps the numbers were so high that Shell feared they would not meet even FWS’s expansive interpretation of the term “small.” In any event, because Shell did not provide in its application an estimate of the numbers of walrus and polar bears likely to be taken by its activities, its application for an IHA should be rejected as incomplete.

Both CPAI and GXT provide estimates of polar bear and walrus take in their applications. These estimates, even if correct, would not support a “small numbers” determination. CPAI concludes

⁹ As discussed in the NEPA section of this letter, FWS’s EA also completely fails to estimate the numbers of polar bears and walrus that will be harassed by the seismic surveys.

¹⁰ Remarkably, NMFS somehow concluded that 32,500 represents a “small number” of marine mammals. NMFS’s conclusion will not withstand judicial scrutiny, and FWS should not repeat that agency’s errors.

that 3,652 walrus and 11 polar bears will be taken. CPAI IHA Application at 9. Again, over 3600 walrus cannot be considered a “small” number. Moreover, CPAI gets to this purportedly “small” number through some dubious calculations. First, CPAI assumes no take will occur in July and August. CPAI IHA Application, Table 2. Without explanation, CPAI makes this assumption even though elsewhere in their application they state that “walrus will be in parts of the project area from about June/July to October/November.” CPAI IHA Application at 4. Neither CPAI nor FWS explain why seismic surveys in walrus habitat will take zero walrus during July and August. Additionally, CPAI makes its calculations on admittedly inaccurate and under-representative density estimates. A 15 year old study that did not adjust for walrus in the water, calculated a density of 0.73 walrus per km². CPAI IHA Application at 10. Rather than adjust this density upward to account for walrus in the water, CPAI simply states that “there are no published correction factors to adjust the values for missed animals, so take was based on the unadjusted value.” Id. But even ignoring the walrus in the water would give CPAI too high a number, so, again without adequate explanation, CPAI takes the already low density estimate of 0.73 walrus per km² and cuts it in half. Id. The density that CPAI uses then is 0.365 walrus per km². Id. In sum, only by ignoring take occurring in the first two months of its survey, ignoring walrus in the water (i.e. the walrus most likely to be impacted by the noise from the seismic surveys), and, finally, cutting the resultant estimate in half, can CPAI come up with the “small” number of 3652 walrus taken. CPAI relies on similar “logic” to come to its polar bear take estimate, but goes a step further and reduces the density variable in its calculations by 75%. Id. at 11. FWS cannot reasonably accept CPAI’s methodology in processing the IHA request.

While Shell forgoes making any take estimate, and CPAI relies on bald assertions to come up with its “small” numbers estimate, GXT take a different approach, hiding its arbitrary estimate behind multiple pages of contradictory and outdated analysis. GXT concludes that 2359 walrus and 186 polar bears may be exposed to sounds of 160 dB re 1 microPa (rms) or greater. GXT IHA Application at 24. As discussed below, we believe 160 dB is an inappropriate threshold to consider for the onset of harassment. However, even if we accept 160 dB as the correct measure, it is clear that GXT has grossly underestimated the number of walrus likely to be exposed to this level of sound. GXT estimates that a received level of 160 dB will be experience at 5684 m from the vessel. GXT IHA Application at 9. Nevertheless, GXT states that exposure estimates for walrus were calculated “assuming that all of the animals within 1 km of the vessel will be exposed to ≥ 160 dB (rms) while none of the animals beyond 1 km of the vessel will be exposed.” Id. at 22. In other words, even though walrus in the water over 5 km from the vessel would be exposed to sounds greater than 160 dB, GXT assumes such walrus simply do not exist. The basis for this assumption apparently is GXT’s belief that only walrus within 1 km of the ship will enter the water due to the approach of the ship. Even if this were so, it ignores the reality that walrus spend some portion of their existence in the water naturally. Any such walrus in the water within 5 km of the seismic vessel would be exposed to sounds over 160 dB but not factor into GXT’s take calculations. GXT’s estimate of walrus exposed to sounds greater than 160 dB also suffers from the fatal flaw of ignoring walrus in deeper water. See GXT IHA Application at 22 (“walrus exposure estimates have only been calculated on survey tracklines in water depths <200 m.”). As discussed below with regard to the impacts of climate change, walrus are being found in deep waters far from the ice edge. Failure to account for such animals ignores the best available science. GXT repeats each of these errors in making its estimates of polar bear exposures as well.

