



Environmental Assessment

Endangered Species Act 4(d) Regulations for Threatened Polar Bears

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EXECUTIVE SUMMARY

The polar bear (*Ursus maritimus*) was listed as a threatened species under the Endangered Species Act (ESA) on May 15, 2008 (73 FR 28212). The U.S. Fish and Wildlife Service (Service) is issuing a rule under section 4(d) of the ESA (“special rule”) to provide measures that are necessary and advisable for the conservation of the species and to prohibit by regulation with respect to the polar bear certain acts prohibited in section 9(a)(1) of the ESA. The preferred alternative adopts the existing conservation regulatory requirements under the Marine Mammal Protection Act of 1972, as amended (MMPA), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) as the primary regulatory provisions for this threatened species. Nonetheless, if an activity is not authorized or exempted under the MMPA or CITES and would result in an act that would be otherwise prohibited under the general prohibitions for threatened species found in the ESA implementing regulations at 50 CFR 17.31, then the prohibitions at 50 CFR 17.31 apply, and we would require authorization under 50 CFR 17.32. In addition, the special rule provides that any incidental take of polar bears that results from activities that occur within the United States but outside of the current range of the species is not a prohibited act under the ESA. This special rule does not affect any existing requirements under the MMPA, including incidental take restrictions, or CITES, regardless of whether the activity occurs inside or outside the current range of the polar bear. Further, none of the four alternatives affect the obligation of federal agencies to consult under section 7 of the ESA.

The preferred alternative (alternative 2) would have beneficial effects for polar bears, Alaska Native communities, and industrial, military and academic entities operating within the polar bear’s range, such as oil and gas exploration and development, mining, military activities, and

scientific research. By maintaining the MMPA and CITES as the primary regulatory framework for polar bear conservation, management programs beneficial to the conservation of the polar bear in the United States and currently operating under MMPA authorizations or exemptions would continue, without imposing redundant permitting requirements under the ESA. These programs provide authorization or exemptions for local communities, the oil and gas industry, and other people who live and work within the range of the polar bear to non-lethally haze problem bears away from potentially dangerous situations. Inability to haze problem bears due to ESA restrictions could promote escalation of human-bear encounters into more dangerous situations, potentially culminating in the death of a human or a polar bear. Current MMPA exemptions also enable authorized persons to aid an entangled marine mammal, such as a polar bear, to prevent injury or death of the animal, whereas the ESA would only enable certain Federal or State representatives to render such aid without additional authorization. Further, the Service recently codified guidelines under the MMPA (50 CFR 18.34) for the public that set forth best practices for safely and non-lethally deterring polar bears from damaging private and public property and endangering the public. Without the provisions of the special rule, a person legally hazing a bear under the MMPA, whether under an exemption, an authorization, or the guidelines at 50 CFR 18.34; a person freeing an entangled bear (most likely a cub); or a person assisting an abandoned cub or sick or injured bear; would have to first apply for and receive a separate ESA permit to avoid a violation of the ESA and would no longer be protected from potential prosecution should the taking of a polar bear occur. Being able to anticipate the need for such authorization in advance is in many situations not practical or even possible. The preferred alternative also provides socioeconomic benefits. Cultural exchange activities between Alaska Natives and Natives from Greenland, Russia and Canada, with whom they share a

common heritage, could continue uninterrupted under the provisions set forth under the MMPA. Also, by adopting the registered agent and tannery process authorized under the MMPA, the ability of Alaska Natives to meet subsistence needs as provided under ESA's section 10(e) is preserved. The proposed alternative also limits the geographic range of the incidental take prohibition under Section 9 of the ESA to those activities occurring within the current range of the polar bear. This provides for the conservation of the polar bear, while disallowing certain potential legal challenges to activities occurring outside of the current range of the polar bear. Such legal challenges to incidental take could be a legal, financial and administrative burden that would not result in protection for the polar bear or its habitat. All other requirements will continue to apply to activities outside of the current range of the polar bear, such as ESA Section 7 consultation requirements, all other Section 9 direct take, sale and import/export prohibitions and MMPA requirements.

In addition to the preferred alternative, the Service evaluated the following alternatives:

- ***Alternative 1 (No Action Alternative)***. Under the no action alternative, no 4(d) special rule would be promulgated for polar bear conservation under the ESA. Thus, all prohibitions and exceptions for threatened wildlife provided under 50 CFR 17.31 and 17.32, which incorporate in large part the provisions of 50 CFR 17.21 and some of 17.22, would apply to the polar bear due to its "threatened" ESA listing status. Unlike most "no action" alternatives described in NEPA analyses, this "no action" alternative would constitute a change from the physical, biological and socioeconomic status quo for polar bear conservation in Alaska, because the interim 4(d) special rule came into effect on the same day that the polar bear was listed as threatened under the ESA; therefore the regulatory prohibitions and authorizations for threatened wildlife provided under 50 CFR

17.31 and 17.32 that apply in the absence of a special rule have never been applied to the polar bear. Thus, implementation of the “no action” alternative would cause a shift from the environmental and socioeconomic baseline of the polar bear.

The “no action” alternative would have negative biological consequences for the polar bear, because communities would have fewer tools with which to prevent potentially injurious or lethal human-bear interactions, or to come to the aid of an entangled, abandoned or injured polar bear. This alternative would also have a detrimental socioeconomic impact on Alaska Natives, because international cultural exchange of polar bear handicrafts and clothing between Natives from Alaska and Natives from Russia, Canada and Greenland would be hampered or curtailed. It could also be more difficult for Alaska Natives to participate in subsistence uses as provided under ESA section 10(e), because, in the absence of an ESA rulemaking, they could have fewer options by which to contract for the tanning of polar bear hides, which are subsequently made into authentic articles of clothing or handicrafts by the subsisting Alaska Native. Moreover, by layering standard threatened species permitting requirements on top of existing MMPA and CITES provisions, this alternative would create administrative and legal burdens on the regulated public, industry, Alaska Natives, non-profit organizations and the Service.

- ***Alternative 3: 4(d) Special Rule with exemption from ESA incidental take prohibition for activities outside Alaska (May 2008 Interim Rule)***

This alternative is similar to the preferred alternative 2, in that it would also adopt the existing conservation regulatory requirements under the MMPA and CITES as the primary regulatory provisions for the polar bear. However, alternative 3 provides that

incidental take of polar bears resulting from activities that occur within the United States but *outside Alaska* is not prohibited under the ESA. Thus, the geographic range of the exemption from incidental take prohibitions under the ESA is the distinguishing factor between alternative 3 (exemption applies to activities “outside Alaska”) and the preferred alternative 2 (exemption applies to activities “outside the current range of the polar bear”).

This interim 4(d) special rule was in effect from the time the polar bear was listed as a threatened species (May 15, 2008) until January 15, 2009, and then has been in effect again since the U.S. District Court for the District of Columbia (DC District Court) vacated the Service’s final 4(d) special rule on November 21, 2011, and ordered that the interim 4(d) special rule be put back into effect. Thus, it represents the environmental and socioeconomic baseline upon which to measure the effects of any action.

Although alternatives 2 and 3 both provide similar benefits, the preferred alternative more precisely delineates the geographic range over which the ESA prohibition against incidental take is appropriate. Under paragraph (4) of the preferred alternative 2, incidental take of polar bears that results from activities within the current range of the polar bear is prohibited (in contrast to alternative 3, which prohibits incidental take that results from activities within Alaska). The geographic area specified within paragraph (4) of the preferred alternative includes land or water that is subject to the jurisdiction or sovereign rights of the United States (including portions of lands and inland waters of the United States, the territorial waters of the United States, and the United States’ Exclusive Economic Zone or the limits of the continental shelf) and the high seas. These areas of

ocean and ice that are north and west of Alaska are more important to the conservation of the polar bear than are the terrestrial environs of Alaska south of the polar bear's range.

- ***Alternative 4 (Proposed alternative except with no geographic areas exempted from Section 9 incidental take prohibitions)***. Similar to alternatives 2 and 3, this alternative adopts the existing conservation regulatory requirements under the MMPA and CITES as the appropriate regulatory provisions for the polar bear. However, unlike alternatives 2 and 3, alternative 4 does not contain a provision to expressly exempt any geographic areas from the prohibitions in §17.31 of the regulations implementing the ESA regarding incidental taking of polar bears. Thus, polar bears would be protected from incidental take under section 9 of the ESA, in addition to the protections already in place under MMPA and CITES, regardless of where the taking activity occurs within the United States, its territorial waters, or on the high seas.

Alternative 4 provides most of the same benefits as the preferred alternative. Arguably, alternative 4 might impose more of a socioeconomic burden on American society than the preferred alternative does, because activities outside the polar bear's range could be subjected to citizen suits under ESA Section 9. However, we would anticipate the increased burden to be negligible for the following reasons: (1) violations of the MMPA's incidental take provision would be still be subject to federal prosecution; (2) the requirements for consultation under section 7 apply to any federal actions in the United States, its territorial waters and the high seas that "may affect" polar bears; citizens retain authority to challenge inadequate consultations; and (3) the likelihood of citizen suits prevailing in establishing take of polar bears resulting from activities outside

polar bear range (preferred alternative) or Alaska (alternative 3) is remote based on current scientific information.

INTRODUCTION

On May 15, 2008, the Service published a final rule to list the polar bear as a threatened species (73 FR 28212; May 15, 2008) under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 et seq.). Concurrent with the listing rule, the Service issued an interim special rule (73 FR 28306; May 15, 2008) for the polar bear under section 4(d) of the ESA. In the interim 4(d) special rule, we opened a 60-day public comment period for all interested parties to submit comments that might contribute to the development of the final determination on the special rule. The interim 4(d) special rule with applicable modifications was finalized on December 16, 2008 (73 FR 76249).

The ESA does not specify particular prohibitions and exceptions to those prohibitions for threatened species. Instead, under section 4(d) of the ESA, the Secretary of the Department of the Interior (Secretary) was given the discretion to issue such regulations as he deems necessary and advisable to provide for the conservation of the species. In addition, the Secretary has the discretion to prohibit by regulation any act prohibited in section 9(a)(1) of the ESA. The Service has developed general prohibitions (50 CFR 17.31) and exceptions to those prohibitions (50 CFR 17.32) under the ESA that are applied to most threatened fish or wildlife species. That is, all prohibitions and exceptions for endangered wildlife provided under 50 CFR 17.21, with the

exception of 17.21(c)(5), are also extended to wildlife listed as “threatened” unless an alternate 4(d) special rule is crafted for a particular threatened species. Also, under 50 CFR 17.32, permits may be issued to allow persons to engage in otherwise prohibited acts for certain purposes.

Alternately, for other threatened species the Service develops specific prohibitions and exceptions that are tailored to the specific conservation needs of the species. In such cases, some of the prohibitions and authorizations under 50 CFR 17.31 and 17.32 may be appropriate for the species and incorporated into a special rule under section 4(d) of the ESA, but the special rule will also include provisions tailored to the specific conservation needs of the threatened species, which may be more or less restrictive than the general provisions at 50 CFR 17.31 and 17.32.

When listing the polar bear as a threatened species under the ESA on May 15, 2008, Secretary Kempthorne exercised his discretion under ESA section 4(d) to determine in a special rule those measures necessary and advisable for the conservation the polar bear. Secretary Kempthorne also selected to prohibit by regulation certain acts prohibited in section 9(a)(1) of the ESA.

Lawsuits challenging both the May 15, 2008, listing of the polar bear and the December 16, 2008, final 4(d) special rule for the polar bear were filed in various Federal district courts. These lawsuits were consolidated before the DC District Court.

On October 17, 2011, the DC District Court upheld all of the provisions of the special rule under the section 4(d) standards of the ESA but found the Service violated the National Environmental Policy Act (NEPA) and the Administrative Procedure Act (APA) by failing to conduct a NEPA analysis for its December 16, 2008, final 4(d) special rule for the polar bear. The DC District Court ordered that the final 4(d) special rule would be vacated and set aside pending resolution of a timetable for NEPA review. On November 18, 2011, the DC District Court resolved the schedule for NEPA review and vacated the December 16, 2008, final 4(d) special rule (*In Re*

Polar Bear Endangered Species Act Listing and § 4(d) Rule Litigation: Ctr. for Biological Diversity, et al. v. Salazar, et al., No. 08-2113; *Defenders of Wildlife v. U.S. Dep't of the Interior, et al.*, No. 09-153, Misc. No. 08-764 (EGS) MDL Docket No. 1993). In vacating and remanding to the Service the December 16, 2008, final 4(d) special rule for the polar bear (73 FR 76249), the DC District Court further ordered that, in its place, the interim 4(d) special rule for the polar bear published on May 15, 2008 (73 FR 28306) remain in effect until superseded by the new special rule for the polar bear to be published in the Federal Register.

When the polar bear was listed as a threatened species under the ESA on May 15, 2008, the ESA became the third law providing Federal protection and management for the species. Polar bears have been Federally protected since 1972 under the Marine Mammal Protection Act as amended (MMPA; 16 U.S.C. 1361 et seq.), and since 1975 under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES; 27 U.S.T. 1087) as an Appendix II species.

