



Alaska Oil and Gas Association

121 W. Fireweed Lane, Suite 207
Anchorage, Alaska 99503-2035
Phone: (907) 272-1481
www.aoga.org



American Petroleum Institute

1220 L Street, NW
Washington, DC 20005
Phone: (202)682-8000
www.api.org

February 13, 2012

VIA Federal eRulemaking Portal:

<http://www.regulations.gov>

Ms. Kaja Brix
Assistant Regional Administrator
Protected Resources Division – Alaska Region
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802
Attn: Ellen Sebastian

Re: Comments of the American Petroleum Institute and the Alaska Oil and Gas Association on Status Review for the Ribbon Seal, NOAA-NMFS-2011-0248

Dear Ms. Brix:

This letter provides the public comments of the American Petroleum Institute (“API”) and the Alaska Oil and Gas Association (“AOGA”) (collectively, the “Associations”) in response to the National Marine Fisheries Service’s (“NMFS”) request for information and public comment concerning the pending status review to determine whether the ribbon seal should be listed as a threatened or endangered species under the Endangered Species Act (“ESA”).¹ See 76 Fed. Reg. 77,467 (Dec. 13, 2011). We appreciate NMFS’s consideration of the comments set forth below.

¹ API and AOGA have a wide variety of industry members who have differing views on whether climate change is presently occurring and whether it is anthropogenic, but, for purposes of these comments, we do not raise those issues.

I. INTRODUCTION

A. The Associations

API is a national trade association representing over 450 member companies involved in all aspects of the oil and natural gas industry. API's members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry. API and its members are dedicated to meeting environmental requirements, while economically developing and supplying energy resources for consumers.

AOGA is a private non-profit trade association located in Anchorage, Alaska. AOGA's sixteen member companies account for the majority of oil and gas exploration, development, production, transportation, refining, and marketing activities in Alaska. AOGA's members are the principal industry stakeholders that operate in Arctic Alaskan waters and the adjacent waters of the U.S. Outer Continental Shelf ("OCS"). AOGA and its members are longstanding supporters of wildlife conservation, management, and research in the Arctic.

B. Summary of Comments

As set forth in detail in Section II of this letter, an ESA listing of the ribbon seal species (*Histriophoca fasciata*) as threatened or endangered is not warranted. Our comments are summarized as follows:

1. The ESA does not authorize listings of healthy species

The Center for Biological Diversity's ("CBD") 2007 petition to list the ribbon seal under the ESA was an attempt to protect a species that by all accounts is healthy and therefore not in need of recovery. This species is already effectively protected by the Marine Mammal Protection Act ("MMPA"), is not currently known to have declining or depressed populations, and occupies the whole of its historical range. Accordingly, CBD's petition sought an entirely prophylactic listing (i.e., a listing in advance of the occurrence of harm) premised primarily upon a generalized risk factor (i.e., global climate change). In the absence of depressed populations and documented declines attributable to climate change, it is not possible to establish a rational, let alone scientifically sound, cause and effect analysis linking observable data and reliably predictable facts to future climate change, Arctic sea ice recession, or species-threatening declines in seal abundance and distribution. Indeed, in 2008, NMFS made precisely this finding in declining to list the ribbon seal – a determination that NMFS vigorously defended in court until it obtained a favorable decision at the end of 2010. There is no significant new or additional scientific or commercial information that necessitates a change from the decision that the agency already made. If for some reason NMFS now intends to list healthy species under the ESA based on speculation about the resulting biological consequences of multi-decadal projections for a single generalized ecological variable such as "climate," virtually every species may be considered threatened.

2. Oil and gas leasing, exploration, development, and production activities are not a past, present, or reasonably foreseeable future threat to ribbon seals or their habitat

Oil and gas exploration, development, and production in Alaska are not a threat to the ribbon seal or its habitat. The effects of oil and gas activities in the Alaskan Arctic are relatively well-studied. The documented impacts to seals from such activities are limited to temporary, localized effects that have no long-term effects on individuals and no detectable or expected effects on seal populations. Moreover, oil and gas activities in the Alaskan Arctic minimally overlap with the distribution of ribbon seals, which further reduces the very limited impacts that oil and gas activities have on seals generally. NMFS's 2008 decision not to list ribbon seals under the ESA made precisely these findings and there is no new information regarding ribbon seals or oil and gas activities in the Arctic that would support a different conclusion now.

3. In the event of a proposed listing, NMFS should propose a special rule under Section 4(d) of the ESA and should not propose a critical habitat designation

In the event that NMFS elects to propose a listing of the ribbon seal, we urge that NMFS also consider and propose an associated regulation pursuant to § 4(d) of the ESA. The basis for, and outline of, a possible 4(d) rule is addressed in Section III of this letter. Section III also sets forth the reasons that critical habitat should not be designated if the agency proposes a listing.

II. DETAILED COMMENTS

A. The ESA Does Not Authorize Listing of Currently Healthy Species

1. CBD's proposed listing of the ribbon seal poses a political question best addressed by Congress, and is not scientifically supported

The present status review will cause NMFS to make a decision to either propose a listing or issue a decision that a listing is not warranted. Accordingly, it is essential that NMFS consider the statutory and policy context and implications of a listing decision.

The purpose of the proposed listing is, as with the listing of the polar bear as a threatened species and the proposed listings of Pacific walrus, ringed seals, and bearded seals, to use the provisions of the ESA to regulate greenhouse gas ("GHG") emissions and global climate change. However, as acknowledged by the U.S. Fish and Wildlife Service ("FWS") in listing the polar bear, the ESA was not intended by Congress to be used in this manner, nor do the Services have the expertise, authority, or resources to establish a comprehensive carbon emission regulatory program through administration of the ESA § 7 consultation and § 9 take provisions.

The ESA was enacted by Congress as an action-forcing conservation statute designed to ensure meaningful protections for species that, based upon the best available science, are either currently in great peril (an "endangered" species) or foreseeably

threatened with great peril (a “threatened” species). Nothing in the ESA compels NMFS to list healthy species based on politically-motivated petitions by advocacy groups and speculative century-long projections based on the available information.

Under Section 4, the default position for all species is that they are not protected under the ESA. A species receives the protections of the ESA only when it is added to the list of threatened species after an affirmative determination that it is ‘likely to become endangered within the foreseeable future.’ Although an agency must still use the best available science to make that determination, *Conner [v. Burford]* cannot be read to require an agency to ‘give the benefit of the doubt to the species’ under Section 4 if the data is uncertain or inconclusive. Such a reading would require listing a species as threatened if there is any possibility of it becoming endangered in the foreseeable future. This would result in all or nearly all species being listed as threatened.

Trout Unlimited v. Lohn, 645 F. Supp. 2d 929, 947, (D. Or. 2007); see *Center for Biological Diversity v. Lubchenco*, No. C-09-04087, 2010 U.S. Dist. LEXIS 135030, *24-25 (N.D. Cal. Dec. 21, 2010) (“benefit of doubt” concept does not apply in Section 4 listing context); see also *Oregon National Resources Council v. Daley*, 6 F. Supp. 2d 1139, 1152 (D. Or. 1998) (ESA requires a determination as to the likelihood – rather than merely the prospect – that a species will or will not become endangered in the foreseeable future); *Federation of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, 1165 (N.D. Cal. 2000) (“The ESA cannot be administered on the basis of speculation or surmise.”).

Moreover, a listing of the ribbon seal would establish a precedent that renders the ESA listing process unworkable. In its petition to list the ribbon seal, CBD asks NMFS to list a currently healthy species by forecasting a poorly understood global phenomena (global climate change) a minimum of 100 years into the future. This approach requires the agency to rely upon controversial modeling projections of complex phenomena to forecast a future that is well beyond our reasonable ability to predict and, in addition, to imagine what the as-yet unapparent biological consequences of these forecasts will be for a seal species that is currently healthy.² This is an exercise in speculation, not an analysis based on scientific evidence. If the Services are going to list species under the ESA

² The U.S. Department of the Interior recently completed a comprehensive analysis of climate change modeling uncertainty and the reliability of future forecasts in connection with its polar bear listing decision. See 73 Fed. Reg. 28,212, 28,227-28, 28,243-45 (May 15, 2008). The FWS concluded that there is a scientific consensus that predictions of climate change on at least a broad scale extending out to 2050 are relatively insensitive to emissions assumptions, but that longer-term projections and forecasts at the regional or local scale are considerably less certain. *Id.* at 28,253-54. Climate predictions extending out 100 years and specific to the Arctic far exceed the existing credibility of climate models and forecasts.

based upon extrapolation of observed trends in one ecological parameter extending out for a hundred years or more, and speculation about the resulting biological consequences, then virtually every species can be considered endangered or threatened.

2. The ribbon seal population is currently healthy

The best available scientific information regarding the ribbon seal's population status does not support a finding that the species should be listed under the ESA. The ribbon seal is not listed as depleted or strategic by NMFS under the MMPA, indicating the absence of scientific data or consensus that the ribbon seal population is currently threatened or in decline. As NMFS explained in its recent status review:

With a population likely comprising at least 200,000 individuals, ribbon seals are not currently at risk from the demographic issues of low abundance commonly associated with ESA listing decisions, such as demographic stochasticity, inbreeding, loss of genetic diversity, and compensatory effects. The current population trend is unknown, but a recent estimate of 49,000 ribbon seals in the eastern and central Bering Sea is consistent enough with historical estimates to suggest that no major or catastrophic change has occurred in recent decades. The species is thought to occupy its entire historically-observed range; there are no portions of the range in which ribbon seals have been reported to have disappeared or become extinct.

See NOAA Technical Memorandum NMFS-AFSC-191; *see also* Allen and Angliss (2009) (most recent stock assessment report prepared by NMFS for the ribbon seal).³ There is no additional or new information on ribbon seal abundance that calls any of these conclusions into doubt. Finally, the best available information and data supports the conclusion that the ribbon seal species continues to occupy the entirety of its historical range. *Id.*

³ NMFS annually prepares, proposes, accepts public comment on and publishes final stock assessment reports ("SARs") of certain marine mammal stocks. *See* 16 U.S.C. § 1386. These SARs must, by law, be based upon "the best scientific information available." *Id.* § 1386(a). While we recognize that the findings in NMFS's SARs represent current status assessments and not forecasts, the existing data documented in NMFS's final 2009 ribbon seal, and in the draft 2011 ribbon seal SAR, do not demonstrate a current detectable adverse impact on the ribbon seal species from climate change nor do they suggest a negative trend in abundance for the species.