Assuming for a moment the accuracy of CPAI and GXT estimates (and assuming comparable numbers for Shell), the takes anticipated do not meet any rational definition of “small numbers.” Individually, each of the applicants would take approximately 3000 walrus while the collective take would be on the order of 9000 or more. Given the MMPA is designed to protect not just populations, but individual marine mammals, any number in the thousands simply cannot be considered “small.” See 16 U.S.C. § 1362 (18)(A) (definition of “harassment” expressly applies to acts that affect “a marine mammal or marine mammal stock in the wild.”)(emphasis added); see also Natural Resources Defense Council v. Evans, 279 F.Supp.2d 1129, 1157 (N.D. Cal. 2002) (“In expressing concern about harassment to ‘a marine mammal,’ Congress was concerned about harassment to individual animals.”).

The applicants’ estimates that thousands of walrus would be harassed under the proposed authorizations are based on the assumption that sounds below 160 dB re 1 microPa (rms) do not constitute harassment. This assumption is incorrect, and therefore even these huge numbers represent an underestimate of the possible true impact. As noted above, an activity can constitute harassment if it has the “potential” to affect marine mammal behavior:

(ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

16 U.S.C. § 1362(18)(A) (definition of “harassment”). In our NEPA comments on the MMS PEA for the proposed seismic surveys we pointed out the numerous studies showing significant behavioral impacts from received sounds well below 160 dB. Exhibit A at 27-28. These impacts clearly meet the statutory definition of harassment and demonstrate that the numbers of marine mammals estimated to be taken by the seismic surveys likely constitute a significant underestimate. FWS’s “small numbers” conclusion is therefore arbitrary and capricious for this reason as well.

Another factor causing FWS’s “small numbers” findings to be suspect is the fact that the Arctic is undergoing rapid change as a result of global warming. The FWS is clearly aware of the significant impacts of global warming on the Arctic in general, and on Alaska and the walrus and polar bear specifically.¹¹ The retreat of the sea ice from the Alaska coast has had numerous impacts on polar bears and walrus that are relevant here. For example, a study by MMS documented large numbers of polar bears seen swimming far from shore:

During aerial surveys in early-September, 2004, an unusually large number of polar bears were seen swimming > 2 km offshore near Kaktovik. Subsequently, polar bear carcasses were seen floating offshore. Extrapolation of survey transect data suggests that on the order of 40 bears may have been swimming and that many of those probably drowned as

¹¹ On February 9, 2006 FWS made a finding that listing of the polar bear under the Endangered Species Act as a threatened species due to the impacts of global warming “may be warranted.” 70 Fed. Reg. 6745. The Petition seeking listing of the polar bear, all supporting documents, and comments received are already on file with FWS at the same office to which these comments are being sent. We hereby incorporate by reference the Petition and those items submitted by the Center for Biological Diversity supporting the Petition into this letter and formally request that all documents related to the ESA rulemaking be considered by FWS in processing the proposed IHAs, and be included in the administrative record for the IHAs.

a result of rough seas caused by high winds. We speculate that mortalities due to offshore swimming during late-ice (or mild ice) years may be a relatively important and unaccounted source of natural mortality given energetic demands placed on individual bears engaged in long-distance swimming. We suggest that drowning-related deaths of polar bears may increase in the future if the observed trend of regression of pack ice and/or longer open water periods continues.¹²

This development is highly significant for the “small numbers” calculation. Simply put, more polar bears in the water means more polar bears are likely to be exposed to the impacts of seismic surveys. The calculations of the numbers of polar bears likely impacted by seismic surveys assumes polar bears do not swim long distances. This is no longer the case and therefore no longer the best available science. If FWS intends to issue any incidental take for polar bears it must carry out its “small numbers” analysis informed by the reality of the changed conditions in the Arctic as a result of global warming.