Both the December 2008 final and the now-active interim 4(d) special rules: (a) adopt the conservation regulatory requirements of the MMPA and CITES for the polar bear as the primary regulatory provisions; (b) clarify that the special rule does not alter the section 7 consultation requirements of Federal agencies under the ESA; and (c) apply the standard ESA regulatory provisions for threatened species when an activity is not covered by an MMPA or CITES authorization or exemption. The only difference is found in paragraph 4 of the special rules. Under the interim 4(d) special rule, incidental take is prohibited when caused by activities that occur on the high seas or within Alaska (incidental take caused by activities located within the United States but outside Alaska is excluded); under the December 2008 final 4(d) special rule, the ESA section 17.31 incidental take prohibition would apply to activities on the high seas or

within the current range of the polar bear (incidental take caused by activities located within the United States but outside the current range of the species is excluded).

This Environmental Assessment (EA) analyzes the environmental consequences of the Service's preferred alternative, of two other alternative special rules, and of having no special rule in place (the "No Action" alternative). A draft EA was released concurrently with our proposed 4(d) special rule on April 19, 2012, and both were available for a 60-day public comment period. The Draft EA identified alternative 2 as the Service's proposed alternative, but deferred making a definitive selection among alternatives until public comments could be received and considered. The Service carefully considered all of the comments we received, and our EA and final 4(d) special rule have been revised accordingly.

Organization of Document

The Service conducted its NEPA analysis consistent with the Court's order that the interim 4(d) special rule reinstated by court order "shall be" superseded by a new 4(d) special rule for the polar bear to be published in the Federal Register. Simply retaining the interim 4(d) special rule without any further consideration or rulemaking process was not an option. Thus, our "no action" alternative (alternative 1) consists of the absence of any 4(d) special rule and not the interim 4(d) rule originally published May 15, 2008, even though the interim rule is currently in place due to court order.

As the final 4(d) special rule has a relatively narrow application and scope, our NEPA analysis is likewise focused on narrow aspects of the environment potentially affected by the rule. This document focuses on the legal interplay between the ESA, MMPA and CITES, and the environmental and socio-economic impacts of this legal interplay. The Service found this

approach was the most straightforward and effective to fully examine all potential direct, indirect and cumulative effects of each alternative.

Among the impacts considered in this EA are those involving transboundary effects. On July 1, 1997, the Council on Environmental Quality issued a memorandum providing guidance on NEPA analyses for transboundary impacts, which states in part “that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.” Consistent with this memorandum, the Service considered management and conservation efforts in adjoining polar bear Range States and the reasonably foreseeable impacts that application of the general threatened species regulations or the various forms of a special rule might have on those efforts. These analyses appear in the Biological and Socioeconomic parts of the Environmental Consequences section.

PURPOSE AND NEED FOR THE ACTION

The Service had determined the need to develop a special rule under section 4(d) of the ESA to specify prohibitions and authorizations that are tailored to the specific conservation needs of the polar bear and to provide benefits to both polar bears and people that would not be readily available under the standard ESA regulatory provisions for threatened species.

The Service compared the protections the polar bear would receive under its standard ESA regulatory provisions for threatened species to the protections the polar bear was already receiving under the MMPA and CITES. It was determined that, for the most part, the MMPA and its implementing regulations already provided more protective measures than would be provided for the polar bear under the general ESA regulations at 50 CFR 17.31 and 17.32. The Service determined there are also a few elements of ESA provisions under 50 CFR 17.31 and

17.32 that are not congruent with certain provisions under the MMPA. Those differences could be addressed, to the benefit of both the public and the polar bear, with special rulemaking under section 4(d) of the ESA.

One need the Service identified was for Alaska Natives to retain the ability to engage in cultural exchange with Native inhabitants of Russia, Canada, and Greenland, with whom Alaska Natives share a common heritage. The MMPA allows the import and export of marine mammal parts and products that are components of a cultural exchange, which is defined under the MMPA as the sharing or exchange of ideas, information, gifts, clothing, or handicrafts. Cultural exchange has been an important exemption for Alaska Natives under the MMPA. However, under the provisions of the ESA, while Alaska Natives may continue to import some products, there is no similar provision for export, thus limiting their ability to engage in cultural exchanges. Also, because the exemptions under the ESA apply only to Alaska Natives, cultural exchanges as provided for under the MMPA with Native peoples of Canada, Greenland, and the Russian Federation would be limited, as Native peoples from these countries would be prohibited from bringing polar bear items into the United States without prior authorization.

The Service has determined that it was also necessary to align the ESA provisions with those of the MMPA to protect polar bears and people. In 1994, the MMPA was amended to provide an exception to otherwise prohibited acts, allowing the use of nonlethal, noninjurious measures that may deter a marine mammal from, among other things, damaging private property or endangering personal safety [16 U.S.C. 1371(a)(4)(A)(ii) and (iii), respectively]. A similar provision allows government employees to deter marine mammals from damaging public property. These acts of deterrence must not result in the death or serious injury of a marine mammal. Further, the Service recently codified guidelines (50 CFR 18.34) for the public that set

forth best practices for safely and non-lethally deterring polar bears from damaging private and public property and endangering the public. The Service had also been providing authorization under the MMPA for specified individuals to deter polar bears on an as-needed basis under sections 109(h) and 112(c) of the MMPA. The purpose of the authorization is to allow intentional take of polar bears by harassment to haze animals for the protection of both human life and polar bears. These measures have proven to be successful in preventing injury and death to both people and polar bears. A special rule is needed to allow nonlethal measures to deter polar bears to continue to operate under appropriate situations and therefore avoid interactions with people. Because prohibitions under the ESA include acts of harassment to endangered and threatened wildlife species, without a special rule such deterrence measures otherwise available to the public under the MMPA would no longer be allowed without the issuance of permits under the ESA. For example, a person following the Service's MMPA guidelines would no longer be protected from potential prosecution should the nonlethal taking of a polar bear occur consistent with the guidelines but without an ESA threatened species permit having also been issued. The standard ESA threatened species' regulations require advance authorization for nearly all take and calls for decisions on a case-by-case basis, but human-bear interactions evolve rapidly and are difficult to predict in advance.

The Service also considered the overlap between ESA and MMPA incidental take prohibitions and the potential for lawsuits brought under the ESA citizen-suit provision. The principal threat to the continued existence of the polar bear is a loss of habitat (sea ice) due to global climate change. Because greenhouse gases are an important contributor to global climate change, the Service recognizes that individual facilities that emit greenhouse gases might be subject to lawsuits brought under the citizen-suit provision of the ESA. The burden of proof for an ESA

incidental takings case is high. Thus any ESA incidental takings lawsuit regarding GHG emissions that might otherwise have been brought under the citizen suit provision is unlikely to succeed, and would thus divert limited Agency resources away from higher priority work. Further, the availability of other avenues to prohibit incidental take from GHG emissions means there is no conservation benefit to the ESA prohibition.

However, there are other activities that are known to or potentially may cause incidental take of polar bears. Within the species' range, there is a greater likelihood that a plaintiff will be able to establish a causal link between an activity and incidental take of one or more polar bears. For example, incidental take caused by noise, lights, visual disturbance, and emissions of toxins would have a more direct causal linkage in close proximity to polar bears. While it is possible that similar effects could occur from an activity located outside the species' range and then spread or transmit to an area within the species' range, this is less likely and becomes increasingly unlikely the farther the activity is located from the species' range. Hence, in previous versions of the 4(d) rule (alternatives 2 and 3), the Service sought to curtail potential administrative and legal burdens by exempting from the prohibitions of the ESA, incidental take from activities geographically distant from polar bears or their habitat. After public comment review and consideration, discussed below and in the Final Rule, the Service continues to prefer alternative 2, which provides that any incidental take of polar bears that results from activities that occur outside of the current range of the species is not a prohibited act under the ESA.

TRIBAL CONSULTATION AND PUBLIC INVOLVEMENT

Tribal Consultation

The Service is committed to fulfilling its Tribal consultation obligations, and strives to strengthen its government-to-government relationship with Alaska Native tribes. Although Court-ordered deadlines necessitated a relatively rapid EA process in this case, we resolved to consult with Alaska Native tribes and Alaska Native corporations within the range of the polar bear to acquire their input. We were unable to visit each community to hold face-to-face meetings regarding the assessment due to our compressed schedule, but letters and conference calls were used to communicate with potentially impacted tribes and Alaska Native corporations and gather their input. Appendix A provides a description of the consultation process we undertook with Alaska Native tribes and corporations, summarizes the input we received from Alaska Native tribes and corporations, and discusses how we incorporated that feedback into the EA.

Public Involvement

In our May 15, 2008 interim 4(d) special rule, we opened a 60-day public comment period for all interested parties to submit comments that might contribute to the development of a final determination on the 4(d) rule. The comment period closed on July 14, 2008. In response to the public comment period, the Service received approximately 29,700 comments on our interim 4(d) special rule. All comments were organized by theme, with responses provided in the final 4(d) special rule published in the Federal Register on December 16, 2008. Some changes and clarifications were made to the December 2008 final rule based on information and comments received during the public comment period. These consolidated comments and responses were reviewed and considered again during the preparation of this EA.

In the course of finalizing this EA and promulgating a special rule for the polar bear, the Service invited public comment on both the proposed rule and the draft EA. During the public comment period which ran from April 19, 2012 through June 18, 2012, we received 15 public comments on the proposed rule and draft EA as well as a number of submissions of refereed or other literature pertaining to those comments; the Service also received comment from the Marine Mammal Commission on August 3, 2012. In addition to the Marine Mammal Commission, the Service received comment from the State of Alaska, the Arctic Slope Regional Corporation, trade and environmental organizations, and the general public. These comments have been analyzed, and responses provided, in the final EA and final 4(d) special rule. A summary of and responses to public comments and recommendations related to the draft EA appears near the end of this EA.

Although the Service recognized that formal scoping would have been ideal given the general interest in polar bear conservation, no scoping was conducted for the following reasons: (1) the short timeframe associated with re-promulgating the rule; (2) through legal filings in the listing and 4(d) cases and the public comment process, the Service has gained a good understanding of many of the opinions and concerns of key stakeholders, and these were considered during the drafting of this EA; and (3) formal scoping is not required for EAs.

DESCRIPTION OF THE ALTERNATIVES UNDER CONSIDERATION

This chapter describes the alternative regulatory measures considered for a 4(d) special rule, which will specify the tailored protective measures for polar bear conservation under the ESA listing.

Alternative 1 – “No Action” Alternative

No 4(d) Special Rule

Under the no action alternative, no 4(d) special rule would be promulgated for polar bear conservation under the ESA. Thus, the general provisions for threatened wildlife provided under 50 CFR 17.31 and 17.32, which incorporate in large part the prohibitions and exceptions of 50 CFR 17.21 and for endangered species, would apply to the polar bear due to its “threatened” ESA listing status.

Unlike most “no action” alternatives described in NEPA analyses, this “no action” alternative would constitute a change from the physical, biological and socioeconomic status quo for polar bear conservation in Alaska, because the interim 4(d) special rule came into effect on the same day that the polar bear was listed as threatened under the ESA; therefore the full provisions for threatened wildlife provided under 50 CFR 17.31 and 17.32 that apply to a threatened species in the absence of a special rule have never been applied to the polar bear. Thus, implementation of the “no action” alternative would actually cause a shift from the environmental and socioeconomic baseline of the polar bear.

Alternative 2 – Preferred Alternative

4(d) Special Rule with exemption from ESA incidental take prohibition for activities outside polar bear range (December 2008 Final Rule)

This 4(d) special rule adopts the existing conservation provisions of the MMPA and CITES for the most part as the primary regulatory provisions for the polar bear. Nonetheless, if an activity is not authorized or exempted under the MMPA or CITES and would result in an act that would be otherwise prohibited under the general prohibitions under the ESA for threatened species (50

CFR 17.31), then the prohibitions at 50 CFR 17.31 apply, and we would require authorization under 50 CFR 17.32.

In addition, this special rule provides that any incidental take of polar bears resulting from an activity that occurs within the United States but *outside the current range of the polar bear* is not a prohibited act under the ESA. This special rule does not affect any existing requirements under the MMPA, including incidental take restrictions, or CITES, regardless of whether the activity occurs inside or outside the current range of the polar bear. Further, nothing in this special rule affects the consultation requirements under section 7 of the ESA.

Alternative 3

4(d) Special Rule with exemption from ESA incidental take prohibition for activities outside Alaska (May 2008 Interim Rule)

This alternative is similar to alternative 2, in that both versions of the special rule adopt for the most part the existing conservation regulatory requirements under the MMPA and CITES as the primary regulatory provisions for the polar bear.

There is only one substantive difference between alternatives 2 and 3. The interim 4(d) special rule constituting alternative 3 provides that any incidental take of polar bears resulting from activities that occur within the United States but *outside Alaska* is not a prohibited act under the ESA. Thus, the geographic range of incidental take exemption under the ESA is the distinguishing factor between alternative 3 (exemption applies to activities within the United States but “outside Alaska”) and alternative 2 (exemption applies to activities within the United States but “outside the current range of the polar bear”).