3. There have been no observed climate change-related effects on ribbon seals

There are no scientific data demonstrating an observed adverse impact on the ribbon seal species resulting from sea ice recession or other environmental changes attributed to global climate change. While there are data from isolated past warm years that form the basis for theoretical notions of potential biological consequences to some Arctic species from global climate change, these data do not demonstrate an existing adverse impact. This data gap is a critical distinction between CBD's proposal to list the ribbon seal and the recent polar bear listing in which the FWS relied upon data that it concluded demonstrated a present adverse impact to polar bear populations in the southern most reaches of its habitat *attributable to sea ice recession linked to climate change*. See 73 Fed. Reg. at 28,275 ("Polar bears in some regions already are demonstrating reduced physical condition, reduced reproductive success, and increased mortality"), 28,276 ("In the southerly populations... polar bears already experience stress from seasonal fasting due to early sea ice retreat"). Similar findings for the ribbon seal do not exist.⁴

4. The Alaskan Arctic and Sub-Arctic ecosystems are healthy

The health of the Arctic and Sub-Arctic ecosystems in and adjacent to Alaska argues against the listing of any ice seals under the ESA, including ribbon seals. A key measure of the health of the ecosystems is the condition of the populations that feed on zooplankton which support the prey populations of ice seals. Reduced prey populations would be reflected by declining marine mammal populations caused by reduced reproduction rates.

A key species reflecting the health of the ecosystems is the bowhead whale, which feeds on zooplankton during summer to fall. The stock (Bering-Chukchi-Beaufort Sea or "BCB") has increased from several thousand in the 1970s to over 10,545 whales (Brandon and Wade 2004; George et al. 2004a,b; Zeh and Punt 2004; and Angliss and Outlaw 2008). The actual population size is likely much higher, since the most recent estimate was derived from data collected in 2001. The current population could be over 12,000 bowheads given an annual growth rate (3.4 - 3.5% or at least 350 new whales per year). Sheldon et al. (2001) suggested that the healthy condition of the stock should warrant delisting it under the ESA, since the population is within the range (10,400 to 23,000 whales) of its pre-commercial exploitation size. George et al. (2004a) concluded that the recovery of the BCB Seas bowhead whale population is likely attributable to relatively pristine habitat combined with low anthropogenic mortality and well-managed

⁴ Moreover, sea ice in the Arctic has been in decline for a number of years, yet, despite those declines, no declines in fitness or abundance, or any other detrimental effects, have been observed with respect to ribbon seals (which is primarily a sub-Arctic species). This calls into serious question any assumption that future declines in sea ice will inevitably lead to detrimental effects to ribbon seal populations.

subsistence harvest.⁵ The health of the ecosystem reflected by continued growth of the bowhead whale population likely supports a similarly healthy ice seal population. A deteriorating or stressed ecosystem warrants consideration of listing species under the ESA, but not healthy ecosystems such as the Alaskan Arctic and Sub-Arctic.

B. NMFS Recently Determined That Ribbon Seals Should Not Be Listed as Threatened or Endangered under the ESA

As recently as December 2008, NMFS made a decision, based on all of the best and most current scientific information, that the ribbon seal should not be listed under the ESA. *See* 73 Fed. Reg. 79,822 (Dec. 30, 2008). In that decision, NMFS explained:

After a formal review of the best available scientific and commercial information, we find that listing of the ribbon seal is not warranted at this time. Although the ribbon seal population abundance is likely to decline gradually for the foreseeable future, primarily from slight but chronic impacts on reproduction and survival caused by reduced frequency of years with sea ice of suitable extent, quality, and duration of persistence, it is not in danger of extinction or likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

*Id.*⁶ CBD challenged this decision in the federal district court for the Northern District of California and NMFS vigorously defended its decision throughout the case to its completion at the end of 2010. The Court upheld NMFS's findings and rejected the claims of CBD. *See Ctr. for Biological Diversity v. Lubchenco*, 758 F. Supp. 2d 945 (N.D. Cal. 2010).

NMFS's defense of the "foreseeable future" used in the previous ribbon seal decision, and the Court's approval of the agency's foreseeable future findings, are

⁵ NMFS's recently released Draft Environmental Impact Statement for "Effects of Oil and Gas Activities in the Arctic Ocean" (Dec. 2011) states that "[t]he [bowhead] population may be approaching carrying capacity despite showing no sign of a slowing in the population growth rate (Brandon and Wade 2006)" and that "[r]esults based on images from 2003 through 2005 provided an estimated population abundance in 2004 of 12,631 whales, excluding calves (Koski et al. 2010)." (DEIS at 3-89).

⁶ Like ringed and bearded seals, ribbon seals are abundant and occupy their entire historical range. 73 Fed. Reg. at 79,824 ("With a population likely comprising at least 200,000 individuals, ribbon seals are not currently at risk from the demographic issues of low abundance commonly associated with ESA listing decisions, such as demographic stochasticity, inbreeding, loss of genetic diversity, and compensatory effects.. The species is thought to occupy its entire historically observed range. There are no portions of their range in which ribbon seals have been reported to have disappeared, nor are they known to be demographically at risk in any portion of their range.").

particularly relevant here since NMFS has recently used a different (longer) foreseeable future as a basis to propose listings of ringed and bearded seals. *See* 75 Fed. Reg. 77,476, 77,482 (December 10, 2010) (ringed seals); 75 Fed. Reg. 77,496, 77,503 (December 10, 2010) (bearded seals). As set forth below, to the extent the agency plans to evaluate the status of the ribbon seal under a foreseeable future that is longer than that previously analyzed by NMFS, it has no scientifically sound basis to do so.

The primary conservation threat identified for all Arctic species that have been petitioned for ESA listing is declines in sea ice habitat as a result of a warming climate. The United States, acting through both FWS and NMFS, has recently examined in detail the best available scientific data and information regarding climate change projections. FWS and NMFS (aside from its recent proposed listing rules for ringed and bearded seals) have consistently concluded that the foreseeable future for purposes of climate change threats is *mid-century*, and that longer-term projections and forecasts are too uncertain to be relied upon for purposes of ESA listings. Although determination of the foreseeable future may differ among species, subject to different threats based upon different data, there is no rational or scientific basis to use a different foreseeable future where, as here, the species are dependent upon sea ice habitat, subject to the same threat (sea ice declines due to climate change), using the same data that NMFS has used in the past. Rather, climate predictions extending out 100 years and specific to the Arctic or Sub-Arctic far exceed the reliability of climate models and forecasts.

In its 2008 decision not to list the ribbon seal under the ESA, NMFS determined that mid-century was the foreseeable future because:

Past and current emissions of greenhouse gases have already largely set the course for changes in the atmosphere and climate until that time, and because of enormous uncertainty about future social and political decisions on emissions that will dominate projection of conditions farther into the future. Beyond the year 2050, projections of climate scenarios are too heavily dependent on socio economic assumptions and are therefore too divergent for reliable use in assessing threats to ribbon seals.

73 Fed. Reg. at 79,823. In so doing, NMFS emphasized that for species with overlapping generations and facing extrinsic (habitat destruction) threats, the generation length of the species “may be essentially irrelevant,” and that “the best available scientific information allows reliable assessment of global warming and the related threats to ribbon seals through 2050.” *Id.*

NMFS’s determination regarding the mid-century foreseeable future for purposes of analyzing sea ice recession due to climate change was sustained by the *Lubchenco* court:

Defendants are correct that NMFS did not disregard IPCC climate modeling, but instead cited it in the Status Review.

In the twelve-month finding, NMFS states that its reason for choosing 2050 as the foreseeable future is that climate models after that time are too heavily dependant [sic] on socio-economic assumptions and are therefore unreliable for use in assessing threats to the ribbon seal. AR 13 at 79823. Further, the record shows that NMFS actually did consider a significant amount of climate science that included projections to 2100 or later. See, e.g., AR 11 at 63 (discussing sea ice coverage during decade from 2075-2084); AR 276 at [sic] [(]climate projections through 2200); AR 316 [(]ocean acidification projections through 2100); AR 319 at 4 (sea ice projections through 2100); 352 at 4 (climate projections through 2084); AR 409 at 12 (projections to 2100).

Plaintiffs have not shown that NMFS's reasons for designating 2050 as the foreseeable future were arbitrary and capricious. Specifically, the IPCC addressed warming after 2050, but since there was little reliability, NMFS did not err in determining that models after 2050 were too variable to be part of the foreseeable future.

Id. at *54-55. Moreover, in its defense of the mid-century foreseeable future, NMFS argued as recently as July 2010, among other things, that:

As part of the status review NMFS determined that the 'foreseeable future' for purposes of its analysis was the year 2050. This determination was based on the fact that climate projections, and thus NMFS's sea-ice modeling are all in broad agreement through 2050, and thus can be relied upon in making projections. Past 2050, however, the quality of such predictions rapidly degrades, and so NMFS determined that it could not reliably predict the seal's status past that date....

[I]t is worth emphasizing that the current consensus is that the ribbon seal population consists of at least 200,000 animals and is healthy. The best available data, though changing rapidly and reflecting uncertainty, indicates that the population will not be threatened with extinction by 2050 despite what NMFS has characterized as a gradual decline from slight but chronic impacts associated with climate change. NMFS will continue to monitor the species and if new information comes to light or the [sic] if the population decline indicates that the ribbon seal will become threatened [or] endangered, NMFS will revisit its conclusions. Congress has not authorized NMFS under the

ESA to take action any sooner, nor has it authorized NMFS to make assumptions that are unsupported by the available data.

Lubchenco, 2010 U.S. Dist. LEXIS 135030, Dkt. 67, pp. 14-19 (federal defendants' reply brief, dated July 23, 2010).

As further support for its mid-century foreseeable future analysis, NMFS emphasized that “[i]t is important to note that our approach to establishing the appropriate time frame for the foreseeable future, as noted above, was the same as the approach used by FWS in its recent decision listing the polar bear as threatened under the ESA (73 FR 28212).” 73 Fed. Reg. at 79,823.⁷ Indeed, the U.S. Department of the Interior completed a comprehensive analysis of climate change modeling uncertainty and the reliability of future forecasts in connection with its polar bear listing decision. *See* 73 Fed. Reg. at 28,227-28, 28,243-45. The FWS concluded that there is a scientific consensus that predictions of climate change on at least a broad scale extending out to 2050 are relatively insensitive to emissions assumptions, but that longer-term projections and forecasts at the regional or local scale are not sufficiently reliable for projections of threat to a species. *Id.* at 28,253-54. Specifically, the FWS explained:

On the basis of our analysis, reinforced by the conclusions of the IPCC AR4, we have determined that climate changes projected within the next 40-50 years are more reliable than projections for the second half of the 21st century....