Impacts from climate change on walrus are also apparent and further discredit the assumptions used to calculate walrus take from the seismic surveys. A recent paper published in the peer-reviewed journal *Aquatic Mammals* documented several such impacts relevant to the proposed authorization.¹³ Specifically while on a research cruise in portions of the Chukchi and Beaufort seas overlapping in area with the proposed seismic surveys, scientists observed walrus calves separated from their mothers in deep waters:

Under conditions of rapid sea-ice retreat and dissolution, we observed at least nine Pacific walrus calves separated from adult females in waters as deep as 3,000 m in July and August 2004 in the Canada Basin of the Arctic Ocean.

Exhibit B at 1. The nine observed walrus calves are likely only a small fraction of the number of calves separated from their mothers in the water:

Given limited sea surface visibility from the ship, we surmise that many additional calves may have been separated in the overall study area.

Id. Putting aside for the moment the likely population level impacts of global warming which would preclude any “negligible impact” finding, the observation of significant numbers of walrus in deep water is completely at odds with the calculus used by the applicants and FWS to determine how many walrus would be harassed by the seismic surveys. See, e.g. GXT IHA Application at 22 (“walrus

¹² A scientific poster summarizing the study is available at <http://www.mms.gov/alaska/ess/Poster%20Presentations/MarineMammalConference-Dec2005.pdf>
See also Monnett et al. 2006, *Observations of mortality associated with extended open-water swimming by polar bears in the Alaskan Beaufort Sea*, *Polar Biology*, attached as Exhibit D

¹³ The study, L.W. Cooper, et al., 2006, *Rapid Seasonal Sea-Ice Retreat in the Arctic Could Be Affecting Pacific Walrus (Odobenus rosmarus divergens) Recruitment*, *Aquatic Mammals*, 32(1): 98-102, is attached as Exhibit B.

exposure estimates have only been calculated on survey tracklines in water depths <200 m.”). The IHA applications simply do not use the “best available science” and must therefore be denied.

FWS’s proposed “negligible impacts” findings suffer from many of the same flaws as the agency’s proposed “small numbers” findings. As an initial matter, FWS has no idea of the actual population status of the Pacific walrus or the Bering-Chukchi Seas Stock of polar bears. 71 Fed. Reg. at 26774 (“The current size and trend of the Pacific walrus population are unknown.”); 71 Fed. Reg. at 26775 (“A reliable population estimate is not available for the Bering-Chukchi Sea polar bear stock.”). Without this data, FWS cannot make a rational “negligible impact” finding. This is particularly so given there is real reason to be concerned about the status of both these populations. Such concerns were raised in a recent letter to FWS from the Marine Mammal Commission following the Commission’s 2005 annual meeting in Anchorage, Alaska. With regard to walrus, the Commission cautioned against assuming a stable population.

With dramatic changes in sea ice upon which walruses depend and in light of ongoing harvests in Alaska and Russia, it is possible that walrus abundance has declined.

MMC Jan. 25, 2006 Letter (Attached as Exhibit C). A recent article documenting the impacts of sea-ice retreat on the walrus also raises such concerns.

If walruses and other ice-associated marine mammals cannot adapt to caring for their young in shallow waters without sea-ice available as a resting platform between dives to the sea floor, a significant population decline of this species could occur. If these sightings of separated walrus calves are due to the rapid dissolution or retreat of sea-ice that was observed during the summer of 2004 (Stroeve et al., 2005), our observations have implications for the Pacific walrus population.

Exhibit B at 3-4. The authors concluded that global warming would have devastating impacts on the population.

Our observations raise the possibility that rapid seasonal sea-ice retreat could create a crisis for the Pacific walrus population in the Bering, Chukchi, and Beaufort Sea region.

Id. at 4.

Similar impacts have been described for the polar bear. See footnote 11, supra. And for the Bering-Chukchi Sea polar bear stock, climate change is not the only immediate threat; unsustainable harvest levels in Russia are also putting the stock at risk. In its letter to FWS, the Commission highlighted this problem as well.

The most immediate need for polar bear conservation in Alaska is implementing the agreement between the United States and the Russian Federation on the conservation of the Chukchi-Bering Seas polar bear population that straddles the boundary of the two countries. Given uncertainty about the status of this population, changes in their sea ice habitat due to changes in the arctic climate, and the combined level of Alaska and Russia

harvests (including exceptionally high catch levels recently in Russia), there is a growing sense of urgency within both the Alaska Native community and concerned government agencies to implement this agreement as quickly as possible.