This interim 4(d) special rule was in effect from May 15, 2008, when the polar bear was listed as a threatened species, until January 15, 2009 when it was replaced by the final 4(d) rule, and has been in effect again since the Court vacated the Service’s final 4(d) special rule on November 21, 2011. Thus, it represents the environmental and socioeconomic baseline upon which to measure the effects of taking any action.

Alternative 4

4(d) Special Rule with no geographic exemption from ESA incidental take prohibitions

This alternative is similar to alternatives 2 and 3. All three versions of the special rule (i.e., alternatives 2, 3, and 4) adopt for the most part the existing conservation regulatory requirements under the MMPA and CITES as the primary regulatory provisions for the polar bear.

Unlike alternatives 2 and 3, however, alternative 4 does not contain a provision for any geographically-based exemption from ESA incidental take prohibitions.

Table 1. Summary of Actions by Alternative		
Alternative	Regulatory Framework for polar bear	Geographic Area of Exemption from ESA Incidental Take Prohibition
1 - “No Action” alternative – No 4(d) Rule	ESA regulations at 50 CFR 17.31 and 17.32, MMPA and CITES	None
2 – Preferred Alternative - (December 2008 Final Rule - (December 16, 2008; 73 FR 76249)	MMPA and CITES (with 50 CFR 17.31 and 17.32 for any activity not authorized or exempt under MMPA or CITES)	Within the U.S. but outside current range of the polar bear

3 - May 2008 Interim Rule (May 15, 2008; 73 FR 28306)	MMPA and CITES (with 50 CFR 17.31 and 17.32 for any activity not authorized or exempt under MMPA or CITES)	Within the U.S. but outside Alaska
4 – Special Rule similar to Alt. 2 but with no geographic exemption from ESA incidental take prohibitions	MMPA and CITES (with 50 CFR 17.31 and 17.32 for any activity not authorized or exempt under MMPA or CITES)	None

AFFECTED ENVIRONMENT

Physical Environment

The physical environment associated with this EA consists of the geographic, oceanographic, and climatic factors important for polar bear habitat, as well as the chemical constituents in the ambient environment to which polar bears are exposed.

The regional climate of polar bear habitat west and north of Alaska is typical of the Arctic zone, where weather extremes are common and climate influences the geographic features (Truett and Johnson, 2000). Summers are short in duration, with continuous daylight, where average summer temperatures range between 5 to 15°C. During the summer the ground thaws to a depth of 30 - 40 cm, and the landscape is dominated by wetlands. Winters are dark and cold, and last 8 to 9 months. Average winter temperatures range between -20 and -60°C in January (Truett and Johnson, 2000). Annual precipitation is low and averages 13 – 18 cm, usually in the form of snow (Truett and Johnson, 2000). Surface winds are common throughout the year and result in wind chill factors well below the actual temperature.

The arctic Alaskan ocean environment can be divided into three separate dynamic conditions based upon seasonal variations:

Summer (open water). The open-water season usually begins in late June and is characterized by warming temperatures and stream runoff. The shore-fast ice melts and the pack ice recedes northward, resulting in an area of open water along the coast. By mid-July, much of the lagoon and open-shelf area is ice-free. The extent of open water along the coast varies from year to year depending upon climatic factors, but it reaches its fullest extent in August/September.

Broken ice. The broken ice period is that time the sea transitions from ice-covered to open water (break-up) and from open-water to ice-covered (freeze-up). These periods usually occur in June and October, respectively.

Winter (ice covered). Winter conditions in the Beaufort and Chukchi Sea begin with freeze-up and an increase in the amount of sea ice. The ice reaches a maximum thickness of approximately 2 m by March/April. There are considerable variations from year to year, and the edge of the pack ice in September ranges from about 12 to 66 miles offshore (Labelle et al., 1983). In recent years, however, the sea ice has exhibited record lows in sea ice extent (National Snow and Ice Data Center, 2012), where it forms later in the fall and retreats earlier in the summer (Rigor and Wallace, 2004). From November through May, ice covers nearly all of the Beaufort and Chukchi seas. The winter sea-ice regime can be divided into three distinct zones: landfast-ice, shear, and pack ice.

Landfast-ice. The landfast-ice zone extends from the shore out to the zone of grounded ridges. These ridges first form in about 24 to 45 feet of water, but by late winter may extend to deeper water. Wind and water stress on floating sheets of ice results in deformation and

displacement of ice. Ice deformations take the form of ridges and rubble fields. As winter progresses, displacements and deformations decrease because the ice in the landfast zone thickens and strengthens, and becomes more resistant to movement.

Shear. Seaward of the landfast ice zone is the shear zone. The shear zone, as the name indicates, is a region of dynamic interaction between the stable landfast ice and the moving ice of the pack ice zone. This interaction in the shear zone results in the formation of ridges and leads. Leads are channels of open water through areas of ice, which provide habitat for marine mammals.

Pack ice. The pack ice zone lies seaward of the shear zone, and includes both first-year ice and multi-year ice. The first-year ice that forms in the fractures, leads, and polynyas (large areas of open water) varies in thickness from less than one inch to greater than a few feet. Multi-year ice is ice that has persisted for more than a year.

The violent interactions between ice zones create deformed ice, known as ice ridges. These ridges are usually about 3 to 6 feet in height, but may reach heights of 20 feet.

A more detailed description of the physical attributes of the Beaufort and Chukchi seas are described in the Beaufort Sea and Chukchi Sea Planning Areas, Oil and Gas Lease Sales 209, 212, 217, and 221 Draft EIS

(http://www.alaska.boemre.gov/ref/EIS%20EA/ArcticMultiSale_209/2008_0055_deis/vol1.pdf:

pp. 3-12 to 3-52) and the Chukchi Sea Final Supplemental EIS, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193

(http://www.alaska.boemre.gov/ref/EIS%20EA/2011_041_FSEIS/FSEISv1a.pdf; pp. 45-52).

Climate Change

When the polar bear was listed as threatened under the ESA (73 FR 28212, May 15, 2008), the primary factor cited as a threat to the species was that polar bear habitat – principally sea ice – is declining throughout the species’ range, and that this decline is expected to continue for the foreseeable future. Polar bears depend on sea ice for a number of purposes, including as a platform from which to hunt and feed upon seals; as habitat on which to seek mates and breed; as a platform to move to terrestrial denning areas, and sometimes for maternity denning; and as a substrate on which to make long-distance movements. The listing rule details the dramatic decreases in Arctic sea ice that have been occurring over the last several decades, and that are forecasted to continue in the years to come. The rule’s preamble attributes the observed declines in sea ice to three main factors: warming of air and sea temperatures, atmospheric changes, and changes in ocean circulation. Greenhouse gases are cited as an important contributor to Arctic sea ice declines. The Service does recognize, and on many fronts is working to address or minimize, the effects of climate change on polar bears.

Chemicals in the Arctic Environment

The presence of contaminants in polar bears and their habitat, and the biological implications of those contaminants, were outlined in the ESA Listing document (73 FR 28212, pages 28288 – 28292, May 15, 2008). Even in areas where point sources of contaminants are absent, globally distributed contaminants such as persistent organic pollutants (POPs) and mercury are present in marine food chains. POPs and methylmercury biomagnify in aquatic food chains, and can reach high levels in top predators including polar bears. Contaminant concentrations are not presently thought to have population-level effects on most polar bear populations. However, increased

exposure to contaminants has the potential to operate in concert with other factors, such as nutritional stress from loss or degradation of sea ice habitat, decreased prey availability and accessibility, or lower recruitment and survival rates. These combined stressors could ultimately have negative population-level effects on polar bears.

Biological Environment

The biological environment associated with this EA includes polar bears from the Southern Beaufort and Chukchi-Bering Seas' stocks.

Stock Definition and Range

Polar bears occur throughout the Arctic. The world population estimate of polar bears ranges from 20,000–25,000 individuals. In Alaska, they have been observed as far south in the eastern Bering Sea as St. Matthew Island and the Pribilof Islands (Ray, 1971). However, in the United States, they are most commonly found within 180 miles of the Alaskan coast of the Chukchi and Beaufort Seas, from the Bering Strait to the Canadian border. Two stocks occur in Alaska: (1) the Chukchi-Bering Seas' stock (CS); and (2) the Southern Beaufort Sea stock (SBS). A summary of the CS and SBS polar bear stocks are described below. A detailed description of the CS and SBS polar bear stocks can be found in the, "Range-Wide Status Review of the Polar Bear (*Ursus maritimus*)" at http://alaska.fws.gov/fisheries/mmm/stock/final_sbs_polar_bear_sar.pdf and http://alaska.fws.gov/fisheries/mmm/stock/final_cbs_polar_bear_sar.pdf.

Southern Beaufort Sea stock (SBS) - The SBS polar bear population is shared between Canada and Alaska. Radio-telemetry data, combined with earlier tag returns from harvested bears, suggest that the SBS region is comprised of a single population with a western boundary near Icy

Cape, Alaska, and an eastern boundary near Pearce Point, Northwest Territories, Canada. Early estimates from the mid-1980s suggested the size of the SBS population was approximately 1,800 polar bears, although uneven sampling was known to compromise the accuracy of that estimate. A population analysis of the SBS stock was completed in June 2006 through joint research coordinated between the United States and Canada (Regehr et al., 2006). That analysis indicated the population of the region between Icy Cape, Alaska, and Pearce Point, Canada, is now approximately 1,500 polar bears (95% confidence intervals approximately 1,000–2,000). Although the confidence intervals of the current population estimate overlap the previous population estimate of 1,800, other statistical and ecological evidence (e.g., high recapture rates encountered in the field) suggest that the current population is actually smaller than has been estimated for this area in the past.

Additionally, recent analyses of radio-telemetry data of spatial-temporal use patterns of bears of the SBS stock using new spatial modelling techniques suggest realignment of the boundaries of the Southern Beaufort Sea area. We now know that nearly all bears in the central coastal region of the Beaufort Sea are from the SBS population, and that proportional representation of SBS bears decreases to both the west and east. For example, only 50% of the bears occurring in Barrow, Alaska, and Tuktoyaktuk, Northwest Territories, Canada, are SBS bears, with the remainder being from the CS and Northern Beaufort Sea populations, respectively. The recent radio-telemetry data indicate that bears from the SBS population seldom reach Pearce Point, Canada, which is currently on the eastern management boundary for the SBS population. Conversely, SBS bears can also be found in the western regions of their range in the Chukchi Sea (i.e., Wainwright and Point Lay, Alaska) in lower proportions than the central portion of their range.

Chukchi/Bering Seas stock (CS) – The CS is defined as those polar bears inhabiting the area as far west as the eastern portion of the Eastern Siberian Sea, Russia Federation, as far east as Point Barrow, Alaska, and extending into the Bering Sea, with its southern boundary determined by the extent of annual ice. Based upon telemetry studies, the western boundary of the population has been set near Chaunskaya Bay in northeastern Russia Federation. The eastern boundary is at Icy Cape, Alaska, which also is the previous western boundary of the SBS. This eastern boundary constitutes a large overlap zone with bears in the SBS population. The status of the CS population, which was believed to have increased after the level of harvest in the United States was reduced in 1972, subsequent to passage of the MMPA, is now thought to be uncertain or declining. The most recent population estimate for the CS population is 2,000 animals. This was based on extrapolation of aerial den surveys from the early 1990s. This crude estimate is currently considered to be of little value for management. Reliable estimates of population size based upon mark and recapture studies are not available for this region, and measuring the population size remains a research challenge (Evans et al., 2003).

Habitat

Polar bears evolved for life in the arctic, and are distributed throughout most ice-covered seas of the Northern Hemisphere. They are generally limited to areas where the sea is ice-covered for much of the year; however, polar bears are not evenly distributed throughout their range. They are most abundant near the shore in shallow-water areas, and in other areas where currents and ocean upwelling increase marine productivity and maintain some open water during the ice-covered season. Over most of their range, polar bears remain on the sea ice year-round, or spend only short periods on land.

The Service designated critical habitat for polar bear populations in the United States effective January 6, 2011 (75 FR 76086; December 7, 2010). Subsequent to this designation, a number of parties, including the State of Alaska, the Alaska Oil and Gas Association, and others, challenged the December 7, 2010, final rule in Federal Court, and, on January 11, 2013, the District Court for the District of Alaska, issued an order vacating and remanding to the Service this rule. Therefore we provide a brief description of the benefits of critical habitat which include: identification of geographic areas that contain features essential for the conservation of a threatened or endangered species, and that may require special management or protection and requires Federal agencies that undertake, fund, or permit activities that may affect critical habitat are required to consult with the Service, to ensure that such actions are not likely to adversely modify or destroy critical habitat. However we note that the designation of critical habitat under the ESA does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area.