[W]e considered the timeframe over which the best available scientific data allow us to reliably assess the effect of threats on the polar bear, and determined that there is substantial scientific reliability associated with climate model projections of sea ice changes over the next 40-50 years. Confidence limits are much closer (i.e., more certain) for projections of the next 40-50 years and all projections agree that sea ice will continue to decrease. In comparison, periods beyond 50 years exhibit wider confidence limits, although all trends continue to express warming and loss of sea ice (IPCC 2007, p. 749; Overland and Wang 2007a, pp. 1-7; Stroeve et al. 2007, pp. 1-5).

73 Fed. Reg. at 28,253-54. The FWS's decision was also recently upheld by a federal district court. *See In re Polar Bear Endangered Species Act Listing and 4(d) Rule*

⁷ *See Lubchenco*, 2010 U.S. Dist. LEXIS 135030 at *60-61 (accepting NMFS's contention that consistency with polar bear foreseeable future supports mid-century foreseeable future for the ribbon seal).

Litigation, 794 F. Supp. 2d 65, 68 (D.D.C. 2011).⁸

In sum, the Associations do not understand NMFS's initiation of a status review for the ribbon seal a mere twelve months after the agency finished its successful defense of a determination that the ribbon seal does not qualify for listing under the ESA.⁹ That determination was thoroughly supported by the record and upheld by a federal court in its entirety. As set forth below, there is no significant new information that suggests a different conclusion than the one already reached by the agency.

C. NMFS Has Not Identified Any Supportable Basis for Initiating a Status Review for the Ribbon Seal

This status review appears to be driven by NMFS's desire to settle the appeal of its lawsuit with CBD rather than the production of significant new scientific information. *See* 76 Fed. Reg. at 77,468 (describing settlement agreement entered into with CBD). NMFS offers two rationales for its decision to settle the CBD lawsuit and initiate this status review. First, NMFS suggests that new information regarding ribbon seal movements and diving has become available. *Id.* Second, NMFS suggests that the "modified threat-specific approach to analyzing the foreseeable future," which was used to support the proposed listings of ringed and bearded seals, is now available to the agency. *Id.* Neither of these rationales provides any support for a change in the decision that the agency already, and very recently, made and defended.¹⁰

1. New information on ribbon seal movements and diving

The study referred to in NMFS's federal register notice observed the movements and diving behaviors of 40 ribbon seals that have been tagged since 2007.¹¹ The results

⁸ In another relatively recent ESA listing analysis of a species proposed for listing on the basis of climate change, the FWS again reaffirmed that a mid-century foreseeable future is appropriate because of the general scientific consensus that climate change projects past mid-century are not reliable. *See also* 75 Fed. Reg. 6438, 6456-57, 6462-63 (Feb. 9, 2010) (listing of American Pika based upon climate change not warranted).

⁹ Moreover, in its December 2011 DEIS for "Effects of Oil and Gas Activities in the Arctic Ocean" NMFS does not report any significant new ribbon seal information that was not already considered in its 2008 decision not to list the species under the ESA (*see* pages 3-111 – 3-113 of DEIS).

¹⁰ If NMFS has any other bases for initiating this status review, they were not identified in the Federal Register notice or otherwise disclosed for consideration by the public.

¹¹ To our knowledge, this study has not been published and, to date, has only been summarized in a powerpoint presentation titled "Movements and Dive Behavior of Ribbon and Spotted Seals: Evidence for Resource Partitioning in the Bering Sea" (Boveng, London, and Cameron). If the study has been documented formally, any such document has not been made available by NMFS to the public during the comment period for this status review.

of this study showed that, in the winter and spring, when ribbon seals need sea ice to support breeding and molting, the tagged ribbon seals apparently exhibited a preference for foraging for prey in deeper waters near the shelf slope. NMFS's short powerpoint presentation summarizing this study suggests that this "apparent preference may pose a special challenge for ribbon seals if they are forced to respond to diminished ice extents by shifting their breeding range north, farther from the shelf break." This study, which has yet to be published in a peer-reviewed journal, does not present any information that remotely warrants a change in NMFS's 2008 decision not to list the ribbon seal.

First, the results of the recent study are speculative – i.e., the authors apparently speculate that *if* ribbon seals rely upon the deeper waters of the shelf break for foraging, then they *might* be subjected to "special challenges" if they have to shift their breeding range north. What the study does not consider, among other things, is that (1) ribbon seals will almost certainly adapt their foraging and breeding behaviors if sea ice recedes to the north; (2) ample food supply may (and likely is) present in northern waters; (3) the speculated effect, if realized at all, may only affect some small fraction of the ribbon seal population; and (4) the significance and magnitude of the speculated effect is entirely unknown – with respect to individual seals and to the ribbon seal species as a whole. ESA decisions are not to be made on the basis of speculation or surmise.

Second, NMFS, as recently as 2008, found that, as to ribbon seals, fluctuations in sea ice coverage are projected to be relatively insignificant:

Despite the recent dramatic reductions in Arctic Ocean ice extent during summer, the sea ice in the northern Bering Sea and Sea of Okhotsk is expected to continue forming annually in winter for the foreseeable future. As mentioned above, the sea ice regimes in the Bering Sea and Sea of Okhotsk will continue to be subject to large interannual variations in extent and seasonal duration, as they have been throughout recorded history. While there may be more frequent years in which sea ice coverage is reduced, the late March to early May period in which the peak of ribbon seal reproduction occurs will continue to have substantial ice for the foreseeable future.

73 Fed. Reg. at 79,824-25. Thus, NMFS has already found that one of the key premises for the concern stated in NMFS's recent study – changes in the extent and distribution of sea ice – poses no threat to the ribbon seal in the foreseeable future.

Third, there is nothing groundbreaking about the apparent results of this new study. Indeed, in its December 2008 Status Review of the Ribbon Seal, NMFS cites to a 1976 study (Heptner et al. 1976) as evidence that ribbon seals prefer waters over the continental shelf slope. Accordingly, the ribbon seals' preference for continental shelf waters has been observed since at least 1976 and, most recently, was considered in NMFS's 2008 status review, in which it found that a listing was not warranted.

In sum, the new study cited by NMFS in the Federal Register notice for this status review does not present any significant new information relevant to the ribbon seal's ESA status. Certainly, this single study, which is speculative at best with respect to predicting the future status of ribbon seals, does not overturn the mountain of scientific studies, findings, and conclusions that resulted in NMFS's 2008 decision to not list the ribbon seal.

2. The “modified threat-specific approach”

Ironically, the supposedly new “modified threat-specific approach,” as used in the recent proposed listings of ringed and bearded seals, is based upon the same data used by NMFS in its 2008 ribbon seal decision (and by FWS for the polar bear and American pika). 75 Fed. Reg. at 77,477 (ringed seals); 75 Fed. Reg. at 77,497 (bearded seals). The agency's explanation of this “threat-specific” approach is both conclusory and devoid of any meaning:

NMFS scientists have revised their analytical approach to the foreseeability of threats and responses to those threats, adopting a more threat-specific approach based on the best scientific and commercial data available for each specific threat. For example, because the climate projections in the Intergovernmental Panel on Climate Change's (IPCC's) *Fourth Assessment Report* extend through the end of the century (and we note the IPCC's *Fifth Assessment Report*, due in 2014, will extend even farther into the future), we used those models to assess impacts from climate change through the end of the century.

Id.

The IPCC's *Fourth Assessment Report* is the same report, with the same data and the same projections, used previously by NMFS (ribbon seal) and FWS (polar bear and American pika), for the same purpose (to assess the threat of Arctic sea ice recession linked to warming of climate). Moreover, those decisions were equally focused on specific “threats” to the species due to projected sea ice reductions. Indeed, application of the ESA's five listing factors requires consideration of the specific threats faced by a species. See 16 U.S.C. § 1533(a)(1). Nothing in either of the proposed rules for ringed and bearded seals is meaningfully distinguishable from the threat analyses consistently used by both Services in the previous decisions for ribbon seal, polar bear, and American pika. Accordingly, NMFS's reference to the “threat-specific” approach as a basis for this new status review lacks any substantive meaning and certainly offers nothing new that would warrant a change in the species status.

Furthermore, in the Services' previous decisions, which were peer-reviewed and two of which have since been sustained in federal court, the Services determined that although the IPCC models project impacts out for 100 years, the resulting information

*was not scientifically reliable beyond mid-century.*¹² The issue has never been the existence of climate and sea ice recession projections out to 100 years or more. Rather, as determined by NMFS and by FWS, and as concurred in by numerous independent peer reviewers, and as sustained by two federal courts, the issue is the lack of reliability of these projections beyond *mid-century*.¹³

3. NMFS's decision not to list the spotted seal northern DPSs

Even if NMFS's analyses supporting its proposed listings of ringed and bearded seals did present relevant new information (which they do not), the ribbon seal is much more analogous to the Okhotsk and Bering Sea DPS ("northern DPSs") of the spotted seal, which NMFS recently declined to list under the ESA. *See* 74 Fed. Reg. 53,683 (Oct. 20, 2009). NMFS's findings in both the spotted seal decision and the 2008 decision not to list the ribbon seal bear striking similarities as both species are healthy, inhabit their entire historic range in the sub-Arctic, do not show current signs of stress from climate change or any other threat, and are highly adaptable to changing food and variable ice conditions. 74 Fed. Reg. at 53,687-90; 73 Fed. Reg. at 79,824-25.

In 2008, NMFS estimated the ribbon seal population to be at least 200,000 and found that "[t]here are no portions of their range in which ribbon seals have been reported to have disappeared, nor are they known to be demographically at risk in any portion of their range." 73 Fed. Reg. at 79,824. Similarly, NMFS found that there was "no strong evidence of a declining trend" in the spotted seal northern DPSs, which conservatively number over 100,000 animals. 74 Fed. Reg. at 53,693-94. In addition, NMFS has recognized that sub-Arctic species, such as ribbon and spotted seals, are less susceptible to climate change-related effects than Arctic species. *See* 73 Fed. Reg. at 79,824 ("Large areas of sea ice in the ribbon seal's range will form and persist in most years through May; the occurrence of extensive ice in June will be highly variable, as it has been in the past."); 74 Fed. Reg. at 53,690 ("[t]hus, a decline in ice thickness... is not likely to be a significant concern for the [spotted seal] Okhotsk or Bering DPSs.").