Exhibit C at 2. Unfortunately the Agreement mentioned by the Commission has not been ratified and unsustainable hunting continues in Russia.

The MMPA is precautionary. In making its “negligible impact” determinations, FWS must give the benefit of the doubt to the species. As the D.C Circuit has repeatedly stated, “it is clear that ‘the Act was to be administered for the benefit of the protected species rather than for the benefit of commercial exploitation.’” Kokechik Fishermen’s Association v. Secretary of Commerce, 839 F.2d 795, 800 (D.C. Cir. 1988) citing Committee for Humane Legislation, Inc. v. Richardson, 540 F.2d 1141, 1148 (D.C. Cir. 1976). FWS seems to be ignoring this mandate in analyzing the impacts of the proposed seismic surveys. In enacting the MMPA, Congress clearly intended to place the burden on someone seeking to take a marine mammal to demonstrate that the activity would not have a negative impact. In cases, such as with the walrus and polar bear, where the population status is unknown, and therefore the impacts on the population cannot truly be known, this is precautionary approach is particularly important.

As the House committee report explained, the Act was deliberately designed to permit takings of marine mammals only when it was *known* that that taking would not be to the disadvantage of the species:

In the teeth of this lack of knowledge of specific causes, and of the certain knowledge that these animals are almost all threatened in some way, it seems elementary common sense to the Committee that legislation should be adopted to require that we act conservatively -- that no steps should be taken regarding these animals that might prove to be adverse or even irreversible in their effects until more is known. As far as could be done, we have endeavored to build such a conservative bias into the legislation here presented.

H.R. Rep. No. 92-707, *supra*, at 15.

Committee for Humane Legislation, 540 F.2d at 1150, citing H.R. Rep. No. 92-707. (Emphasis in original). Because the status of both the Pacific walrus and Bering-Chukchi Sea polar bear stock are unknown, FWS cannot conclude that seismic surveys which will harass thousands of individuals will have no more than a “negligible effect” on the stocks.¹⁴

The analyses in the proposed IHAs are largely confined to looking at the immediate effects of the planned seismic surveys in the Chukchi Sea on polar bear and walrus. We believe FWS must consider these effects together with other oil and gas activities that affect these species, stocks and local populations, other anthropogenic risk factors such as climate change, and the cumulative effect of

¹⁴ Nor can claim the lack of available information on the status of walrus and polar bear justifies its decisions. Brower v. Evans, 257 F.3d 1058, 1071 (9th Cir. 2001) (“the Secretary cannot use insufficient evidence as an excuse for failing to comply with the statutory requirement.”)

these activities over time. The effects should be analyzed with respect to their potential population consequences at the species level, stock level, and at the local population level. See Anderson v. Evans, 350 F.3d 815 (9th Cir. 2003) as amended by 371 F.3d 475 (9th Cir. 2004) (“Even if the eastern Pacific gray whales overall or the smaller PCFA group of whales are not significantly impacted by the Makah Tribe’s whaling, the summer whale population in the local Washington area may be significantly affected. Such local effects are a basis for a finding that there will be a significant impact from the Tribe’s hunts.”).

With regard to cumulative effects, FWS’s proposed IHA is largely silent, even though the three seismic surveys are among at least five such surveys occurring this summer in the U.S portions of the Chukchi and Beaufort seas. See e.g. 71 Fed. Reg. 9782 (Proposed IHA for on-ice seismic surveys in Harrison Bay); 71 Fed. Reg. 11681 (Proposed scientific seismic survey by National Science Foundation). The applicants have acknowledged that the 2006 seismic surveys are just the first year of multi-year exploration programs, yet no analysis of the effects of multi-year surveys is attempted. No analysis of seismic surveys in the Russian or Canadian portions of the Chukchi and Beaufort seas is mentioned either. In addition to the seismic surveys, numerous other activities affecting these same marine mammal populations are proposed or underway but apparently have not been factored into NMFS’s negligible impact finding. See e.g. 71 Fed. Reg. 11314 (NMFS 5-year harassment regulation for activities related to Northstar); 71 Fed. Reg. 14446 (FWS 5-year regulations for oil and gas activities in the Beaufort Sea).¹⁵ Similarly, significant increases in onshore oil and gas development with attendant direct impacts and indirect impacts on marine mammals such as through increased ship traffic are also occurring and projected to occur at greater rates than in the past. See e.g. 70 Fed. Reg. 47809 (NMFS IHA for barge traffic to NPR-A); 70 Fed. Reg. 47851 (Notice regarding new oil and gas development in the NPR-A). Further cumulative effects impacting these species are outlined in our NEPA comment letter on the MMS PEA. See Exhibit A at 13-14 and 32-33. In 2003, the National Research Council looked at cumulative effects of oil and gas activities on Alaska’s North Slope and highlighted numerous activities affecting marine mammals.¹⁶ The cumulative impacts of all these activities must be factored into any negligible impact determination. FWS has not done so and therefore the proposed IHA cannot lawfully be issued.