Denning and Reproduction

Females without dependent cubs breed in the spring. Females can initiate breeding at 5 to 6 years of age. Females with cubs do not mate. Pregnant females enter maternity dens by late November, and the young are usually born in late December or early January. Only pregnant females den for an extended period during the winter; other polar bears may excavate temporary dens to escape harsh winter winds. An average of two cubs is born. Reproductive potential (intrinsic rate of increase) is low. The average reproductive interval for a polar bear is 3 to 4 years, and a female polar bear can produce about 8 to 10 cubs in her lifetime. In healthy populations, 50% to 60% of the cubs will survive. Female bears can be quite sensitive to disturbance during the denning period.

In late March or early April, the female and cubs emerge from the den. If the mother moves young cubs from the den before they can walk or withstand the cold, mortality of the cubs may result. Therefore, it is thought that successful denning, birthing, and rearing activities require a relatively undisturbed environment. Radio and satellite telemetry studies elsewhere indicate that denning can occur in multi-year pack ice and on land. Recent studies of the SBS indicate that the proportion of dens on pack ice have declined from approximately 60% in 1985-1994 to 40% in 1998-2004.

In northern Alaska, maternal polar bear dens appear to be less concentrated than in Canada to the east and in Russia to the west. In Alaska, certain areas, such as barrier islands (linear features of low-elevation land adjacent to the main coastline that are separated from the mainland by bodies of water), river bank drainages, much of the North Slope coastal plain, and coastal bluffs that occur at the interface of mainland and marine habitat, receive proportionally greater use for denning than other areas by bears from the SBS stock (Durner et al., 2003; Durner et al., 2006). Maternal denning occurs on tundra-bearing barrier islands along the Beaufort Sea and also in the large river deltas, such as the Colville and Canning Rivers. Denning of bears from the CS stock occurs primarily on Wrangel and Herald Islands, and on the Chukotka coast in the Russian Federation.

Prey

Ringed seals (*Pusa hispida*) are the primary prey of polar bears in most areas. Bearded seals (*Erignathus barbatus*) are also common prey. Pacific walrus (*Odobenus rosmarus divergens*) calves are hunted occasionally, and walrus carcasses are scavenged at haulouts where trampling occurs. Polar bears will occasionally feed on bowhead whale (*Balaena mysticetus*) carcasses at

Point Barrow, Cross, and Barter islands, which are areas where bowhead whales are harvested for subsistence purposes. There are also reports of polar bears killing beluga whales (*Delphinapterus leucas*) trapped in the ice.

Polar bears use the sea ice as a platform to hunt seals, using various strategies. They can hunt along leads and other areas of open water, by waiting at a breathing hole, or by breaking through the roof of a seal lair; seal lairs are excavated in snow drifts on top of the ice. Bears also stalk seals in the spring, when the seals haul out on the ice during warm weather.

The relationship between ice type and polar bear distribution is as yet unknown, but it is suspected to be related to seal availability. Due to changing sea ice conditions, the area of open water and proportion of marginal ice has increased and extends later in the fall. This may limit seal availability to polar bears, as the most productive areas for seals appear to be over the shallower waters of the continental shelf.

Mortality

Polar bears are long-lived (up to 30 years), have no natural predators, and do not appear prone to death by diseases or parasites. Cannibalism by adult males on cubs and occasionally on other bears is known to occur. The most significant source of mortality is man. Before the MMPA was passed in 1972, polar bears were taken in the United States by sport hunters and residents. Between 1925 and 1972, the mean reported kill was 186 bears per year. Seventy-five percent of hunter-killed bears during that time period were males, as cubs and females with cubs were protected. Since 1972, in the United States only Alaska Natives from coastal Alaskan villages have been allowed to hunt polar bears for their subsistence uses, including production of handicraft and clothing for sale. As discussed below, the Alaska Native subsistence hunt is

regulated through cooperation with Canada in the SBS, and through the harvest management regime established under the Bilateral Agreement for the CS stock. Monitoring of the U.S. harvest indicated that from 1980 to 2005, the total annual harvest in Alaska averaged 101 bears: 64% from the Chukchi Sea and 36% from the Beaufort Sea. Other sources of mortality related to human activities include bears killed during research activities, euthanasia of sick or injured bears, and defense of life kills by non-Natives (Brower et al., 2002). Research-related kills and euthanasia are very rare sources of mortality. Additionally, and while extremely rare, the activities of the oil and gas industry in Alaska have resulted in the death of a polar bear.

Distribution and Abundance in the Beaufort Sea

Polar bears are dependent upon the sea ice for foraging, and the most productive areas seem to be near the ice edge, leads, or polynyas where the ocean depth is minimal (Durner et al., 2004).

Polar bears can also be observed throughout the year in the onshore and nearshore environments, where they will opportunistically scavenge on marine mammal carcasses washed up along the shoreline (Kalxdorff and Fischbach, 1998). Their distribution in the coastal habitat can be influenced by the movement of seasonal pack ice.

During the ice-covered season between late October and mid-April, pregnant females can use terrestrial denning habitat. The percentage of pregnant females using terrestrial habitat for denning is unknown, but the proportion of dens on terrestrial habitat has increased in recent years. In addition, a small proportion of bears of different cohorts may be found along the coastline during the ice-covered season. During the open water season (July through September) a small proportion of bears will utilize the coastal environments, while the majority of the population will be on the edge of the pack ice.

Throughout the late summer/fall period (August through October) polar bears are most likely to be encountered along the mainland coastline and barrier islands; bears use these areas as travel corridors and as platforms for hunting. Based on industry observations, encounter rates are higher during the fall (August to October) than during any other time period (76 FR 47010; August 3, 2011). The duration bears spend in these coastal habitats depends on storm events, ice conditions, and the formation of annual ice. In recent years, more polar bears have been observed on land and in open water habitats along the SBS coast than on the sea ice during the fall (Gleason and Rode, 2009). Based on industry observations and coastal survey data acquired by the Service from 2000 to present, up to approximately 125 bears from the SBS stock have been observed between Barrow and the Alaska-Canada border during the fall period (76 FR 47010; August 3, 2011).

Distribution and Abundance in the Chukchi Sea

Polar bears are seasonably abundant in the Chukchi Sea, and their distribution is influenced by the movement of the seasonal pack ice. Polar bears in the Chukchi and Bering seas move south with the advancing ice during fall and winter, and move north in advance of the receding ice in late spring and early summer (Garner et al., 1990). The distance between the northern and southern extremes of the seasonal pack ice is approximately 1,300 km (800 mi). In May and June, polar bears are likely to be encountered over continental shelf waters associated with ice as they move northward from the northern Bering Sea, through the Bering Strait into the southern Chukchi Sea. During the fall/early winter period polar bears are likely to be encountered in the Chukchi Sea during their southward migration in late October and November. Polar bears are dependent upon the sea ice for foraging, and the most productive areas seem to be near the ice edge, leads, or polynas where the ocean depth is minimal (Durner et al. 2004). In addition, polar

bears could be present along the shoreline in this area as they will opportunistically scavenge on marine mammal carcasses washed up along the shoreline (Kalxdorff and Fischbach 1998).

Potential threats to polar bear survival

Management and conservation concerns for the SBS and CS polar bear populations include the following stressors: (1) climate change, which continues to increase both the expanse and duration of open water in summer and fall; (2) human activities within the near-shore environment, including oil and gas activities; (3) atmospheric and oceanic transport of contaminants into the Arctic; and (4) the potential for inadvertent over-harvest, should polar bear stocks become nutritionally stressed or decline due to some combination of the afore mentioned threats.

The polar bear was listed as a threatened species under the ESA on May 15, 2008 due to loss of sea ice habitat caused by climate change (73 FR 28212). Additional stressors evaluated during the listing process included impacts from activities such as industrial operations, subsistence harvest, contaminants, shipping and tourism. None of these factors were considered significant threats to the polar bear in comparison to sea ice loss, but minimizing effects from these activities could become increasingly important as polar bears face potential increasing impacts associated with habitat loss.

More information can be found at: <http://www.fws.gov/> and <http://alaska.fws.gov/fisheries/mmm/polarbear/pbmain.htm>

Socio-Economic Environment

Polar bears are harvested by Alaska Natives for subsistence and handicraft purposes. This species plays an important role in the culture and economy of many villages throughout western and northern coastal Alaska, where the polar bear figures prominently in Alaska Native stories, art, traditions, and cultural activities. In these northern and western coastal Alaskan Native villages, the taking and use of the polar bear is a fundamental part of Alaska Native culture. For Alaska Natives engaged in subsistence uses, the very acts of hunting, fishing and gathering, coupled with the seasonal cycle of these activities and the sharing and celebrations that accompany them, are intricately woven into the fabric of their social, psychological and religious life (Pungowiyi, 2000).

Polar bears are hunted primarily for their fur, which is used to manufacture cold weather clothing and a wide variety of handicrafts. Alaska Natives sew parkas, hats, gloves, and footgear to keep them warm, and they make carvings and decorations for their homes, as gifts for their friends and relatives, or to supplement their income. The meat of the polar bear is also sometimes consumed.

The sale of handmade clothing and handicrafts made of polar bear parts is an important source of income in these remote Alaska Native villages. Fundamentally, the production of handicrafts is not a commercial activity, but rather a continuation and adaptation to a market economy of an ancient Alaska Native tradition of making and then bartering handicrafts and clothing for other needed items. The limited cash that Alaska Native villagers can make from handmade clothing and handicrafts is vital to sustain their subsistence hunting and fishing way of life (Pungowiyi, 2000).

An exemption under section 101(b) of the MMPA allows Alaska Natives who reside in Alaska and dwell on the coast of the North Pacific Ocean or the Arctic Ocean to harvest polar bears, if such harvest is for subsistence purposes or for purposes of creating and selling authentic Native articles of handicrafts and clothing, as long as the harvest is not done in a wasteful manner.

Similarly, section 10(e) of the ESA provides an exemption for any Indian, Aleut, or Eskimo who is an Alaskan Native and who resides in Alaska to take a threatened or endangered species if such taking is primarily for subsistence purposes and the taking is not accomplished in a wasteful manner. However, because of the more stringent requirements of the MMPA, and the deference section 17 of the ESA affords the MMPA, only coastal dwelling Alaska Natives may partake in subsistence hunts of the polar bear. Similarly, non-Native permanent residents of an Alaska Native village are also covered by this ESA exemption, but since such persons are not covered by the similar exemption under the MMPA, take of polar bears for subsistence purposes by non-Native permanent residents of an Alaskan Native village is not lawful.

The Alaska Nanuuq Commission (ANC) was formed in 1994 to represent the villages in North and Northwest Alaska on matters concerning the conservation and sustainable subsistence use of the polar bear. The mission of ANC is to “conserve Nanuuq and the Arctic ecosystem for present and future generations of Arctic Alaska Natives”. The tribal council of each member village has authorized the ANC to represent them on matters concerning the polar bear at regional and international levels. Fifteen villages are currently members: Barrow, Wainwright, Kotzebue, Nuiqsut, Savoonga, Kaktovik, Point Lay, Point Hope, Brevig Mission, Shishmaref, Gambell, King Island, Wales, Little Diomedede, and Kivalina.

Polar Bear Harvest Patterns in Alaska

In Alaska, only a subsistence or handicraft harvest conducted by Alaska Natives is allowed. Six communities (Barrow, Point Hope, Savoonga, Gambell, Diomedes, and Wainwright) harvest 80% of all polar bears harvested in Alaska. Average polar bear harvest levels in Alaska have remained relatively stable over the past 20 years in the Southern Beaufort Sea, but have declined in the Chukchi/Bering Seas. The reason for the decline in harvest in western Alaska is unknown, but could be a result of reduced hunter effort, changing distribution of bears, and/or a decline in the number of bears in the population.

Polar bears are harvested throughout the calendar year, depending on availability. Hunters in western Alaska, from Point Lay to St. Lawrence Island, typically harvest bears after December, since bears moving southward with advancing pack ice are not available in this area until later in the season. Since the 1980s, significantly more bears have been harvested in the fall (October – December) in the Southern Beaufort Sea than in the Chukchi/Bering Seas.

The Service collects information on the subsistence harvest of polar bears in Alaska through the Marking, Tagging and Reporting Program (MTRP). The program is administered through a network of MTRP “taggers” employed in subsistence hunting communities. The marking and tagging rule requires that hunters report harvested polar bears to MTRP taggers within 30 days of the harvest. Taggers also certify (tag) polar bear skulls to help control illegal take and trade. Reporting rates can be improved, but since 1980 approximately 85% of polar bears harvested in Alaska have been accounted for in the harvest records (Service, unpublished data). However, harvest reports often do not contain all required harvest information, such as skull measurements and premolar teeth (personal communication from John Trent, MTRP, 2/10/2012). The Service is currently working to improve compliance of harvest reporting and the completeness of information received for harvested bears.

Harvest Management of Polar Bears in Alaska

The Service works through existing co-management agreements with Alaska Natives to address future actions that affect polar bears and polar bear hunting. This includes working with the ANC (statewide), the North Slope Borough and its Native-to-Native Agreement with the Inuvialuit Game Council of Canada (Beaufort Sea region), and the Joint Commission formed with Russia under the *Agreement Between the Government of the United States of America and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population* (Bilateral Agreement) (Chukchi/Bering Seas region).