The best available scientific information fails to identify any threat that makes it likely that either ribbon or northern spotted seals will be in danger of extinction in all or a significant part of their range in the foreseeable future. 73 Fed. Reg. at 79,828 (summarizing findings for the ribbon seal); 74 Fed. Reg. 53,683, 53,693-94 (October 20,

¹²More broadly, the models that NMFS largely relies upon in its proposed ringed and bearded seal listings to project climate change effects on seal species in the next 100 years generally focus on a single first-order forcing factor (carbon dioxide) and not other important first-order factors, such as the effects of aerosols on radiative heating, clouds, precipitation, and land cover and use. *See* Pielke (2011). The models employed by NMFS are also limited in their ability to accurately depict regional effects and natural atmospheric oscillations (such as El Nino).

¹³Given the high abundance of the ribbon seal population, the fact that it occupies its entire historical range, and the fact that there have been no observed effects on the species due to climate change, ribbon seals do not qualify as "threatened" even if the 100-year foreseeable future is used.

2009) (summarizing findings for the spotted seal northern DPSs). Among other topics, NMFS has recently analyzed ocean acidification, breeding site fidelity, predation, and interactions with oil and gas industry as potential threats to both the ribbon and spotted seal. 73 Fed. Reg. at 79,826-28; 74 Fed. Reg. at 53,690-91. However, NMFS found that *none* of these potential threats posed any risk of any type of significant impact to either species. 73 Fed. Reg. at 79,828; 74 Fed. Reg. at 53,693-94. In fact, both ribbon and spotted seals have been described by NMFS as opportunistic feeders that are expected to adapt to (if not benefit from) warming climate conditions and will not suffer from ocean acidification. 73 Fed. Reg. at 79,826; 74 Fed. Reg. at 53,690.

D. Oil and Gas Activities Are Not a Threat to Ribbon Seals

One of the purposes of the petition to list ribbon seals as a threatened or endangered species (and the challenge to NMFS's denial of the petition) is the advancement of CBD's ongoing campaign in opposition to offshore oil and gas exploration and development in Alaska. This campaign is not supported by a substantial body of scientific data and information. Industrial activities in the Arctic need to be, and are, conducted in a manner that ensures protection of all marine mammal species, and it is well-demonstrated that oil and gas activities, regulated under the requirements of the MMPA, have no more than a negligible impact on seal species.

1. Oil and gas activities in the Arctic have minimal overlap with ribbon seal distribution

The distribution of ribbon seals "is restricted to the northern North Pacific Ocean and adjoining sub-Arctic and Arctic Seas, where they occur most commonly in the Sea of Okhotsk and Bering Sea." Boveng et al., Status Review of the Ribbon Seal (Dec. 2008). Additionally, NMFS has found that "[r]ibbon seals have been reported in very small numbers within the Chukchi (Patterson et al., 2007; Haley et al. 2010)." *Id.* Ribbon seals are also "not known to breed in the Beaufort Sea." 76 Fed. Reg. 68,974, 69,001 (Nov. 7, 2011); *see also*, 76 Fed. Reg. 46,729, 46,738 (August 3, 2011) (reporting that the ribbon seal "is uncommon or rare" in the Chukchi Sea).

Oil and gas activities in the Arctic occur in vast areas of open ocean where encounters with highly dispersed pelagic species, such as the ribbon seal, are infrequent and minor. For example, for the purpose of incidental take permitting in the Chukchi and Beaufort seas, NMFS has estimated ribbon seal density at 0.0013/mi² (0.0005/km²). *See e.g.*, 76 Fed. Reg. 69,958, 69,994 (Nov. 9, 2011). In short, ribbon seals rarely occur in the waters where Alaskan offshore oil and gas activities take place – i.e., the Chukchi and Beaufort Seas – and when they do occur in those areas, they are dispersed in very low densities. Indeed, ribbon seals are very rarely observed in marine mammal monitoring programs carried out by the oil and gas industry.¹⁴

¹⁴*See* 76 Fed. Reg. 46,729, 46,747 (August 3, 2011) ("Two ribbon seal sightings were reported during industry vessel operations in the Chukchi Sea 2006–2008 (Haley et al. 2010). The resulting density estimate of 0.0005/km² was used as the average

2. Oil and gas activities have had no detectable adverse impact on seal populations

Many years of studies have demonstrated to a very high degree of scientific reliability that oil and gas operations have no more than a negligible effect on individual ice seals, and no effect on ice seal populations in the Alaskan Arctic. These studies and information are summarized below. Although most of the studies pertain to ice seals generally, or to specific species such as ringed or bearded seals, this information is equally relevant to ribbon seals to the extent that temporal and spatial overlap between ribbon seals and oil and gas operations actually occurs.

a. Seismic operations

Ice seals show no more than a temporary response to seismic operations. Monitoring studies in the Alaskan and Canadian Beaufort Sea during 1996–2002 provided considerable information regarding behavior of seals exposed to seismic pulses (Miller *et al.* 2005; Harris *et al.* 2001; Moulton and Lawson 2002).¹⁵ The combined results suggest that some seals avoid the immediate area around active seismic vessels. In most survey years, ringed seal sightings tended to be farther away from the seismic

density.”); *see also* 76 Fed. Reg. 46,729, 46,738 (August 3, 2011) (“Other marine mammal species that have been observed *in the Chukchi Sea* but are less frequent or uncommon in the project area include narwhal *Monodon monoceros*), killer whale *Orcinus orca*), fin whale (*Balaenoptera physalus*), minke whale (*B. acutorostrata*), humpback whale *Megaptera novaeangliae*), and ribbon seal (*Histiophoca fasciata*). These species could occur in the project area, but each of these species is *uncommon or rare* in the area and relatively few encounters with these species are expected during the proposed shallow hazards survey.” (Emphases added).

¹⁵ Seismic surveys are conducted to gather information about subsurface geology to identify potential geologic traps that may hold or act as reservoirs of oil and natural gas. The interpreted data can be used to map the deep sub-seafloor, to depths of 6,100 m (20,000 ft) or more below the seafloor depending on the survey design, sound source, and local geology. Seismic survey equipment includes sound energy sources (airguns) and receivers (hydrophones / geophones). The airguns store compressed air that upon release forms a bubble that expands and contracts in a predictable pattern, emitting sound waves as it does. The sound energy from the source penetrates the seafloor and is reflected back to the surface where it is recorded and analyzed to produce graphic images of the subsurface features. This reflected energy is received by the hydrophones housed in submerged streamers towed behind the survey vessel. The two general types of offshore seismic surveys, 2D and 3D surveys, use similar technology but differ in survey transect patterns, number of transects, number of sound sources and receptors, and data analysis. Seismic surveys are conducted with vessels capable of towing one or more seismic cables deployed in parallel to record data suitable for interpretation of structures beneath the sea bed. There is usually a single survey vessel towing the airgun array and streamers that is supported by one or two similar-sized support vessels (chase vessels or marine mammal monitoring vessels).

vessel when the airguns were operating than when they were not (Moulton and Lawson 2002). However, these avoidance movements were relatively small, on the order of 100 meters (328 feet) to (at most) a few hundred meters, and many seals remained within 100–200 meters (328–656 feet) of the trackline as the operating airgun array passed by. Seal sighting rates at the water surface were lower during airgun array operations than during no-airgun periods in each survey year except 1997. Miller *et al.* (2005) also reported higher sighting rates during non-seismic than during line seismic operations, but there was no difference for mean sighting distances during the two conditions nor was there evidence ringed or bearded seals were displaced from the area by the operations.

The operation of the airgun array had minor and variable effects on the behavior of seals visible at the surface within a few hundred meters of the array. The behavioral data from these studies indicate that some seals were more likely to swim away from the source vessel during periods of airgun operations and more likely to swim towards or parallel to the vessel during non-seismic periods. No consistent relationship was observed between exposure to airgun noise and proportions of seals engaged in other recognizable behaviors (*e.g.*, “looked” and “dove”). Such a relationship might have occurred if seals seek to reduce exposure to strong seismic pulses, given the reduced airgun noise levels close to the surface where “looking” occurs (Miller *et al.* 2005; Moulton and Lawson 2002). Seals exposed to multiple seismic airguns in the Chukchi Sea during Shell and ConocoPhillips’ 2006 and 2007 operations showed no more than localized movement, and there was no indication of displacement from seismic sounds (Ireland *et al.* 2008).

In sum, ice seals do not show strong avoidance reactions to seismic operations. Pinnipeds frequently do not avoid the area within a few hundred meters of operating airgun arrays, even for large airgun arrays (Harris *et al.* 2001). Reactions are localized and confined to relatively small distances and durations, with no documented long-term effects on individuals or populations. *See generally* Final Programmatic Environmental Assessment, Arctic Ocean Outer Continental Shelf Seismic Surveys – 2006 (concluding that there has been no scientific link established between exposure to sound and adverse effects on any marine mammal population).

b. Other oil and gas activities

Other oil and gas operations that have been demonstrated to have no significant effect on ice seal populations include vibroseis, offshore development at Northstar, and drilling. Again, this information is provided to highlight the minimal effects of oil and gas operations on ice seals generally. This information may be relevant to ribbon seals to the limited extent there is any spatial or temporal overlap between ribbon seals and oil and gas activities.

- Vibroseis may cause some localized displacement of ringed seals from breathing holes and lairs in the immediate proximity of seismic lines but any such displacement was found to be insignificant with no effect on the population (Burns and Kelly 1982; Kelly *et al.* 1986; Richardson *et al.* 1995). Furthermore,

there have been no observed reductions in ringed seal densities in the areas with vibroseis (Kelly *et al.* 1988).

- The Northstar offshore facility in Alaska's Arctic has been in production since 2001. Studies show effects on basking ringed seals are few and no more than slight relative to the effects of natural environmental factors (Moulton *et al.* 2005). Similar findings were reported by ringed seal use of breathing holes and lairs (Williams *et al.* 2006). Ringed seal holes and lairs were established before and during activities within a few meters of the Northstar offshore oil development, and many of the structures were maintained for extended periods despite the presence of low-frequency industrial noise and vibration, construction and use of an ice road, and other occasional industrial activities on the sea ice.
- Offshore drilling operations have not been demonstrated to significantly affect ice seals. Studies show that seals are commonly seen near drillships drilling in the Arctic during summer and fall (Richardson *et al.* 1995; Brueggeman *et al.* 1991). Ringed and bearded seals have been observed diving within 50 meters of an underwater sound projector broadcasting steady low frequency drilling sounds (Richardson *et al.* 1995). These studies show that ice seals tolerate drilling noise (Richardson *et al.* 1995).
- Oil spills are not likely to have a significant effect on ice seal populations. Oil spills in the Arctic Ocean, if any, would likely affect a small portion of ice seal habitat. Ice seals are widespread in the Chukchi and Beaufort Seas, which provides a natural safety factor in the event of an oil spill and, moreover, ribbon seals occur in the Chukchi and Beaufort Seas to a substantially smaller degree (spatially, temporally, and numerically) than other ice seal species. These factors, combined with state-of-the-art spill prevention and response capabilities, have prevented and will prevent an oil spill from significantly affecting the ribbon seal species.

c. Previous agency findings

In its 2008 status review, NMFS concluded, based on the best available science, that oil and gas activities do not pose a significant threat to ribbon seal populations. As NMFS succinctly explained in its decision not to list the ribbon seal as threatened:

[t]he main issues for evaluating the impacts of exploration and development activities on ribbon seals are the effects of noise, disturbance, and potential oil spills produced from these activities. Any negative effects on ribbon seals from noise and disturbance associated with development activities are likely to be minor and localized. Ribbon seals are also highly dispersed during the summer, open water season, so the rate of interactions with seismic surveys would likely be low, and, in any case, seals have not been

shown to be significantly impacted by oil and gas seismic surveys.