Another factor causing FWS’s “negligible impact” findings to be flawed is the fact that the Chukchi Sea and adjacent areas are undergoing rapid change as a result of global warming. As described in the “small numbers” discussion above, polar bear and walrus are already being significantly impacted by global warming, with actual mortality of adult polar bears and young walrus documented. Projected impacts are likely to be even more severe. The changes to the Arctic are also

¹⁵ The fact that FWS is simultaneously considering issuing IHAs for walrus and polar bear in the Chukchi Sea while at the same time proposing regulations allowing take of these species in the Beaufort Sea without addressing the cumulative impacts of these connected actions is absurd. This is particularly so when the applicants for the Chukchi IHAs will themselves be engaging in seismic surveys in the Beaufort Sea as part on the very same survey cruise. Because the proposed regulations and proposed IHAs are so interrelated and cumulative, we formally request that the complete administrative record for the proposed regulations be included in the administrative record for the proposed IHAs and visa versa.

¹⁶ National Research Council 2003, *Cumulative Environmental Effects of Oil and Gas Activities on Alaska’s North Slope*. National Academy Press, Washington, DC.

affecting prey species for the polar bear. The Arctic Climate Impact Assessment¹⁷ concluded that ringed, spotted, and bearded seals would all be severely negatively impacted by global warming this century. The ACIA stated that ringed seals, the primary prey of polar bears, are particularly vulnerable: “Ringed seals are likely to be the most highly affected species of seal because all aspects of their lives are tied to sea ice”. ACIA at 59. As described in the IHA applications to NMFS, tens of thousands of ringed seals are proposed to be taken as a result of the seismic surveys. See, e.g. 71 Fed. Reg. 26055, 26062 (Shell IHA showing 24076 ringed seals potentially taken in the Chukchi Sea). In 2003, the NRC noted that oil and gas activities combined with global warming presented a serious cumulative impact to both the ringed seal and the polar bear: “Climate warming at predicted rates in the Beaufort Sea region is likely to have serious consequences for ringed seals and polar bears, and those effects will accumulate with the effects of oil and gas activities in the region.” FWS’s failure to address global warming as a cumulative effect renders its negligible impact findings invalid.¹⁸

In sum, the proposed IHAs fail to comply with the MMPA’s requirements that take of marine mammals be limited to “small numbers” and have a “negligible impact.” Because of this, the take authorizations cannot be lawfully issued.

C. Impact on Subsistence Uses

The MMPA also requires that any incidental take authorized will not have “an unmitigatable adverse impact on the availability of such species or stock for taking for subsistence uses” by Alaska Natives. 16 U.S.C. § 1371(a)(5)(A)(i). The proposed IHAs purport to make such findings. For the reasons discussed above regarding the “small numbers” and “negligible impact” findings, FWS’s conclusions on this point are also arbitrary and capricious. Additionally, we are aware that the Native Village of Point Hope has passed a resolution opposing the proposed seismic surveys due to impacts on the subsistence. In light of the positions of this community, we do not see how FWS can lawfully make the findings required under the MMPA for approving the proposed IHAs.

D. Monitoring and Measures to Ensure Least Practicable Impact

The MMPA authorizes FWS to issue a small take authorization only if it can first find that it has required adequate monitoring of such taking and all methods and means of ensuring the least practicable impact have been adopted. 16 U.S.C. § 1371(a)(5)(D). The proposed IHAs largely ignore this statutory requirement. The specific deficiencies of the mitigation measures as outlined in the MMS PEA are described in detail in our NEPA comments and are incorporated by reference here. See Exhibit A at 19-26. The problems with the mitigation measures as explained for NEPA purposes are even more compelling with regard to the substantive standards of the MMPA. Because the MMPA explicitly requires that “means effecting the least practicable impact” on a species, stock or habitat be

¹⁷ ACIA 2004. *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*. Cambridge University Press.