On May 8, 2008, Secretary of the Interior Kempthorne and John Baird, Minister of the Environment Canada, signed a Memorandum of Understanding for the Conservation and Management of Shared Polar Bear Populations (MOU). The purpose of the MOU is to facilitate and enhance coordination and cooperation regarding the conservation and management of polar bears, and to provide a framework for the development and implementation of mutually agreeable actions that focus on specific components of polar bear conservation. The MOU establishes a Bilateral Oversight Group (BOG) comprised of Federal, State/Territorial, and Aboriginal representatives.

Since 2008, the BOG has met and discussed a number of conservation and management priorities for the polar bear including: 1) status of on-going research in the two countries; 2) individual protections afforded polar bears under respective domestic laws as well as CITES; 3) incorporating Traditional Ecological Knowledge into management actions; 4) outreach and education; and 5) a need to leverage rather than duplicate existing polar bear coordination and management efforts between agency and aboriginal people of both countries.

For example, the subsistence harvest of the Southern Beaufort Sea population has been actively managed under the voluntary Inupiat/Inuvialuit (Canada) Agreement since 1988. Polar bears harvested from the communities of Barrow, Nuiqsut, Kaktovik, Wainwright, and Atkasuk are currently considered part of the SBS stock and thus are subject to the terms of the *Inuvialuit-Inupiat Polar Bear Management Agreement* (Inuvialuit-Inupiat Agreement).

The Inuvialuit-Inupiat Agreement establishes quotas and recommendations concerning protection of denning females, family groups, and methods of harvest. Under the Inuvialuit-Inupiat Agreement, quotas are recommended by technical advisors on the basis of estimates of population size and age-specific estimates of survival and recruitment. The current quota of 70 total bears per year was established in July 2010, and represents a decrease from the previous quota of 80 total bears per year (Brower et al. 2002). The quota is allocated to Canadian Inuvialuit and to Alaskan Inupiat, with 35 bears each. The Inuvialuit-Inupiat Agreement and its quotas are voluntary between the Inupiat and Inuvialuit, and are not enforceable by any law or authority of the governments of the United States or Canada. Although adherence to the quota is voluntary in the United States, it has generally been followed since implementation of the Inuvialuit-Inupiat Agreement (Brower et al. 2002).

Until recently, the United States and Russia have managed the shared CS polar bear population independently. Now, the U.S and Russia are working jointly to manage and better understand polar bears in the CS stock. On September 21, 2007, the United States ratified the Bilateral Agreement which was signed in Washington, D.C., on October 16, 2000. The purpose of the Bilateral Agreement is to improve polar bear conservation, and to safeguard the cultural and traditional use of polar bears by Native peoples. The Bilateral Agreement identifies the active involvement of Native people and their organizations in the management of this polar bear

population. The U.S.–Russia Polar Bear Commission (Commission), which functions as the bilateral managing authority, consists of a Native and Federal representative of each country. The Commission is advised by a 16-member scientific working group, including experts on ice habitat, bear ecology and population dynamics, and traditional ecological knowledge. At a meeting of the Commission from June 7–10, 2010, in Anchorage, Alaska, the Commission determined that no more than 58 polar bears per year may be taken from the Alaska–Chukotka polar bear population, of which no more than 19 animals (one third) may be females. The quota is to be split evenly between Native subsistence hunters in Alaska and Chukotka, Russia. Further, the Commission determined that the two countries will work together to identify legal requirements and documents needed to implement the determined subsistence harvest limit, and that further discussion regarding implementation of harvest management plans would take place at the next Commission meeting in 2011. At the Commission meeting in July 2011, the Commission, based on recommendations from its Scientific Working Group approved a recommendation that a multi-year quota system be introduced for an initial period of five years, consistent with the terms of the Bilateral Agreement. The most recent Commission meeting in June 2012 again focused on implementation through seasonal aspects of annual take limits. This cooperative management regime for the subsistence harvest of bears is key to both providing for the long-term viability of the population as well as addressing the social, cultural, and subsistence interests of Alaska Natives and the Native people of Chukotka.

Other Socio-Economic Activities

Development

The developed area of the North Slope oil fields, such as the Prudhoe Bay oil field and its satellites, is located on the central Beaufort Sea coast in Alaska. The developed area comprises

the largest oil-producing area in North America, with a recent production of approximately 500,000 barrels per day and a total reserve of approximately 25 billion barrels. Over a dozen oil companies and a multitude of support companies operate in the North Slope oil fields. Offshore production sites, the major concern regarding polar bears, include the Endicott, Northstar, Spy Island, and Oooguruk facilities. Current and anticipated Outer Continental Shelf lease sales by the Bureau of Ocean Energy Management (BOEM) make continued offshore development likely through the mid-21st century (<http://www.boem.gov/5-year/2012-2017/>). Recent studies to evaluate and mitigate potential impacts of oil and gas activities on polar bears include hypothetical oil spill assessments (Amstrup et al., 2006), mapping of maternal denning habitat in areas likely to experience hydrocarbon development (Durner et al. 2006), the development of methods to detect maternal dens, using tools such as Forward Looking Infrared (FLIR) imagery and scent-trained dogs (Shideler and Perham, 2008; Shideler and Perham, 2009), and evaluations of post-den emergence behavior and sensitivity to disturbance (Smith, 2007).

Affiliates of the oil and gas industry have requested, and we have issued, regulations since 1991 for incidental take authorization for activities in occupied polar bear habitat. Such incidental take can only be authorized if it will have no more than a negligible effect on the species or stock, the take involves only small numbers of the marine mammal, and the incidental take will not have an unmitigable adverse impact on take for subsistence uses. The Service issues incidental take authorization under section 101(a)(5) of the MMPA. Currently, the oil and gas industry has been the only entity to request incidental take authorization for polar bears. For authorizations issued under section 101(a)(5)(A) of the MMPA, the Service administers the Incidental Take Program through Letters of Authorization (LOAs) that enable us to work cooperatively with oil and gas operators to minimize impacts of their activities on polar bears,

and to ensure that activities have no more than a negligible impact on the subpopulation. The Service evaluates requests for LOAs with special attention to mitigating impacts to polar bears, such as limiting industrial activities around barrier island habitat, which is important for polar bear denning, feeding, resting, and seasonal movements.

Incidental take regulations (ITRs) have been issued since 1993 in the Beaufort Sea. Similarly, the Service has issued ITRs and Incidental Harassment Authorizations (IHAs) for certain activities associated with oil and gas exploration and development in the Chukchi Sea beginning in 1991. The ITRs typically extend for a five-year period; the current regulatory period for the Beaufort Sea is 2011 to 2016 and for the Chukchi Sea is 2008 to 2013. The five-year regulatory duration is to allow the Service (with public review) to periodically assess whether the anticipated level of take continues to have no more than a negligible impact on polar bears and will not have an unmitigable adverse impact on their availability for subsistence uses.

The Service also issues intentional take authorizations under sections 109(h) and 112(c) of the MMPA, which allow people to take polar bears by harassment using non-lethal, non-injurious deterrence measures in order to protect both human life and polar bears while conducting activities in polar bear habitat. The Service provides guidance and training regarding the appropriate harassment response necessary for polar bears. Intentional take authorizations have been issued to the oil and gas industry, the mining industry, the North Slope Borough, scientific researchers, and the military. These MMPA-specific authorizations have been successful at protecting both communities and polar bears for many years.

Tourism

Other socio-economic activity centered on polar bears, such as ecotourism or wildlife viewing (predominantly for polar bears), has been increasing in Alaska, particularly within the Federally managed Arctic National Wildlife Refuge, as well as on non-Federal lands near the Native communities of Barrow and Kaktovik. To date, polar bear-related tourism has been occurring at a relatively low level with little Federal oversight or consistency among guiding companies. In 2009, the Service initiated development of guidelines for commercial polar bear viewing within its Refuge lands and waters; these guidelines are being implemented through the refuge permit process as of 2010. Additionally, the Service has been working with local communities, air taxi operators, and guiding companies to develop similar community-based viewing guidelines for non-Federal lands, to ensure that activities remain both legal (e.g., no harassment of bears) and safe for residents, visitors, and polar bears.

ENVIRONMENTAL CONSEQUENCES

This section describes and analyzes the anticipated environmental consequences of implementing each alternative on the resources described in the Affected Environment section. It also presents the scientific and analytical basis for comparison of alternatives (see Table 2).

Physical Environment

The principal threat to the continued existence of the polar bear is a loss of habitat (sea ice) due to global climate change. If, in the future, improved technologies enable the causal connection of greenhouse gas emissions from a given source to the take of polar bears with reasonable certainty, the four alternatives would not have different consequences for the physical environment. Under alternatives 1 or 4, the unauthorized incidental take of a polar bear would also be a prohibited act under the ESA, regardless of the geographic area where the source was

located. Under alternatives 2 or 3, incidental take would not be a prohibited act under the ESA if the activity occurred within the United States but outside the current range of the polar bear or Alaska, respectively. However, under any of the alternatives, any incidental take of polar bears is still prohibited under the MMPA and would be a violation of that law, regardless of where the activity occurred, unless the activity had been authorized under the MMPA. The MMPA violation would be pursued by the Federal government via appropriate enforcement actions. Violators would be subject to the full array of the MMPA's civil and criminal penalties.

A similar situation applies for other types of activities, such as contaminant releases, that may occur outside the geographic range of ESA incidental take prohibitions. If such activities cause incidental take of a polar bear, and have not been authorized under the MMPA, then that causal connection would also lead to a MMPA incidental take violation. And, if there was a Federal nexus, the incidental take would trigger the section 7 consultation process. Therefore, any ESA incidental take prohibition would be simply additive to the existing MMPA incidental take prohibition, authorization process, and penalties (which are more strict than those under the ESA and would be pursued by the Federal government via appropriate enforcement actions).

None of the four alternatives affect or alter the obligation of federal agencies to consult with the Service under Section 7 of the ESA when applicable. Where an action has a federal nexus, the ESA requires that a federal agency consult with the Service when the best available science indicates that an action "may affect" a species or its critical habitat. Because of the ubiquitous nature of GHG, the Service anticipates that federal actions with a national scope, rather than site-specific activities, would be more likely to trigger the consultation requirement at some point in the future.

Biological Environment

Part 1: Contrasting Alternative 1 – “No Action” – Standard Threatened Species Provisions overlaid on existing MMPA and CITES provisions **to Alternatives 2, 3, and 4**, which all propose a 4(d) special rule to designate the MMPA and CITES as the primary regulatory framework for the polar bear.

Alternative 1 would apply the regulatory framework of the standard threatened species regulations onto the Service’s administration of polar bear protection and conservation, as an additional layer of bureaucracy beyond the continuing protections of the MMPA and CITES for this species. There would be a number of adverse consequences associated with this alternative. While some of these adverse consequences consist of administrative and legal burdens for the Service, the public and the regulated community, other aspects of this alternative would have a direct negative effect on polar bear conservation and survival. Those biological effects are the focus of this section.

Issue #1: Inability to haze problem bears could promote escalation of human-bear encounters into more dangerous situations, potentially culminating in the death of a person or a bear.

Both the MMPA and the ESA provide restrictions on the intentional take of listed species, and both statutes provide certain exceptions to allow taking of polar bears that would otherwise be prohibited, such as for self-defense. There are differences, however, in who can undertake hazing to provide for public safety and welfare of the polar bear under the two laws, as well as differences in the mechanisms available that allow non-lethal, non-injurious hazing. The MMPA-specific exemptions and authorizations have proven to be successful in preventing injury

and death to humans and greatly minimizing injury and death to polar bears, and have provided benefits for the polar bear by allowing non-lethal techniques to deter bears from property and away from people before situations escalate, thereby preventing unnecessary injury or death of polar bears. If the ESA general provisions for threatened species were applied to the polar bear as per alternative 1, the regulatory scheme of the ESA would result in a far less proactive response to problem bears, possibly resulting in a greater number of serious human-bear encounters in the future, as explained in detail below.

Section 109(h) of the MMPA allows the humane taking of a marine mammal by specific categories of people (i.e., Federal, State, and local government officials or employees or any other persons designated under section 112(c) of the MMPA) in the course of their official duties provided that one of three criteria is met – the taking is for 1) the protection or welfare of the marine mammal; 2) the protection of the public health and welfare; or 3) the nonlethal removal of nuisance animals. Section 112(c) of the MMPA allows the Service to enter into cooperative agreements with people to carry out the purposes of MMPA section 109(h). Thus this provision allows take of polar bears prior to a human-bear encounter, with an emphasis on use of non-lethal measures, to prevent the use of deadly force against a polar bear. These MMPA-specific authorizations have been successful at protecting communities, industry, and polar bears for many years.