73 Fed. Reg. at 79,827. Since that time, there has been no new scientific information that contradicts NMFS's findings. Furthermore, as illustrated below, these findings are established repeatedly in scientific studies and decisions by NMFS with respect to various seal species:

- “NMFS believes that any potential impacts to ringed, bearded, and spotted seals to the proposed on-ice geophysical seismic program would be no more than negligible, and would be limited to distant and transient exposure.” 73 Fed. Reg. 9535, 9543 (Feb. 21, 2008).
- “Pinnipeds are not likely to show a strong avoidance reaction to the airgun sources proposed for use. Visual monitoring from seismic vessels has shown only slight (if any) avoidance of airguns by pinnipeds and only slight (if any) changes in behavior. Ringed seals frequently do not avoid the area within a few hundred meters of operating airgun arrays (Harris *et al.*, 2001; Moulton and Lawson, 2002; Miller *et al.*, 2005).” 76 Fed. Reg. 69,958, 69,972 (Nov. 9, 2011).
- “In most survey years, ringed seal sightings tended to be farther away from the seismic vessel when the airguns were operating than when they were not (Moulton and Lawson, 2002). However, these avoidance movements were relatively small, on the order of 328 ft (100 m) to a few hundreds of meters, and many seals remained within 328–656 ft (100–200 m) of the trackline as the operating airgun array passed by.” *Id.*
- “The short-term exposures of pinnipeds to airgun sounds are not expected to result in any long-term negative consequences for the individuals or their populations, as observations have shown pinnipeds to be rather tolerant of (or habituated to) underwater seismic sounds.... Any effects would be temporary and of short duration at any one place.” 74 Fed. Reg. 55,368, 55,405 (Oct. 27, 2009).
- “Based on the vast size of the Arctic Ocean where feeding by marine mammals occurs versus the localized area of the marine survey activities, any missed feeding opportunities in the direct project area would be minor based on the fact that other feeding areas exist elsewhere.” 76 Fed. Reg. 30,110, 30,127 (May 24, 2011).
- “Some individual pinnipeds may be exposed to sound from the marine surveys more than once during the time frame of the project. However, as discussed previously, due to the constant moving of the survey vessel, the probability of an individual pinniped being exposed to sound multiple times is much lower than if the source is stationary. Therefore, NMFS has determined that the exposure of pinnipeds to sounds produced by the shallow hazards surveys and soil investigation in the Chukchi Sea is not expected to result in more than Level B harassment and is anticipated to have no more than a negligible impact on the animals.” 76 Fed. Reg. 46,729, 46,750 (Aug. 3, 2011).

- “Blackwell et al. (2004) reported little or no reaction of ringed seals in response to pile-driving activities during construction of a man-made island in the Beaufort Sea. Ringed seals were observed swimming as close as 151 ft (46 m) from the island and may have been habituated to the sounds which were likely audible at distances < 9,842 ft (3,000 m) underwater and 0.3 mi (0.5 km) in air. Moulton et al. (2003) reported that ringed seal densities on ice in the vicinity of a man-made island in the Beaufort Sea did not change significantly before and after construction and drilling activities.” 76 Fed. Reg. at 69,969.
- “Long term research and monitoring results on ice seals in the [sic] Alaska’s North Slope have shown that effects of oil and gas development on local distribution of seals and seal lairs are no more than slight, and are small relative to the effects of natural environmental factors.” 73 Fed. Reg. 46774, 46789 (Aug. 11, 2008).
- “In general, seals do not exhibit large behavioral or physiological reactions to limited surface oiling or incidental exposure to contaminated food or vapors (St. Aubin, 1990; Williams *et al.*, 1994). ... An oil spill in open-water is less likely to impact seals.” 76 Fed. Reg. at 69,969.
- “Pinnipeds generally seem to be less responsive to exposure to industrial sound than most cetaceans. Pinniped responses to underwater sound from some types of industrial activities such as seismic exploration appear to be temporary and localized (Harris et al., 2001; Reiser et al., 2009).” *Id.*
- “Blackwell et al. (2004a) observed 12 ringed seals during low-altitude overflights of a Bell 212 helicopter at Northstar in June and July 2000 (9 observations took place concurrent with pipe-driving activities). One seal showed no reaction to the aircraft while the remaining 11 (92%) reacted, either by looking at the helicopter (n = 10) or by departing from their basking site (n = 1). Blackwell et al. (2004a) concluded that none of the reactions to helicopters were strong or long lasting, and that seals near Northstar in June and July 2000 probably had habituated to industrial sounds and visible activities that had occurred often during the preceding winter and spring.” *Id.* at 69,970.
- “NMFS has preliminarily determined that Shell’s proposed exploration drilling program in Camden Bay, Beaufort Sea, Alaska is not expected to have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals [such as ice seals] or on the food sources that they utilize.” 75 Fed. Reg. 20,482, 20,495 (April 19, 2010).

3. The MMPA and oil spill prevention and response requirements are adequate regulatory mechanisms that sufficiently address industrial activities occurring in seal habitat

The oil and gas industry has been operating in the Alaskan Arctic Ocean and adjacent shoreline for over 30 years with no more than a negligible effect on ice seals

and other marine mammals. As confirmed by the scientific evidence presented above, and numerous analyses performed by NMFS and other federal agencies over a period of years, existing regulatory mechanisms sufficiently protect seal species from the impacts of authorized oil and gas activities, and from the risk of an oil spill.

The MMPA, 16 U.S.C. § 1361, *et seq.*, is intended to ensure that marine mammals are “protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management.” 16 U.S.C. § 1361(6). The MMPA’s primary management objective is to “maintain the health and stability of the marine ecosystem.” *Id.* To accomplish this objective, the MMPA enacts a broad moratorium on the “take,” import, or export of marine mammals and marine mammal products, except as expressly authorized. *See id.* §§ 1371(a), 1362(8) (defining moratorium), 1371(a)(1)-(6) (describing exceptions), 1373 (authorizing regulations on take and importation). In the MMPA, Congress authorized the Secretaries of Interior and Commerce, acting through the Services, to issue several different types of permits and authorizations allowing the take of marine mammals incidental to activities such as industrial projects, commercial fishing, military readiness, research, public display, and photography. *See, e.g., id.* §§ 1362(12), 1371(a)(1), 1374, 1387.

As relevant to commercial and industrial activities, other than commercial fishing, Section 101(a)(5) of the MMPA, 16 U.S.C. § 1371(a)(5), provides two means by which the Services may authorize incidental take. First, U.S. citizens may petition the Services to issue an incidental take regulation (“ITR”) for a period of up to five years authorizing the taking of small numbers of marine mammals incidental to a specified activity in a specified geographic region. *Id.* at § 1371(a)(5)(A). The Services must grant such an authorization if it is determined that the activity: (i) will have a “negligible impact on the species or stock” and; (ii) “will not have an unmitigable adverse impact on the availability of such species or stock for taking for subsistence uses.” *Id.* Once the Services’ ITR is promulgated pursuant to MMPA § 101(a)(5)(A), individual authorizations, known as Letters of Authorization (“LOAs”), may be issued by the Services to specific operators within the class of activities addressed in the ITR. LOAs must, among other things, identify mitigation measures “effecting the least practicable impact” on the species or stock and its habitat, and identify requirements for monitoring and reporting of take. *Id.* at § 1371(a)(5)(A)(i)(II). Second, pursuant to MMPA § 101(a)(5)(D), U.S. citizens may request authorization for the incidental take by harassment of small numbers of marine mammals while engaged in a specified activity in a specified geographic area. 16 U.S.C. § 1371(a)(5)(D). Known as Incidental Harassment Authorizations (“IHAs”), the Services may grant these approvals for a period of one year or less, provided that the same findings required for incidental take regulations (*i.e.*, negligible impact, no unmitigable adverse impact on subsistence, and mitigation effecting the least practicable impact) are made. *Id.*

With respect to the risk of oil spills, the Oil Pollution Act of 1990 (“OPA”), 33 U.S.C. § 2701, establishes extensive requirements under the Federal Clean Water Act for the prevention of, and response to, oil spills. In conjunction with the environmental protection requirements of the Outer Continental Shelf Lands Act (“OCSLA”), 43 U.S.C. § 1331 *et seq.*, and rigorous State of Alaska laws and regulations, a comprehensive and

demonstrably effective regulatory scheme exists regarding oil spill protection and response related to oil and gas operations occurring within seal habitat.

As addressed in detail in connection with the recent polar bear listing, the provisions of the MMPA, OCSLA and OPA, among others, have been extraordinarily effective in managing the potential for adverse impacts to marine mammal species, including seals, in the Arctic environment. *See* 73 Fed. Reg. at 28,283-85. As a consequence, as with the polar bear, it is well documented that oil and gas exploration, development and production activities do not threaten the ringed or bearded seal species, or any distinct population segment of such species, throughout all or any significant portion of their ranges because: (i) mitigation measures now in place and likely to be used in the future have been effective; (ii) no more than negligible impacts have been documented to individual seals, seal populations, or seal habitat from oil and gas activities; and (iii) development activities, and possible oil spill events, are limited and localized relative to the availability of seal habitat. *See, e.g., id.* at 28,265-66.