¹⁸ Additionally, the utter failure of FWS to analyze the impacts of the seismic surveys on ringed seals and other polar bear prey renders both the negligible impact finding and the NEPA analysis invalid. Even if FWS lacks jurisdiction to issue take authorization for ringed seals, any impact on ringed seals necessarily impacts polar bears and must be considered by FWS as part of its findings for polar bear.

included, an IHA must explain why measures that would reduce the impact on a species were not chosen (i.e. why they were not “practicable”). 16 U.S.C. § 1371(a)(5)(D)(ii)(I). None of the proposed IHAs, the applications from Shell, CPAI, and GXT, FWS’s EA, nor the MMS PEA attempt to do this.

II. The 1973 Agreement on the Conservation of Polar Bears

Shortly after the enactment of the MMPA, the United States along with the other nations with jurisdiction over polar bear populations adopted the 1973 Agreement on the Conservation of Polar Bears. Like the MMPA, the Polar Bear Agreement emphasizes habitat protection. We believe that the authorization of disruptive oil and gas industrial activities such as seismic surveys in polar bear habitat violates the mandate of the Polar Bear Agreement to protect essential polar bear habitats. At a minimum, FWS must explain how the incidental take authorizations will protect such habitats. The proposed IHAs entirely fail to do so and are therefore arbitrary and capricious.

III. National Environmental Policy Act

The proposed IHAs authorizing take of polar bears and walrus from oil and gas seismic surveys in the Chukchi Sea are being promulgated in violation of the spirit and letter of the National Environmental Policy Act (“NEPA”) and its implementing regulations. First off, FWS has failed to provide adequate notice of the proposed action as required by NEPA. We are unaware of FWS contacting any environmental organization about the proposed IHA or distributing the Environmental Assessment (“EA”) to any interested party. Neither the EA or the proposed rule are posted on FWS’s Alaska Region website. There simply has been inadequate opportunity for public involvement in this significant undertaking.¹⁹ To comply with NEPA, FWS must reopen the comment period, make the relevant documents available on its website, and contact organizations and individuals with a history of involvement or expressed interest in management of polar bears and walrus.

In addition to the inadequate public notice, FWS’s most significant violation of NEPA is its failure to prepare a full Environmental Impact Statement (“EIS”) for proposed authorizations. Under NEPA:

an EIS must be prepared if “substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor.” To trigger this requirement “a plaintiff need not show that significant effects will in fact occur,” raising “substantial questions whether a project may have a significant effect is sufficient.”

Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1149-50 (9th Cir. 1998) (citations omitted) (emphasis in original).

Additionally, under the CEQ regulations, the effects of the take authorization are significant. The CEQ regulations list ten factors that must be considered in determining the significance of an

¹⁹ Additionally, we requested a copy of the EA according to the instructions in the Federal Register notice on May 8, 2006, the day the notice was published. We were not provided a copy of the EA until May 24, 2006, halfway through the short comment period.

action's environmental effects. 40 C.F.R. § 1508.27. Several of these factors are present here. Among these are that the action is "highly controversial," and it involves possible effects that are "highly uncertain or involve unique or unknown risks." Either of these factors, standing alone, is sufficient to require preparation of an EIS. Ocean Advocates v. United States Army Corps of Engineers, 402 F.3d 846, 865 (9th Cir. 2005). In this instance, each of these factors require preparation of an EIS.

As discussed in the MMPA section above, FWS must also consider the cumulative effects of all the past, present and likely future activities and events affecting the polar bear and walrus in its NEPA analysis. Among these are global warming, pollutants building up in the Arctic and in the bodies of these species, activities in the Canadian and Russian portions of the species ranges, and all other relevant factors. FWS has utterly failed to do so here. Additionally, as discussed in the mitigation section above, FWS must analyze all reasonable alternatives to the proposed action. Issuing blanket take authorization for all seismic surveys without considering alternatives such as seasonal prohibitions of disruptive activities in important areas violates this requirement of NEPA as well.