Under sections 109(h) and 112(c) of the MMPA, the Service has implemented a successful education and deterrence program for more than 15 years. Under this program, only individuals who are trained and qualified in proper techniques for deterring and hazing polar bears may receive an authorization. All polar bear harassment events must be reported to the Service's Marine Mammals Management Office in Anchorage, Alaska, within 24 hours of the event, and

all encounters must be documented on designated forms provided by the Service. These reports have substantiated the benefits of hazing in these situations and have shown that this practice does not pose a threat to the continued existence of polar bears, although one polar bear was recently killed during a hazing event. The ability to designate non-Federal, non-State representatives as “cooperators” pursuant to sections 112(c) and 109(h) of the MMPA has allowed the Service to develop deterrence measures for villages at the request of and in collaboration with Alaska Natives who live on the North Slope of Alaska. As a result, the Service currently has in place such authorizations with appropriately trained Alaska Natives who, in turn, are able to conduct polar bear patrols around their communities to ensure bears are deterred from local villages prior to safety concerns necessitating the lethal removal of the bear. Similarly, the Service has authorizations in place with trained individuals working with the oil and gas industry in polar bear habitat to ensure the safety of workers and polar bears.

Specifically, since 1989 the Service has authorized nonlethal intentional take of polar bears to Alaska Native Communities such as the North Slope Borough and the Native Village of Kaktovik, as well as to resource development industries such as ConocoPhillips Alaska, Inc., which has been used to ensure that personnel tasked with hazing polar bears away from people or infrastructure are trained in appropriate techniques to deter bears. This training ensures that: 1) the level of deterrence is appropriate to the particular situation; 2) the person tasked with deterring is knowledgeable of bear behaviors; and 3) the risk to both humans and bears is minimized. Over the past ten years (2002-2011), Service trainers have conducted over 160 training events in Alaska Native communities and for industry personnel. During that time, of the more than 1,500 human-bear interactions reported by the oil and gas industry to the Service, 390 necessitated active deterrence by trained personnel. Of those, only one incident has resulted

in a bear fatality. In that incident, the responsible party acted inconsistently with their MMPA authorization and was charged with violating the MMPA and assessed a fine of \$10,000.00.

Reduction of human-bear conflict is becoming even more important as increasing numbers of polar bears are using coastal habitat during the fall open-water season. (See 73 FR 28212; May 15, 2008). To effectively manage the subsequent risks posed by increased human-bear proximity, a formal patrol program exists for the North Slope Borough villages of Point Hope, Point Lay, Wainwright, Barrow, Kaktovik and Nuiqsut (Cross Island). In anticipation of increased human-bear interactions in Western Alaska, an area typically not utilized by polar bears when sea ice is available, the Service partnered with the Alaska Nanuuq Commission to initiate polar bear conservation efforts, including deterrence training and establishment of polar bear patrols. Several villages in western Alaska are in the preliminary stages of developing patrol capability, including Wales, Kivalina, Shishmaref, Little Diomedede, Nome/King Island, Brevig Mission, Kotzebue, Gambell and Savoonga.

If there were no 4(d) special rule in place and the ESA general prohibitions for threatened species were applied to the polar bear, as per alternative 1, 50 CFR 17.31 and 17.21(c)(3) would provide exceptions for similar activities described above under the MMPA, except that the activities could only be conducted by any employee or agent of the Service, any other Federal land management agency, the National Marine Fisheries Service, or a State conservation agency, who is designated by the agency for such purposes. However, the ESA general threatened species regulations do not provide a similar exception to the prohibition on take for other individuals seeking to conduct activities for the welfare of the polar bear and the interest of public safety. Rather, as discussed in more detail below, these activities must be authorized by permit pursuant to 50 CFR 17.32. Unlike the program described above currently authorized

under the MMPA, in which the Service works proactively with people to educate them on the appropriate measures to be used to ensure minimum effects on the polar bear and the public, and the exemptions described below that do not require advance authorization, the regulatory scheme that would be in effect under the ESA general threatened species regulations would necessitate that individual applicants anticipate when they would need an ESA permit. This ESA permit requirement would put individuals in the difficult position of determining how they should react if confronted by a polar bear where it is not obviously a situation in which the individual is defending against bodily harm (i.e., where the self-defense exemption to the ESA requirement for advance authorization may apply). Specifically, in order for anyone other than any employee or agent of the Service, a Federal land management agency, the National Marine Fisheries Service, or a State conservation agency to conduct such activities without being in violation of the general prohibitions for threatened species found at 50 CFR 17.31, these persons or groups would have to apply for a permit from the Service under the provisions of 50 CFR 17.32 for each and every activity that is reasonably likely to result in the prohibited taking of a polar bear under the ESA.

In addition to the provisions currently in place for the polar bear under 109(h) of the MMPA, subsection 101(a)(4)(A) of the MMPA allows any persons to deter a marine mammal from endangering personal safety, damaging fishing gear or catch (by owner or an agent or employee of the owner of that gear or catch), other private property (by owner or an agent or employee of the owner of that property), and if done by a government employee, public property so long as deterrence measures do not result in death or serious injury of the marine mammal. As with the provisions discussed above, if alternative 1 were implemented and the applicable ESA prohibitions and authorizations at 50 CFR 17.31 and 17.32 were applied, to avoid a violation of

the ESA, persons conducting these hazing activities would need a permit issued by the Service pursuant to the regulatory provisions for enhancement or special purposes permits found at 50 CFR 17.32. For the reasons detailed above, requiring additional authorizations for activities already strictly regulated under the MMPA would require additional time and expense, would impose significant burdens on the regulated community, and would put both polar bears and people at risk. The Service believes there would be no conservation benefit to the polar bear stemming from these additional authorizations under the ESA and, instead, the Service believes that the likelihood of individual polar bears being lethally taken would increase in light of the ESA requirement to obtain advance authorization to deter bears on a permit-by-permit basis.

Uninterrupted continuation of MMPA authorizations and exemptions to haze problem bears also has international conservation importance and potential transboundary effects for polar bears. The Service, in partnership with the Alaska Native community and our colleagues in the Russian Federation, are working across the Bering/Chukchi Sea to ensure that all management options are realized to minimize human-bear interactions that might otherwise escalate into lethal take situations. This international partnership occurs under the auspices of the Bilateral Agreement, which requires the United States and the Russian Federation to manage and conserve polar bears based on sound science and to meet the needs of native peoples. The United States and the Russian Federation have both recognized that the removal of a polar bear, whether it is taken for subsistence purposes, incidentally, or because it poses a threat to human safety, should be considered a reduction to the overall population. Therefore, partners are working across the region, in both the United States and the Russian Federation, to ensure management efforts provide for the reduction of potential takes resulting from human-bear interactions. The

continuing flexibility to deter curious or hungry bears afforded under the MMPA is key to this management and conservation effort.

Alternatives 2, 3, and 4 each designate the MMPA and CITES as the primary regulatory mechanisms to administer conservation and protection programs for the polar bear, while Alternative 1 layers ESA regulatory restrictions on top of those already in place under the MMPA and CITES. Alternatives 2, 3, or 4 would enable the Service to continue their successful programs described above, working with communities to deter problem bears and avoid dangerous human-bear encounters. The deterrent provisions under MMPA promote measures that prevent serious injury or death to the bear by preventing escalation of an incident to the point where the bear is killed in self-defense.

Issue #2: Inability to take a marine mammal for the health or welfare of the animal, as in the case of a polar bear entangled in fishing gear or debris, could result in further injury or death of the bear.

The MMPA contains a number of provisions that allow taking of a marine mammal when that taking is for the health or welfare of the animal. Section 101(d) of the MMPA provides that it is not a violation of the MMPA for any person to take a marine mammal if the taking is necessary to avoid serious injury, additional injury, or death to a marine mammal entangled in fishing gear or debris, and care is taken to prevent further injury and ensure safe release. The incident must be reported to the Service within 48 hours of occurrence. If entangled, the safe release of a polar bear (most likely a cub) from fishing gear or other debris could prevent further injury or death of the animal. In addition, under section 109(h) of the MMPA, taking is allowed by Federal, State, or local government officials, or any other person who has been authorized through a MMPA

section 112(c) agreement, when the taking is for the protection or welfare of the animal. This would allow taking to assist abandoned polar bear cubs, to assist injured or sick bears, or to otherwise provide aid.

If there were no 4(d) special rule in place and the ESA general prohibitions for threatened species were applied to the polar bear (i.e., alternative 1), 50 CFR 17.31 would cover some of the same activities. However, under the general threatened species regulations those activities could only be conducted by any employee or agent of the Service, a Federal land management agency, the National Marine Fisheries Service, or a State conservation agency, who is designated by the agency for such purposes. Other persons would not be authorized to come to the aid of an entangled, stranded, abandoned, or sick polar bear without an ESA permit. Under those circumstances, an individual would need to apply for and obtain a permit under 50 CFR 17.32 before assisting an entangled, abandoned, injured, or sick bear. This delay could prove fatal for an animal in need of immediate assistance.

Alternatives 2, 3, and 4 each designate the MMPA and CITES as the primary regulatory mechanisms to administer conservation and protection programs for the polar bear. Any of these three alternatives would empower any person, including those outside the Federal agencies and state conservation agencies covered by the ESA regulatory provision, to come to the aid of an entangled, abandoned, sick, or injured polar bear as described above. Thus, alternatives 2, 3, and 4 each provide a benefit to polar bears in the event of entanglement with fishing gear or other debris, and could prevent further injury or death of entangled, sick, injured, or abandoned bears.

For obvious safety concerns, the Service does not believe it appropriate for the general public to attempt to disentangle or take action to rescue a sick or injured grown polar bear. However, the

Service does recognize that there may be certain rare events where the Good Samaritan provision and the MMPA provision that allows non-lethal taking for the protection or welfare of the animal might be used. For example, a young polar bear, abandoned by its mother, may become caught up in debris found along the coastline. In such a rare case, there could be benefit to the individual animal if its disentanglement were safely accomplished.

Issue #3: If the Service's regulations negatively impacted the ability of Alaska Natives to engage in their longstanding cultural practices related to polar bears, there could be a subsequent reduction in Alaska Native support and participation in valuable conservation activities related to the polar bear.

The Service's partnerships with the Alaska Native community play a profound role in the conservation and management of the polar bear, and are built in part on our recognition of the special exemptions afforded the Alaska Native community under the MMPA. If this ability to continue important cultural practices were disrupted due to implementation of alternative 1, our relationship with the Alaska Native community could be harmed, thus limiting our ability to obtain vital information on the status of the species. For example, samples provided from subsistence-harvested animals contribute to our understanding of the health of the species. Without these strong partnerships, the willingness of Alaska Natives to continue to contribute to these efforts could be jeopardized. The Service has recognized this as a potential negative indirect biological impact of alternative 1.

Part 2: Comparing the Geographic Exclusions under Alternatives 2 and 3

Alternatives 2 and 3 are very similar in scope. Both alternatives designate the MMPA and CITES as the primary regulatory mechanisms to provide conservation and protection programs for the polar bear, and both contain a fourth paragraph that limits the range over which incidental take would be prohibited, as described above. The only substantive difference between alternatives 2 and 3 is the specific geographic area over which incidental take would be subject to ESA take requirements. Under alternative 2, incidental take under the ESA remains a prohibited act except when caused by activities within the U.S. but outside the current range of the polar bear, whereas in alternative 3 incidental take under the ESA remains a prohibited act except when caused by activities within the U.S. but outside of Alaska. Under both alternatives, all of the other ESA prohibited acts (all take that is not incidental, import, export, certain possession, transport in interstate or foreign commerce in the course of a commercial activity, and sale or offer for sale) remain in effect with no geographic limits.

Alternative 2 delineates the geographic area that should be subject to ESA prohibitions against incidental take of the polar bear more precisely than does alternative 3, because alternative 2 is based on polar bear biology (current range) rather than on a geopolitical boundary (alternative 3). Alternative 2 was developed in response to public comment following release of the interim 4(d) special rule (alternative 3) on May 15, 2008, in which several commenters noted that the use of the term “Alaska” in Paragraph (4) was vague, inappropriate, or did not accurately reflect the range of the polar bear. The Service concurred with these comments, and developed a revised Paragraph (4) for the December 2008 final 4(d) special rule to clarify the geographic area warranting additional overlay of ESA incidental take protection.

Prohibiting incidental take of polar bears from activities that occur within the current range of the species, under 50 CFR 17.31, as compared to a prohibition on incidental take from activities

within Alaska, more closely ties application of the ESA prohibition to where polar bears are located on the landscape. The areas within the current range of the polar bear more clearly include land or water that is subject to the jurisdiction or sovereign rights of the United States (including portions of lands and inland waters of the United States, the territorial waters of the United States, and the United States' Exclusive Economic Zone or the limits of the continental shelf) and include the area where polar bears are actually located as compared to alternative 3's "Alaska". As pointed out by commenters on the May 2008 interim 4(d) special rule, use of the term "Alaska" was confusing because it was not clear which of these marine zones were included in the exemption. In addition, there are vast areas of Alaska that contain neither polar bears nor polar bear habitat. Please refer to the section below, "Three case studies" under "Socioeconomic Environment", for additional discussion regarding the differing consequences under alternatives 2 and 3.