The oil and gas industry incorporates both design and operational features to minimize potential impacts to pinnipeds. The following is a list of some of the mitigation measures that have been employed by the oil and gas industry, in various circumstances, to minimize impacts to ribbon seals.¹⁶

Mitigation Employed During Seismic Surveys

- Seismic vessels configure airgun arrays to maximize the proportion of energy that propagates downward and minimizes horizontal propagation.
- Vessels limit the size of the seismic energy source to only that which is required to meet the technical objectives.
- If a marine mammal is detected outside of the safety radii, but appears likely to enter it, if safety and survey objectives allow, the vessel adjusts speed and course to minimize the likelihood of the animal entering the safety zone.
- Oil and gas companies conduct pre-season modeling and early season field assessments to establish and refine noise safety zones and other radii relevant to behavioral disturbances.
- Companies employ acoustics contractors to perform the direct measurement of received level of underwater sound versus the distance and direction from the air gun arrays. This data is quickly analyzed and used to verify and adjust the safety distances.
- Seismic exploration crews ramp up sound levels by gradually increasing the number and total volume of air guns firing, until full volume is achieved. A full

¹⁶ These mitigation measures are generally required in recent IHAs issued by NMFS. *See, e.g.,* 77 Fed. Reg. 4,765 (Jan. 31, 2012), 76 Fed. Reg. 69,958 (Nov. 9, 2011), 76 Fed. Reg. 68,974 (Nov. 7, 2011), 76 Fed. Reg. 58,473 (Sept. 21, 2011), 76 Fed. Reg. 41,463 (July 14, 2011), 76 Fed. Reg. 33,246 (June 8, 2011), 76 Fed. Reg. 46,729 (Aug. 3, 2011), 76 Fed. Reg. 38,621 (July 1, 2011), 75 Fed. Reg. 25,730 (May 7, 2010), 75 Fed. Reg. 20,482 (April 19, 2010).

ramp up does not begin until there has been a minimum of a 30-minute period of observation of the entire safety zone by the NMFS-approved Protected Species Observers (“PSOs”)¹⁷ confirming that no marine mammals are present. If the entire safety zone is not visible during the 30-minute lead in, ramp up does not proceed.

- If a marine mammal is sighted within the safety zone, ramp up will not begin until the pinniped is observed leaving the safety zone or is not observed for 15 minutes.
- Where a marine mammal is sighted within the safety zone, or appears likely to enter the safety zone of a single airgun, the airgun array is shut down.
- When a marine mammal is sighted approaching or in the applicable safety zone of the full gun array, there is an immediate reduction in the number of operating airguns from all guns firing to only firing those outside the safety zone occupied by the mammal. The vessels employ a precautionary means of measuring the safety radii to the mammal.
- Vessels are kept anchored when approached by marine mammals to avoid the potential for avoidance reactions by the animals.
- Vessels travel at reduced speeds during inclement weather.

Monitoring for Marine Mammals During Seismic Exploration

- Vessels employ qualified PSOs onboard to monitor the safety radii for pinnipeds, which varies based on the type of activity taking place. PSOs alternate in four-hour shifts to avoid fatigue and employ laser range finders to aid in estimating distance. PSOs monitor the occurrence and behavior of marine mammals near the seismic vessel during all daylight periods and most daylight periods when the airgun arrays are not operating. PSOs watch for and identify marine mammals, record their numbers, distances, and reactions to the seismic operations, advise seismic survey personnel of the presence or approach of marine mammals within the designated “safety zones,” initiate mitigation measures (e.g., ramp ups, power downs, and shut downs)¹⁸; and document “take by harassment” as defined by NMFS. Vessels employ a sufficient number of PSOs to ensure 100 percent monitoring coverage during all periods of seismic and drilling operation, 30 minutes prior to ramp up, and two observer coverage for as large a fraction of other operating hours as possible. PSOs conduct monitoring from the best available vantage point, which is usually the bridge or flying bridge. Data gathered by observers is recorded into databases or handheld computers. Field reports are prepared weekly summarizing the results of the monitoring program and provided to NMFS.

¹⁷ PSOs are also referred to as Marine Mammal Observers and Protected Species Visual Observers.

¹⁸ A power down is defined as the immediate reduction in the number of array guns firing to some smaller number. A shut down is the immediate cessation of firing of all airguns.

- PSOs scan systematically with the unaided eye and 7 x 50 reticle binoculars, supplemented with “Big-eye” binoculars. Inexperienced PSOs are paired with experienced PSOs to ensure the quality of marine mammal observation.
- Where visibility is low due to darkness or adverse weather conditions, infra-red or night-vision binoculars are used.
- Some vessels also employ Passive Acoustic Monitoring to complement the visual monitoring program. Visual monitoring typically is not effective during periods of poor visibility or at night, and even with good visibility, is unable to detect marine mammals when they are below the surface or beyond visual range. Acoustical monitoring can be used in conjunction with visual observations to improve detection, identification, and localization of marine mammals.
- Seismic exploration teams employ multiple PSOs on “chase boats” which are smaller boat that accompany the seismic source vessel to ensure that other boats do not interfere with the seismic array.

Mitigation for Exploratory Drilling

- Companies engage in pre-drill testing to quantify the absolute sound produced by drilling and to monitor their variations with time, distance, and direction from the drill ship.
- Oil and gas companies conduct pre-season sound propagation modeling to establish the appropriate exclusion and behavioral radii.
- Employment of vessel-based NMFS-approved trained PSOs to monitor the occurrence and behavior of marine mammals near the drillship during all daylight periods during operation and most daylight periods when drilling is not occurring. PSOs watch for and identify marine mammals, record their numbers, distances and reactions to the drilling operation. Oil and gas companies adhere to strict limits on the number of consecutive hours that a PSO may be on duty and the total number of on-duty hours that may be worked in a 24-hour period. PSOs are rotated every 3-6 weeks to avoid observer fatigue.
- Continuous sound-level monitoring throughout all exploration drilling activities using either bottom-founded hydrophones or a radio buoy approach.
- Use of an acoustic net array to collection information about the occurrence and distribution of marine mammals and to measure the ambient soundscape of surrounding areas.
- Vessels reduce speed or change course if a marine mammal is sighted from a vessel in transit and will only resume full activity (e.g., full support vessel speed) only after the marine mammals are confirmed to be outside the safety zone.
- Aircraft is prohibited from flying below 1,500 ft (457 m) altitude except during takeoffs and landings or in emergency situations).
- Vessels remain anchored when approached by marine mammals to avoid the potential for avoidance reactions by such animals.

Reporting to NMFS

- The results of vessel-based monitoring are presented to NMFS in final technical reports. These reports includes a summaries of monitoring efforts, occurrences of power downs, shut downs, ramp ups and ramp up delays, analyses of factors affecting detectability of marine mammals, species occurrence and distribution, and an analysis of the effects of seismic operations.

4. Prohibitions or limitations on domestic oil and gas activities will result in the import of foreign oil, not reductions in GHG emissions

It is well-documented that petitioning to list Arctic (or sub-Arctic) marine mammals under the ESA, including ribbon seals, is a tactic by CBD to draw public attention and political pressure to the issues surrounding global climate change and to promote its separate campaign to impede Alaska oil and gas activities.¹⁹

However, CBD's attempt to juxtapose the Alaska oil and gas industry as irreconcilable with the survival of Arctic marine mammals is as revealing as it is false. The protection of the environment, including species listed under the ESA, and the responsible development of natural resources for energy, are both important national priorities that find support in federal laws, regulations, and policies. CBD exists to advocate for only the former of these priorities, and has taken on as one of its missions the elimination of the other. By contrast, it is the responsibility of NMFS, other agencies, and ultimately the federal courts, to harmonize these (and many other) important Congressional mandates. Fortunately, the survival of Arctic species on the one hand, and continuing oil and gas operations in Alaska on the other, are not in conflict. No matter how often and how fervently it may be stated by CBD, there is well-documented, long-standing and uncontradicted evidence demonstrating that the oil and gas industry in

¹⁹See *Center for Biological Diversity, et al. v. Kempthorne et al.*, No. 3:07-cv-00141-RRB (D. Alaska Apr. 22, 2008), *aff'd*, 588 F.3d 701 (9th Cir. 2009) (challenge to Beaufort Sea polar bear incidental take regulations for oil and gas activities); *North Slope Borough, et al. v. Minerals Management Service, et al.*, No. 3:07-cv-0045-RRB (D. Alaska Feb. 12, 2007), *aff'd*, 343 Fed. Appx. 272 (9th Cir. 2009) (challenge to Beaufort Lease Sale 202); *Native Village of Point Hope, et al. v. Salazar, et al.*, 730 F. Supp. 2d 1009 (D. Alaska 2010), *amended by*, No. 1:08-cv-0004-RRB (D. Alaska Aug. 2, 2010)(challenge to Chukchi Sea Lease Sale 193); *Center for Biological Diversity, et al. v. U.S. Department of Interior, et al.*, 563 F.3d 466 (D.C. Cir. 2009) (challenge to MMS 5-year plan for OCS oil and gas leasing); *Alaska Wilderness League, et al. v. Minerals Management Service, et al.*, 564 F. Supp. 2d 1077 (D. Alaska 2008) (challenge to seismic survey approvals for Shell and BP); *Center for Biological Diversity, et al. v. Kempthorne*, No. C-08-1339-CW (N.D. Cal. Oct. 2, 2008) (challenge to 4(d) ESA regulation for polar bears); *Center for Biological Diversity, et al. v. Salazar*, No. 08-cv-00159-RRB (D. Alaska Jan. 8, 2010), *appeal pending*, No. 10-35123 (9th Cir.) (challenge to Chukchi Sea polar bear incidental take regulations for oil and gas activities).

Alaska, as regulated and monitored under the MMPA, does not injure or otherwise have more than a negligible effect on any marine mammal species.

Nor is it the case that if all oil and gas activity in Alaska, and therefore all Alaska oil production, were eliminated, the use of oil and gas for energy would decline in the United States or elsewhere, emissions of GHGs would decline, or prospects for the future of sea ice habitat would change. Alaska oil and gas reserves are important national energy and national security resources. In the absence of development of these domestic resources, which are critical to national energy policy and to the economy of Alaska, the primary result would be a substantial increase in the import of oil produced by foreign countries. By not producing our own oil and gas resources, and instead relying on imported oil, the United States would only transfer (export) the environmental impacts of exploration and production to other countries, while increasing transportation effects and related risks. There is no evidence that increasing our use of imported oil and gas would result in a reduction in GHG emissions, amelioration of global climate change, or improvements in the long-term prospects for sea ice habitat or ice-dependent marine mammal species. *See, e.g., Final Environmental Impact Statement, Chukchi Sea Planning Area Oil and Gas Lease Sale 193*, OCS EIS/EA MMS 2007-026 at pp. ES-7 – ES-8, IV-23 – IV-26; *Final Environmental Impact Statement, Beaufort Sea Planning Area Oil and Gas Lease Sales 186, 195 and 202*, OCS EIS/EA MMS 2003-001 at pp. IV-20 – IV-22.