FWS apparently is not relying upon the Programmatic Environmental Assessment for Arctic Outer Continental Slope Seismic Surveys (OCS EIS/EA MMS 2006-019) ("PEA") prepared by the Minerals Management Service ("MMS") for NEPA purposes. See 71 Fed. Reg. at 26780 (describing separate Environmental Assessment ("EA") prepared by FWS). The FWS EA itself refers to the MMS PEA for the description of the physical environment but otherwise makes no mention of it. FWS EA at 18. On May 10, 2006 we submitted comments to MMS on the Draft PEA pointing out the serious legal deficiencies of that document. A copy of those comments are appended to this letter as Exhibit A and incorporated by reference herein.²⁰

We believe that FWS cannot lawfully rely on the PEA for the reasons described in that letter. Moreover, because FWS has not indicated its intent to rely on the PEA for NEPA purposes, if FWS changes position and decides to rely on the PEA, FWS must publish a notice in the Federal Register indicating its intent and reopen the comment period for a minimum of 30 additional days. To do otherwise would run afoul of clear Ninth Circuit caselaw requiring EAs to be made available for public comment. See, e.g. Anderson v. Evans, 314 F.3d 1006, 1016 (9th Cir. 2002) ("the public must be given an opportunity to comment on draft EAs and EISs").²¹

²⁰ Subsequent to our May 10, 2006 comment letter on the PEA, additional information on at least one of the CEQ significance factors requiring the preparation of an EIS has come to light. The level of controversy has demonstrably increased. See 40 C.F.R. § 1508.27(b)(4) ("The degree to which the effects on the quality of the human environment are likely to be highly controversial."). In May, 2006 the Native Village of Kaktovik passed a resolution opposing Shell's seismic survey plans and the Native Village of Point Hope also officially expressed its opposition to this summer's various seismic surveys.

²¹ In the Federal Register notice FWS states that it prepared an EA and concluded that no significant effects would occur and therefore no Environmental Impact Statement would be necessary. 71 Fed. Reg. at 26780. The notice makes no reference to a draft EA and described a decision already made and apparently the existence of a final EA. The EA provided by FWS upon request, however, is stamped "Draft." If FWS has in fact already concluded the NEPA process prior to circulating the "draft" EA, its violations of NEPA are further compounded.

FWS cannot rationally adopt the its EA (or the MMS PEA) and make a Finding of No Significant Impact. FWS must instead prepare a full EIS analyzing the effects of the proposed seismic surveys in the context of the cumulative effects of all other natural and anthropogenic impacts on the marine mammals, habitats and communities of the Chukchi Sea.

In at least three cases the Ninth Circuit has overturned decisions not to prepare an EIS for a project that impacted marine mammals, including in cases such as this where one such impact is the disruptive effects of sound on the species. See National Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 727 (9th Cir. 2001) (“The acoustic environment appears to be very important to humpback whales.”); see also Jones v. Gordon, 792 F.2d 821 (9th Cir. 1986)(overturning on NEPA grounds MMPA take authorization of killer whales). Most recently, in Anderson v. Evans, 350 F.3d 815 (9th Cir. 2003) as amended by 371 F.3d 475 (9th Cir. 2004) the Ninth Circuit held that failure to analyze the local impacts on a marine mammal population was sufficient to overturn a decision not to prepare an EIS: “Even if the eastern Pacific gray whales overall or the smaller PCFA group of whales are not significantly impacted by the Makah Tribe’s whaling, the summer whale population in the local Washington area may be significantly affected. Such local effects are a basis for a finding that there will be a significant impact from the Tribe’s hunts. See 40 C.F.R. § 1508.27(a).” All of these cases are applicable to the instant situation. FWS must prepare a full EIS for the proposed take authorizations.

IV. Conclusion

For all of the above reasons, we believe the requests for incidental take authorization for seismic surveys in the Chukchi Sea must be denied. We look forward to FWS’s prompt response to these comments. Also, please immediately provide us via email (bcummings@biologicaldiversity.org) and U.S. mail with FWS’s final NEPA and MMPA documents as soon as they are available. Thank you for your consideration of these comments.

Sincerely,

/s/

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