Also, please refer to the section below, "Part 2" under "Socioeconomic Environment", for a discussion contrasting alternatives 1 and 4, which do not propose geographical exclusions to the standard incidental take prohibition, to alternatives 2 and 3, which do propose geographic exclusions to the standard incidental take prohibition. Upon further consideration, we have determined, however, that there are no adverse biological implications of the geographic exclusions to incidental take, but there is also no conservation benefit to the geographic exclusions. It is unlikely that a direct causal link could be established between an activity that occurs distant from polar bears or their habitat, and incidental take of a polar bear. The point at which science illuminates a causal connection between a particular activity and ESA incidental take of one or more bears would also lead to a MMPA incidental take violation. The MMPA violation would be pursued by the Federal government via appropriate enforcement actions.

And, if there was a Federal nexus, the ESA incidental take would trigger the section 7 consultation process. Therefore, as discussed earlier, any ESA incidental take prohibition would be simply additive to the existing MMPA incidental take prohibition, authorization process, and penalties (which are more strict than those under the ESA). Thus, the geographic exclusions for ESA incidental take prohibition contained in alternatives 2 and 3 would have no conservation effect on polar bears, relative to alternative 4 which contains no such geographic exclusion.

Socioeconomic Environment

Part 1: Contrasting Alternative 1 – “No Action” – Standard Threatened Species Provisions overlaid on existing MMPA and CITES provisions **to Alternatives 2, 3, and 4**, which all propose a 4(d) special rule to designate the MMPA and CITES as the primary regulatory framework for the conservation and protection of the polar bear.

Through the original drafting of the MMPA and its subsequent amendments, the MMPA has been crafted to provide for the conservation of Arctic marine mammals, while at the same time accommodating the subsistence, cultural, and economic interests of Alaska Natives. Alternative 1 would apply the standard regulatory framework for threatened species onto the Service’s administration of polar bear protection and conservation, as an additional layer of bureaucracy beyond the continuing protections of the MMPA and CITES for this species. Without a 4(d) special rule to allow practices authorized under the MMPA to continue, several current cultural practices of importance to Alaska Native people would require permits under the ESA, or even be disallowed under the ESA general prohibitions for threatened species (alternative 1), as described in detail below.

Under Executive Order 12898, Federal agencies are required to consider whether their proposed actions or alternatives may have disproportionately high and adverse impacts on low income or minority populations. In the case of this 4(d) special rule, environmental justice concerns necessitate a careful consideration of potential impacts to the local Alaska Native communities that rely on polar bears for subsistence and cultural identity. In this respect, alternatives 2, 3, or 4 are clearly superior to the no action alternative (1), because they facilitate unimpeded continuation of the subsistence, cultural, and economic uses of polar bears by Alaska Natives.

Issue #1: Cultural exchange practices between Alaska Natives and Native inhabitants of Russia, Canada, and Greenland, with whom Alaska Natives share a common heritage, could be negatively impacted by regulation under the ESA.

The MMPA allows the import and export of marine mammal parts and products that are components of a cultural exchange, which is defined under the MMPA as the sharing or exchange of ideas, information, gifts, clothing, or handicrafts. Cultural exchange has been an important exemption for Alaska Natives under the MMPA. Additionally, the United States recognizes a personal effects exemption under CITES, that authorizes the export of legally-obtained parts or products of Appendix-II listed species (such as the polar bear) hand-carried out of the country as part of personal travel. As a result, no permits under CITES have been required by the United States for travel associated with cultural exchange (though declaration to Service wildlife inspectors at time of export is required). If the general ESA regulations containing prohibitions and exceptions for threatened species were applied for the polar bear (alternative 1), each import and export of these products by an Alaska Native, as well as any imports or exports by Native people of Canada, Greenland, or the Russian Federation travelling to or from the United States for cultural exchange purposes, would have to be authorized in advance under 50

CFR 17.32. The requirement to obtain a permit under the ESA regulations would take time and create expense for Alaska Native applicants while providing no conservation benefit to the polar bear. This additional authorization under the ESA would be disruptive to Alaska Native cultural traditions for those who travel with polar bear parts as part of a cultural exchange with their relatives and other Native people of Greenland, Russia, and Canada, when no permit is currently required under the MMPA or CITES. In addition, having never processed an application for these types of activities under the standard threatened species regulations, the Service could not guarantee that Alaska Natives would qualify for an authorization under 50 CFR 17.32.

Alternatives 2, 3, and 4 all contain a 4(d) special rule that designates the MMPA and CITES as the primary regulatory tools for the conservation and protection of the polar bear. Thus, cultural exchange activities of Alaska Natives would continue uninterrupted under the provisions set forth under the MMPA and CITES.

Issue 2: Non-lethal deterrence measures administered under the MMPA save polar bear lives in Alaska. Since shared polar bear populations are internationally managed, avoidance of lethal polar bear take in Alaska helps support the continued subsistence use of polar bears by both Alaska Natives and indigenous peoples of other countries within the polar bear's range.

In 1973, the Polar Bear Range States -- the United States, Canada, Greenland, Norway and the Russian Federation -- signed the *International Agreement on the Conservation of Polar Bears* (1973 Polar Bear Agreement). The 1973 Polar Bear Agreement calls for cooperative international management of polar bear populations based on sound conservation practices.

Among other things, the Agreement generally prohibits polar bear hunting except by local people

or their permittees using traditional methods, calls for protection of females and denning bears, and bans use of aircraft and large motorized vessels to hunt polar bears. The 1973 Polar Bear Agreement itself is not self-implementing; each signatory nation has its own national legislation to implement the Agreement's terms, which in the United States is primarily the MMPA. Polar bear management by each respective Range State has been described in detail (Schliebe et al., 2006).

Because implementation of a special rule has direct, indirect, and foreseeable effects on U.S. polar bear populations of the Southern Beaufort and Chukchi Seas, which are shared with Canada and the Russian Federation respectively, the focus of our analysis is on these two populations. Consistent with Article III of the 1973 Polar Bear Agreement, the Range States – including the US, Canada and Russia -- recognize take by local people for subsistence purposes as an important exception to the otherwise prohibited taking of polar bears. Other international agreements covering the shared populations also recognize the importance of limiting human-bear interactions and encourage appropriate hazing techniques to accomplish this. For example, Article III of the Inuvialuit-Inupiat Agreement calls for communities to use deterrence measures when bears are close to human environments. Both transboundary management regimes also recognize that any bears taken by humans result in a loss to the population. So when bears in the United States are lethally removed in defense of life, a corresponding reduction in allowable harvest levels occurs. As a result, reductions in human-caused bear mortalities benefit the transboundary management of polar bears in Canada and the Russian Federation. Thus, alternatives 2, 3, and 4 all provide a benefit relative to the “no action” alternative 1, because they

enable our successful, proactive, MMPA-administered deterrence measures to continue without interruption.

Issue #3: The registered agent and tannery process currently in place under the MMPA facilitates the subsistence practices of Alaska Natives who make handcrafted clothing and handicrafts from polar bear parts.

To assist Alaska Natives in the creation of authentic Native articles of handicrafts and clothing, the Service's MMPA implementing regulations at 50 CFR 18.23(b) and (d) allow persons who are not Alaska Natives to register as an agent or tannery. Once registered, agents are authorized to receive or acquire marine mammal parts or products from Alaska Natives or other registered agents. They are also authorized to transfer (not sell) hides to registered tanners for further processing. A registered tannery may receive untanned hides from Alaska Natives or registered agents for tanning and return. The tanned skins may then be made into authentic articles of clothing or handicrafts. Registered agents and tanneries must maintain strict inventory control and accounting methods for any marine mammal part, including skins; they provide accountings of such activities and inventories to the Service. These restrictions and requirements for agents and tanners allow the Service to monitor the processing of such products, while ensuring that Alaska Natives can exercise their subsistence rights under the MMPA's exemption.

If the general ESA regulations containing prohibitions and exceptions for threatened species were applied for the polar bear (alternative 1), the ESA prohibition on transport in interstate commerce of listed species and parts in the course of a commercial activity would apply, and Alaska Natives seeking to use registered agents outside of Alaska in the course of a commercial

activity, as well as registered agents returning (selling) those parts to an Alaska Native or registered agent in Alaska, would have to apply for an authorization under 50 CFR 17.32.

Alternatively, the Service could initiate a rulemaking to adopt tannery and agent provisions under the ESA that are the same as, or closely similar to, the MMPA rule. This, however, would be time consuming and the Service cannot ensure the outcome of such a rulemaking. Either way, the requirement to obtain additional permits under the ESA, or an additional rulemaking to adopt an ESA tannery and agent rule, would be disruptive to this activity that is currently allowed without a permit under the MMPA.

Under alternatives 2, 3, or 4, the 4(d) special rule would adopt the registered agent and tannery process from current MMPA regulations. Adopting the registered agent and tannery process would align ESA provisions relating to the creation of handicrafts and clothing by Alaska Natives with the current process under the MMPA, and would facilitate Alaska Natives to engage in the subsistence practices provided under the ESA's section 10(e) exemptions.

Part 2: Contrasting Alternatives 1 and 4, which do not propose geographical exclusions, to **Alternatives 2 and 3**, which do propose geographic exclusions from the incidental take prohibitions.

Alternatives 1 and 4 both lack any version of Paragraph 4, which was included in differing forms within both the interim and final 4(d) special rules published on May 15, 2008 and December 16, 2008, respectively. Alternative 1 – the absence of a 4(d) special rule - applies the ESA general prohibitions and authorizations for threatened species to the polar bear. In contrast, alternative 4 proposes a 4(d) special rule to designate the MMPA and CITES as the primary regulatory

mechanisms for the conservation and protection of the polar bear, but alternative 4's special 4(d) rule does not contain a Paragraph 4.

The purpose of Paragraph 4 within either alternative 2 or 3 is to limit the geographic range over which incidental take would be prohibited. Under alternative 2, incidental take under the ESA remains a prohibited act except when caused by activities within the U.S. but outside the current range of the polar bear, whereas in alternative 3 incidental take under the ESA remains a prohibited act except when caused by activities within the U.S. but outside of Alaska.

Note that none of the alternatives remove or alter in any way the consultation requirements of Federal agencies under section 7 of the ESA. Also, none of the alternatives modify the prohibitions against taking, including incidental taking, under the MMPA, which continue to apply regardless of where the activity occurs. If it is shown that a particular activity is reasonably likely to cause the incidental taking of a polar bear, regardless of the geographic location of the activity and regardless of whether the take was lethal or nonlethal, any incidental take that occurs is a violation of the MMPA unless authorization for the take under the MMPA has been issued by the Service.

Because citizen suits might be filed alleging ESA incidental take violations, paragraph 4 (or its absence) may have a socioeconomic impact. Paragraph 4 seeks to address the perceived burden of the ESA, by limiting the potential use of the ESA as a tool to challenge activities – particularly those involving GHG emissions -- that occur within the United States but in areas outside either Alaska or the range of the species, depending on the version of the provision. After considering comments on both sides of the issue, the Service now concludes that the likelihood is small that citizens will file numerous baseless citizen suits given that current

science does not support linking specific emitters with incidental take of a polar bear within the lands or waters of the United States or on the high seas.

To recap, two important points relevant to Paragraph 4 do not vary among the four alternatives:

(1) actual unauthorized incidental take of a polar bear is a violation of the MMPA regardless of where the activity occurs; and (2) the obligations of Federal agencies to consult the Service under ESA section 7 remain intact under each of the alternatives. The potential socioeconomic consequence of Paragraph 4 that does vary and distinguish alternatives 2 and 3 from 1 and 4 is that the opportunity for groups to bring incidental take lawsuits varies between the ESA and the MMPA. Below we explain this consequence in detail.

1) Opportunities for lawsuits are different among the four alternatives

One difference between the MMPA and the ESA is the applicability of the ESA citizen suit provision. Under section 11(g) of the ESA, any person may commence a civil suit against an individual, business entity, State or tribal Government, or Federal agency that is allegedly in violation of the ESA. The MMPA does not have a similar provision.

While any unauthorized incidental take caused by an activity would be a violation of the MMPA, regardless of where the activity took place, only the Federal government could bring a legal action to enforce the prohibition on incidental take. Alternatives 2 or 3 would restrict the ability of non-Federal entities to take separate legal action under the ESA against the entity allegedly causing the incidental take, if the activity were located within the United States but outside the geographic range specified in Paragraph 4 of the 4(d) special rule. Under such circumstances, direct legal action against a non-Federal entity causing incidental take could only be brought by the United States, and not by a private citizen or citizen group.