III. CONSIDERATIONS IN THE EVENT OF A PROPOSED LISTING

Given the above facts – that the ribbon seal species is currently healthy, that avoidance, mitigation and monitoring mandated by existing regulatory mechanisms protect the seals from activities in and near the Alaskan Arctic, that ribbon seals only minimally overlap with oil and gas activities in the Alaskan Arctic, and that neither the ESA or NMFS is equipped to regulate sea ice recession, GHG emissions, or global climate change – there are no special management considerations that may be applied in Alaska to protect ribbon seals, or their habitat, beyond current measures already afforded through established programs. Nonetheless, the burdens and costs of a proposed ESA listing (and any related designation of critical habitat) would be entirely and disproportionately born by the Inupiat people that live in the Alaskan Arctic, by those industries, such as the oil and gas industry, that operate on and adjacent to Alaska’s North Slope, and by the State of Alaska. Thus, the people and industries of Alaska will unnecessarily shoulder the consequences of the ineffectual regulatory burdens associated with a listing of the ribbon seal.

As set forth above, the Associations strongly believe that the available scientific data and information does not support an ESA listing of the ribbon seal species, as NMFS found in 2008. However, in the event that NMFS proposes to list the ribbon seal, the Associations are concerned that a final listing rule should not be misused or impose undue burdens on Arctic residents and industries. To avoid unnecessary and unintended burdens, as detailed below, in the event of a proposed listing, NMFS should also propose a special rule under § 4(d) of the ESA establishing limits on application of the § 9 take prohibition. In addition, in the event of a proposed listing, NMFS should also determine that designation of critical habitat is not warranted.

A. NMFS Should Propose and Adopt an ESA § 4(d) Rule

In enacting the ESA, Congress only applied a blanket prohibition against the “take” of species categorized as “endangered.” 16 U.S.C. § 1538. Given the healthy status of the ribbon seal species, and given the absence of adverse effects attributable to climate change, there is no conceivable basis for finding that ribbon seals are “endangered.” Should NMFS decide to propose the ribbon seal as “threatened” based upon projections of future climate change effects (which we maintain is not warranted), then like many other listed threatened species, there would be no statutory prohibition on take under the ESA. However, § 4(d) of the ESA provides NMFS with authority to adopt regulations to prohibit the take of threatened species and to adopt other regulations deemed “necessary and advisable to provide for the conservation of” threatened species. 16 U.S.C. § 1533(d). In addition, § 4(d) expressly provides that the Services may apply take prohibitions in § 9(a)(1) of the ESA to threatened species. *Id.*

ESA § 4(d) grants NMFS the authority and discretion to tailor application of take prohibitions to threatened species in a manner that is specific to the circumstances and conservation needs of each species. Here, because ribbon seals are protected under the MMPA and would be protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”), NMFS should determine, as did FWS with polar bears, that activities successfully regulated or exempted under these statutes need not be subjected to additional take regulation under the ESA. In addition, NMFS should use § 4(d) to limit application of the § 9 take prohibition to exclude activities occurring outside the range of the ribbon seal.

Specifically, in the event of a proposed listing, NMFS should propose a § 4(d) rule for ribbon seals that provides the following limitations:

- (1) The prohibitions in § 9(a)(1) of the ESA (16 U.S.C. § 1538(a)(1)) relating to endangered species do not apply as to ribbon seals to any activity that is authorized or exempted under the MMPA, 16 U.S.C. § 1361 *et seq.*, CITES, or both, provided that the person carrying out the activity has complied with all the terms and conditions that apply to that activity under the provisions of the MMPA and CITES and their implementing regulations.
- (2) The prohibitions in § 9(a)(1) of the ESA (16 U.S.C. § 1538(a)(1)) relating to endangered species do not apply to any taking of ribbon seals that is incidental to, but not the purpose of, carrying out an otherwise lawful activity within the United States, except for any incidental taking caused by activities in areas subject to the jurisdiction of the United States within the current range of the ribbon seal species.

The purpose of these proposed limitations is to rationally and lawfully reconcile the conduct of routine commerce with the overlay of an ESA regulatory regime that is premised, in these instances, upon a predicted future global threat to presently healthy and abundant species. As to the proposed MMPA limitation, there is a well-established

record that regulated activities occurring in compliance with the MMPA are not a past, present, or future foreseeable threat to ringed and bearded seals (or to any other marine mammals). As to the proposed limitation for activities outside the range of ribbon seals, this provision is primarily relevant to activities that emit greenhouse gas emissions in the Lower 48 states or within Alaska, but outside the range of ribbon seals. The Services have acknowledged that the best available science does not establish a causal connection between GHGs from specific facilities and impacts Arctic ice habitat. *See e.g.*, 73 Fed. Reg. 76,249 (Dec. 16, 2008) (polar bear 4(d) rule).

The Associations do not contend that the MMPA and the ESA are identical. However, as FWS has determined in the context of the polar bear ESA listing:

Many provisions provided under the MMPA and CITES are comparable to or stricter than similar provisions under the ESA, including the definitions of take, penalties for violations, and use of marine mammals....

Additionally, the process for authorization of incidental take under the MMPA is more restrictive than the process under the ESA. The standard for issuing incidental take under the MMPA is “negligible impact.” Negligible impact under the MMPA, as defined at 50 C.F.R. 18.27(c), is an impact that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival. This is a more protective standard than standards for issuing incidental take under the ESA[.]

Id. at 76,26. Because the MMPA provisions relevant to the proposed § 4(d) limitation are comparable or stricter in application than the ESA, and because regulation of these same activities under the MMPA by NMFS has a demonstrated record of success, the proposed § 4(d) limitation is a sensible and rigorous means of assuring conservation of the species.

This proposed approach, as mentioned above, was successfully employed by the FWS and was upheld by the district court for the District of Columbia against CBD’s ESA-based challenges. *See Polar Bear*, 2011 U.S. Dist. LEXIS 119476 (Oct. 17, 2011).²⁰ The proposed MMPA § 4(d) limitation also serves the policies set forth in the

²⁰ *See id.* at 47-49 (“Accordingly, the Service concluded that even extending the full take prohibitions of the ESA to the polar bear would not effectively address the threat to the species from sea ice losses caused by global greenhouse gas emissions. The administrative record amply supports the Service’s conclusion. In a memorandum summarizing the most recent findings on this issue by the leading international climate science research organizations, the United States Geological Survey determined that ‘[i]t is currently beyond the scope of existing science to identify a specific source of CO₂ emissions and designate it as the cause of specific climate impacts at an exact location.’ AR4D 14144A.02. Similarly, in a memorandum to the Service, the Environmental

President's Executive Order Improving Regulation and Regulatory Review (January 18, 2011). See <http://www.whitehouse.gov/the-press-office/2011/01/18/improving-regulation-and-regulatory-review-executive-order> (visited on Feb. 7, 2012).

In sum, (i) the need for application of the ESA "take" prohibitions is presently mitigated by the fact that the ribbon seal species is healthy and abundant; (ii) the oil and gas activities covered by the proposed limitation are not a foreseeable threat to the continued existence of the ribbon seal, and are compatible with seal conservation; (iii) the existing statutory and regulatory requirements imposed under the MMPA for the protection and management of marine mammals provide a comprehensive and demonstrably successful program for the conservation of ribbon seals; and (iv) should circumstances change in future decades, NMFS retains the authority to amend its § 4(d) rule to respond as may be appropriate. For these reasons, adoption of the proposed limitation set forth above is a reasonable regulatory means of rationalizing essential existing and future commercial activities with any listing that is proposed by NMFS.

B. NMFS Should Not Designate Critical Habitat

In the event that NMFS proposes to list the ribbon seal under the ESA, the agency should find that designation of critical habitat is not warranted. There are numerous factors that support this conclusion. First, human activities in the Alaskan Arctic are already highly regulated to prevent potential adverse impacts to marine mammal species, including adverse impacts on seal habitat. Accordingly, any additional protection stemming from designation of critical habitat would be duplicative and, thus, unnecessary.

Second, in order to qualify as critical habitat under the ESA, a specific area must possess those physical and biological features that are (1) essential to the conservation of the species *and* (2) which may require special management considerations or protection. 16 U.S.C. § 1532(5)(A)(i). Habitat currently occupied by ice seals in the United States does not meet either of these requirements. It will be difficult, if not impossible, for NMFS to establish that ice seal habitat in the United States is *essential* to the conservation of the species as a whole because habitat areas under the United States' jurisdiction comprise only a small portion of the current ranges of these species. Moreover, the future value of ice seal habitat in the United States cannot be determined due to the complexities involved in identifying which specific areas will become essential to the conservation of the species as a result of global climate change. Even if NMFS is

Protection Agency Office of Air and Radiation observed that "[t]he climate change research community has not yet developed tools specifically intended for evaluating or quantifying end-point impacts attributable to the emissions of [greenhouse gases] from a single source, and we are not aware of any scientific literature to draw from regarding the climate effects of individual, facility-level [greenhouse gas] emissions." AR4D 14336. Based on these findings, the Service Director issued a subsequent policy memorandum in which he concluded that "[t]he best scientific data available today do not allow us to draw a causal connection between [greenhouse gas] emissions from a given facility and effects posed to listed species or their habitats."").

able to demonstrate that habitat in the United States is essential to the conservation of the ribbon seal species, there are *no special management considerations* that can be applied to protect these areas from sea ice recession.

In sum, because there are no foreseeable land management measures that will prevent the projected decline in sea ice, and because human activities within ice seal habitat are already adequately regulated to protect seals and their habitat, special management considerations and protections cannot be developed under 16 U.S.C. § 1532(5)(A)(i)(II) for areas under United States jurisdiction.²¹

IV. CONCLUSION

Like NMFS and members of the public, we are committed to protecting Arctic wildlife. However, generalized concerns for seals and global climate change do not, by themselves, require NMFS to list ribbon seals as a threatened species under the ESA. As the Services have acknowledged, the ESA is not the right tool to address climate change concerns. Instead, climate change is a global issue that demands global attention and is currently being considered by the Executive Branch and various international bodies. Given the healthy status of the ribbon seal, as recently determined by NMFS on an extensive administrative record, the inherent uncertainties in the future emission scenarios which underlie predictive models about the potential extent and pace of sea ice decline, the fact that activities currently taking place in the Arctic are highly regulated to avoid population-level impacts, the fact that those activities have minimal overlap with the ribbon seal species distribution, and the limitations of the ESA itself, a listing of ribbon seals is not warranted.

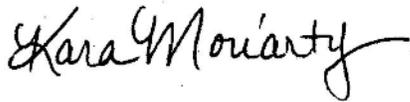
²¹ The ESA requires also NMFS to consider economic impacts of designating critical habitat. 16 U.S.C. § 1533(b)(2). In addition, unless excluding an area would result in extinction of the species, the ESA allows NMFS to decline to designate critical habitat or to exclude certain areas from a critical habitat designation when the costs of designating outweigh the benefits. *Id.* When calculating costs, NMFS must conduct a “full analysis of all economic impacts, regardless of whether those impacts are attributable co-extensively to other causes.” *See New Mexico Cattle Growers v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1285 (10th Cir. 2001); *Home Builders Ass’n of Northern California v. U.S. Fish & Wildlife Serv.*, No. S-05-0629, 2007 WL 201248, *5-6 (E. D. Cal. Jan. 24, 2007). In the present instance, designation of critical habitat would provide virtually no benefit to the seal species while imposing substantial costs on business entities, communities, and individuals operating in the Arctic who pose no demonstrable threat to the seals or their habitat. Conversely, designating critical habitat will have a demonstrable economic impact on the Alaskan oil and gas industry, affect subsistence economies in both the United States and Canada, and place additional, unnecessary administrative burdens on federal agencies.

Thank you for your consideration of our comments.

Sincerely,

A handwritten signature in black ink that reads "Richard Ranger". The signature is written in a cursive style with a large initial 'R'.

Richard Ranger
Senior Policy Advisor
Director, Upstream and Industry Operations
American Petroleum Institute

A handwritten signature in black ink that reads "Kara Moriarty". The signature is written in a cursive style with a large initial 'K'.

Kara Moriarty
Executive Director
Alaska Oil and Gas Association

cc: The Honorable Sean Parnell, Governor, State of Alaska
The Honorable Lisa Murkowski, United States Senate
The Honorable Mark Begich, United States Senate
The Honorable Don Young, United States House of Representatives

LITERATURE CITED

- B. M. Allen and R. P. Angliss. 2009, Alaska Marine Mammal Stock Assessments, 2009. National Oceanic and Atmospheric Administration Technical Memorandum National Marine Fisheries Service -AFSC-206. U.S. Department of Commerce National Oceanic and Atmospheric Administration National Marine Fisheries Service, Alaska Fisheries Science Center, National Marine Mammal Laboratory. Seattle Washington.
- Angliss, R.P. and Outlaw. 2008. Alaska Marine Mammal Stock Assessment 2007. National Oceanic and Atmospheric Administration Technical Memorandum National Marine Fisheries Service-AFSC-180. U.S. Department of Commerce National Oceanic and Atmospheric Administration National Marine Fisheries Service, Alaska Fisheries Science Center, National Marine Mammal Laboratory. Seattle Washington.
- Blackwell, S. B., C. R. Greene, Jr., and W. J. Richardson. 2004. Drilling and operational sounds from an oil production island in the ice-covered Beaufort Sea. *Journal of the Acoustical Society of America* 116:3199-3211.
- Boveng, P. et al. 2008. Status review of the ribbon seal (*Histiophoca fasciata*). National Oceanic and Atmospheric Administration Technical Memorandum National Marine Fisheries Service-AFSC-191. U.S. Department of Commerce National Oceanic and Atmospheric Administration National Marine Fisheries Service, Alaska Fisheries Science Center, National Marine Mammal Laboratory. Seattle Washington.
- Brandon, J. and P.R. Wade. 2004. Assessment of the Bering-Chukchi-Beaufort Seas stock of bowhead whales. Unpub. report submitted to Int. Whal. Comm. (SC/56/BRG20). 32 pp.
- Brueggeman, J.J., D.P. Volsen, R.A. Grotefendt, G.A. Green, J.J. Burns, and D.K. Ljungblad. 1991. 1990 Walrus Monitoring Program, Popcorn, Burger, and Crackerjack Prospects in the Chukchi Sea. Shell Western E&P Inc. 53 pp plus appendices.
- Burns, J.J., and B.P. Kelly. 1982. Studies of ringed seals in the Alaskan Beaufort Sea during winter: impacts of seismic exploration. Unpublished annual report, OCSEAP RU 232. U.S. Department of Commerce, Office of Maritime Pollution Assessment, NOAA, Juneau, AK.
- George, C.J., J. Zeh, R. Suydam, and C. Clark. 2004a. Abundance and population trends (1978-2001) of western arctic bowhead whales surveyed near Barrow, Alaska. *Mar. Mamm. Sci.* 20(4):755-773.

- George, C.J., R. Suydam, J. Zeh, and W. Koski. 2004b. Estimated pregnancy rates of bowhead whales from examination of landed whales. Paper SC/56/BRG10 presented to the Scientific Committee of the International Whaling Commission.
- Haley, B., J. Beland, D.S. Ireland, R. Rodrigues, and D.M. Savarese. 2010. Chukchi Sea vessel-based monitoring program. (Chapter 3) In: Funk, D.W, D.S. Ireland, R. Rodrigues, and W.R. Koski (eds.). 2010. Joint Monitoring Program in the Chukchi and Beaufort seas, open water seasons, 2006–2008. LGL Alaska Report P1050-3, Report from LGL Alaska Research Associates, Inc., LGL Ltd., Greeneridge Sciences, Inc., and JASCO Research Ltd., for Shell Offshore, Inc. and Other Industry Contributors, and National Marine Fisheries Service, U.S. Fish and Wildlife Service. 499 p. plus Appendices.
- Harris, R.E., G.W. Miller and W.J. Richardson. 2001. Seal responses to airgun sounds during summer seismic surveys in the Alaskan Beaufort Sea. *Marine Mammal Science* 17(4):795-812.
- Heptner, L. V. G., K. K. Chapskii, V. A. Arsen'ev, and V. T. Sokolov. 1976. Ribbon (banded) seal, *Phoca (Histriophoca) fasciata* Zimmermann, 1783. Pages 436-452 in L. V. G. Heptner, N. P. Naumov, and J. Mead, editors. *Mammals of the Soviet Union*. Volume II, Part 3--Pinnipeds and Toothed Whales, Pinnipedia and Odontoceti. Vysshaya Shkola Publishers, Moscow, Russia. (Translated from Russian by P. M. Rao, 1996, Science Publishers, Inc., Lebanon, NH).
- Ireland, D.S., D.W. Funk, R. Rodrigues, and W.R. Koski (eds). 2008. Joint monitoring program in the Chukchi and Beaufort seas, July-November 2007. LGL Alaska Report P971-1, Report from LGL Alaska Research Associates, Inc., LGL Ltd., JASCO Research, Ltd., and Greeneridge Sciences, Inc., for Shell Offshore, Inc., ConocoPhillips Alaska, Inc., and National Marine Fisheries Service, U.S. Fish and Wildlife Service. 445 pp., plus appendices.
- Kelly, B. P. 1988. Ringed Seal. Pages 57-75 in J. W. Lentfer (ed), *Selected Marine Mammals of Alaska: Species Accounts with Research and Management Recommendations*. Marine Mammal Commission, Washington, D.C.
- Kelly, B.P., J.J. Burns, and L.T. Quakenbush. 1988. Responses of ringed seals to noise disturbance. p. 27-38 in: W.M Sackinger et al. (eds.), *Port and ocean engineering under arctic conditions*, vol II. Geophys. Inst., Univ. Alaska, Fairbanks. 111 pp.
- Kelly, B.P., L.T. Quakenbush and J.R. Rose. 1986. Ringed seal winter ecology and effects of noise disturbance. *Outer Cont. Shelf Environ. Assess. Program*, Final Report Princ. Invest., NOAA, Anchorage, AK 61:447-536.
- Miller, G.W., V.D. Moulton, R.A. Davis, M. Holst, P. Millman, A. MacGillivray and D. Hannay. 2005. Monitoring seismic effects on marine mammals-southeastern Beaufort Sea, 2001-2002. In S.L. Armsworthy, P.J. Cranford, and K. Lee (eds.),

- Offshore oil and gas environmental effects monitoring/approaches and technologies. Battelle Press, Columbus, OH.
- Moulton, V.D. and J.W. Lawson. 2002. Seals, 2001. Pages 3-1 to 3-46 in W.J. Richardson and J.W. Lawson (eds.), Marine mammal monitoring of WesternGeco's open-water seismic program in the Alaskan Beaufort Sea, 2001. LGL Rep. TA2564-4. Rep. from LGL Ltd., King City, Ont., for WesternGeco LLC, Anchorage, AK; BP Explor. (Alaska) Inc., Anchorage, AK; and Nat. Mar. Fish. Serv., Anchorage, AK, and Silver Spring, MD. 95 pp.
- Moulton, V.D., W. J. Richardson, R.E. Elliott, T.L. McDonald, C. Nations, and M.T. Williams. 2005. Effects of an offshore oil development on local abundance and distribution of ringed seals of the Alaskan Beaufort Sea. *Marine Mammal Science* 21(2): 217-242.
- Patterson, B.D., G. Ceballos, W. Sechrest, M.F. Tognelli, T. Brooks, L. Luna, et al. 2007. Digital distribution maps of the mammals of the Western Hemisphere, version 3.0. NatureServe, Arlington, Virginia.
- Richardson, W.J., C.R. Greene, Jr., C.I. Malme and D.H. Thomson. 1995. Marine mammals and noise. Academic Press, San Diego. 576 pp.
- St. Aubin, D. J. 1990. Physiological and toxic effects on pinnipeds. Pages 235-239 in J. R. Geraci and D. J. St. Aubin, editors. *Sea Mammals and Oil: Confronting the Risks*. Academic Press, Inc., San Diego, CA.
- Williams, T.M., C.S. Nations, T.G. Smith, V.D. Moulton, and C.J. Perham. 2006. Ringed seal use of subnivean structures in the Alaskan Beaufort Sea during development of an oil production facility. *Aquatic Mammals* 32(3):311-324.
- Williams, T.M., G.A. Antonelis and J. Balke. 1994. Health evaluation, rehabilitation and release of oiled harbor seal pups. p 227-241 In: T.R. Loughlin (ed.), *Marine Mammals and the Exxon Valdez*. Academic Press, San Diego.
- Zeh, J.E. and A.E. Punt. 2004. Updated 1978-2001 abundance estimate and their correlations for the Bering-Chukchi-Beaufort Seas stock of bowhead whales. Unpublished report submitted to the Int. Whal. Comm. (SC/56/BRG1). 10 pp.