For any of the alternatives, operation of the citizen suit provision of the ESA remains unaffected for any restricted act other than incidental take, such as direct take, import, export, sale, and transport in interstate or foreign commerce in the course of a commercial activity, regardless of where that activity occurs. Also, the ESA citizen suit provision would be available for challenges to alleged incidental take violations occurring outside the geographic area of exemption. The ESA citizen suit provision also remains fully available for alleged failure of Federal agencies to consult the Service under section 7 of the ESA or for challenges to the adequacy of consultation, regardless of where the agency action occurs within the United States, its territorial waters, or on the high seas. Further, any incidental taking caused by an activity, regardless of where the activity occurs, that is connected, either directly or in certain instances indirectly, to an action by a Federal agency, could be pursued under the APA, which allows challenges to final agency actions.

Finally, as stated earlier, the ESA citizen suit provision is not the only enforcement mechanism available for incidental take violations. The Service will pursue violations under the MMPA for incidental take that has not been authorized, as appropriate.

2) Penalties for violations are different between the MMPA and the ESA, but result in negligible differences among the four alternatives

Any incidental take would be a violation of the MMPA under any of the alternatives, regardless of where the activity occurred, and would be subject to the full array of the MMPA's civil and criminal penalties unless it was authorized. Any person, which includes businesses, States, Federal agencies, or any other entity, as well as individuals, who violates the MMPA's takings prohibition or any regulation may be assessed a civil penalty of up to \$10,000 for each violation.

A person or entity that knowingly violates the MMPA's takings prohibition or any regulation will, upon conviction, be fined up to \$20,000 for each violation, imprisoned for up to 1 year, or both.

Because CITES is implemented through the ESA, any import or export of polar bears or polar bear parts or products contrary to CITES and possession of any polar bear specimen that was imported or exported contrary to the requirements of CITES is a violation of the ESA and remains subject to its penalties, under any of the alternatives.

Under any of the alternatives, other violations not related to CITES also remain subject to the penalties of the ESA. Under paragraph (2) of alternatives 2, 3, or 4, any act that would be prohibited under the ESA regulations at 50 CFR 17.31 (other than incidental take in the specified geographic areas) and that has not been authorized or exempted under the MMPA would continue to be a violation of the ESA unless authorized under 50 CFR 17.32 or exempt under the ESA. In addition, even if an act is authorized or exempt under the MMPA, failure to comply with all applicable terms and conditions of the statute, the MMPA implementing regulations, or an MMPA permit or authorization issued by the Service would likewise constitute a violation of the ESA.

Under Paragraph (4) of alternatives 2 or 3, the ESA penalties also remain applicable to any incidental take of polar bears that is caused by activities within the geographic range specified in the alternative, if that incidental take has not been authorized under the MMPA consistent with paragraph (2) of the special rule or if the person or entity has failed to comply with all requirements of their MMPA authorization or exemption. While ESA penalties would not apply to any incidental take caused by activities located within the United States but outside the

geographic range specified, as explained above, all MMPA penalties remain in place in these areas.

Under any of the alternatives, a civil penalty of \$12,000 to \$25,000 may be assessed for a knowing violation (or any violation by a person engaged in business as an importer or exporter) of certain ESA provisions, regulations, or permits, while civil penalties of up to \$500 are assessed for any other violation. Criminal penalties and imprisonment for up to one year, or both, are also assessed for certain violations of the ESA. In addition, all fish and wildlife taken, possessed, sold, purchased, offered for sale or purchase, transported, delivered, received, carried, shipped, exported, or imported contrary to the provisions of the ESA or any ESA regulation or permit or certificate issued under the ESA are subject to forfeiture to the United States. There are also provisions for the forfeiture of vessels, vehicles, and other equipment used in committing unlawful acts under the ESA upon conviction of a criminal violation.

As discussed earlier, even where MMPA penalties provide the sole deterrence against unlawful activities under this rule, these penalties are substantial. A civil penalty of up to \$10,000 for each violation may be assessed against any person, which includes businesses, States, Federal agencies, and any other entity, as well as private individuals, who violates the MMPA or any MMPA permit, authorization, or regulation. Any person or entity that knowingly violates any provision of the statute or any MMPA permit, authorization, or regulation will, upon conviction, be fined up to \$20,000 for each violation, be imprisoned for up to 1 year, or both. The MMPA also provides for the seizure and forfeiture of the cargo (or monetary value of the cargo) from any vessel that is employed in the unlawful taking of a polar bear, and additional penalties of up to \$25,000 can be assessed against a vessel causing the unlawful taking of a polar bear. Finally,

any polar bear or polar bear parts and products themselves can be seized and forfeited upon assessment of a civil penalty or a criminal conviction.

While there are differences between the penalty amounts in the ESA and the MMPA, the penalty amounts are comparable or stricter under the MMPA. The Alternative Fines Act (18 U.S.C. 3571) has removed the differences between the ESA and the MMPA for criminal penalties. Under this Act, unless a Federal statute has been exempted, any individual found guilty of a Class A misdemeanor may be fined up to \$100,000. Any organization found guilty of a Class A misdemeanor may be fined up to \$200,000. The criminal provisions of the ESA and the MMPA are both Class A misdemeanors and neither the ESA nor the MMPA are exempted from the Alternative Fines Act. Therefore, the maximum penalty amounts for a criminal violation under both statutes is the same: \$100,000 for an individual or \$200,000 for an organization.

While the maximum civil penalty amounts under the ESA are for the most part higher than the maximum civil penalty amounts under the MMPA, other elements in the penalty provisions mean that, on its face, the MMPA provides greater deterrence. Other than for a commercial importer or exporter of wildlife or plants, the highest civil penalty amounts under the ESA require a showing that the person “knowingly” violated the law. The penalty for other than a knowing violation is limited to \$500. The MMPA civil penalty provision does not contain this requirement. Under section 105(a) of the MMPA, any person “who violates” any provision of the MMPA or any permit or regulation issued there under, with one exception for commercial fisheries, may be assessed a civil penalty of up to \$10,000 for each violation.

Under alternative 1, penalties for violations would be by separate law, so penalties of both the ESA and the MMPA would apply. Under alternative 4, any 50 CFR 17.31 prohibited act not

authorized or exempt under and therefore in violation of the MMPA or CITES would also be a violation of ESA section 17.31 and penalties of both the MMPA and ESA would apply.

Therefore there is no difference in deterrence between these alternatives.

Under alternatives 2 and 3, any 50 CFR 17.31 prohibited act not authorized or exempt under and therefore in violation of the MMPA or CITES would also be a violation of ESA section 17.31 prohibitions, except for incidental take caused by activities outside the specified areas. However, because for every other 50 CFR 17.31 prohibited act both ESA and MMPA penalties would apply, and even for incidental take caused by activities outside the specified geographic areas the comparable or stricter MMPA penalties would still apply, the difference in deterrence value among the four alternatives is negligible.

Three Case Studies (to demonstrate consequences of paragraph 4)

To illustrate the consequences that stem from paragraph 4 and how the alternatives differ, we will discuss three hypothetical examples below: (1) helicopter noise from ecotourism over sea ice off the north coast of Alaska; (2) a power plant under construction in Southeast Alaska that will generate greenhouse gases; and (3) a proposed gold mine in the permitting stage that will emit mercury emissions into the air in central Alaska.

Scenario 1 (hypothetical): A commercial recreational flightseeing company is interested in providing helicopter flightseeing services to view sea ice formation more than 3 miles off the north slope of Alaska. Noise from low-flying aircraft may cause behavioral impacts in polar bears.

Polar bears are known to retreat from sources of noise and the sight of vessels and aircraft, especially helicopters (United States Fish and Wildlife Service, 2011). Extensive or repeated

overflights, in particular, could disturb polar bears. The effects of fleeing from aircraft may be minimal if the event is short and the animal is otherwise unstressed. However, on a warmer day, a short run may be enough to overheat a well-insulated polar bear. The effect of fleeing an aircraft on polar bear cubs, particularly cubs of the year, would likely be the use of energy that otherwise would be needed for survival during that critical time in a polar bear's life. Multiple exposures of a young bear to commercial ice flight activities could have significant behavioral and health impacts.

Under each of the four alternatives, a Federal agency considering whether to issue a flightseeing permit must consider whether the permit might pass the "may affect" test for polar bears. If so, under any of the four alternatives, the Federal agency is obligated to consult the Service under section 7 of the ESA. Also, under any of the four alternatives, the incidental take of a polar bear due to noise disturbance from flightseeing operations would be prohibited under the MMPA, unless prior authorization for incidental take had been granted by the Service under that statute.

The difference between how the alternatives would regulate this scenario thus rests on whether any incidental take from helicopter noise would also be prohibited under 50 CFR 17.31. Any incidental take not authorized under the MMPA would be a 50 CFR 17.31 prohibited act under alternatives 1 or 4, which contain no geographic exemptions, and under alternative 2, because the activity occurs within the current range of the polar bear. It would not be a prohibited act under alternative 3, however, because the helicopter noise occurs outside the State of Alaska or its jurisdiction (i.e., beyond the territorial sea that extends up to 3 miles off the coast of Alaska). If the company failed to obtain MMPA incidental take authorization and the Federal agency failed to consult with the Service, the Service would pursue appropriate action, but a private group would not have access to the ESA citizen suit provision to challenge the ecotourism company for

an alleged section 9 violation under alternative 3. The group's options would be limited to challenging the Federal agency that issued a permit for the action for alleged failure to consult the Service under section 7 of the ESA, or for a violation of the APA.

Scenario 2 (hypothetical): A new power plant is currently being planned and permitted in a southeast Alaskan city. It will burn fossil fuels and emit greenhouse gases.

In this scenario, alternative 2 poses a potential socioeconomic advantage over alternatives 1, 3 and 4, because the power plant in southeast Alaska would not be subject to a potential ESA lawsuit from a citizen or group alleging incidental take of polar bears or effects on their habitat.

The four alternatives differ in the legal options available to groups who wish to challenge the power plant that will emit greenhouse gases. Under alternative 1, any person or group that thinks they could prove that incidental take *actually occurred* or is *reasonably certain* to occur could bring an ESA takings lawsuit using the ESA citizen suit provision. Under alternative 4, which contains no Paragraph 4, any person or group that thinks they could prove that incidental take *actually occurred* or is *reasonably certain* to occur without appropriate MMPA authorization, could bring an ESA takings lawsuit using the ESA citizen suit provision. Under alternative 3, assuming that the power plant did not apply for and receive MMPA incidental take authorization, the ESA citizen suit provision could also be used to challenge the southeast Alaskan power plant's greenhouse gas emissions allegedly causing incidental take of polar bears as a violation of the ESA, because the power plant is within Alaska. Under alternative 2, again assuming that the power plant did not apply for and receive MMPA incidental take authorization, the person or group could bring an APA action against a Federal agency alleging that the agency had authorized the plant even though it was causing incidental take of polar bears in violation of the

MMPA, but the citizen suit provision would be unavailable for an ESA incidental takings case, because the power plant is located within the United States but not within the current range of the polar bear.

Under any of the alternatives, any incidental take that *actually occurred* or was *reasonably certain* to occur, the same standard for proving an ESA takings violation, would be a violation of the MMPA, unless the power plant had obtained prior MMPA authorization. However, under the MMPA only the Federal government could bring an enforcement action for an incidental take violation, while under the ESA the citizen's suit provision enables private citizens to challenge the alleged violator. In addition, under any of the alternatives any Federal agency involved with authorization of the power plant would need to consult with the Service under section 7 of the ESA once the best available science indicated that the action may affect the polar bear or its critical habitat.

Scenario 3 (hypothetical): A proposed gold mine in central Alaska is currently in the permitting stage. It will emit mercury into the air as a by-product of gold production, some of which may fall out within the polar bear's current range.

Mercury is a potential contaminant of concern for polar bears, because of its potential reproductive toxicity at relatively low concentrations, and its ability to biomagnify and bioaccumulate in the food web. In contrast to greenhouse gas emissions, which become well mixed in the global atmosphere and are thus of global rather than local concern, some types of mercury emissions fall out within a certain geographic range and may cause localized ecotoxicological effects within the range of deposition. Polar bears from the western Canadian

Arctic and southwest Melville Island, Canada, have some of the highest known mercury concentrations, which are close to a threshold for biological effect (73 FR 28291; May 15, 2008).

Because none of the alternatives affect ESA consultation requirements, Federal agencies permitting the mine or taking action on the mercury emission must consider whether the point source of mercury might pass the “may affect” test for polar bears. If so, regardless of which of the four alternatives the Service selects, the Federal agency involved with permitting the mine or mercury emissions is obligated to consult the Service under section 7 of the ESA. Also, regardless of which of the four alternatives the Service selects, the incidental take of a polar bear due to the mercury emission would be a violation of the MMPA, if it could be proven that the mine caused the taking. If this causal connection could be made, the Service would inform the mine owners that they are likely to cause a violation of the MMPA once the mine is operating and that, if they fail to apply for and obtain incidental take authorization under section 101(a)(5) of the MMPA, the federal government would pursue appropriate legal action.

The difference among the alternatives thus rests on whether incidental take could be shown to be caused by the mercury emission and is also prohibited under 50 CFR 17.31. If it could be proven that the mine caused the incidental take of one or more bears, the incidental take would be an ESA violation under alternative 1. If it could be proven that the mine caused the incidental take of one or more bears and the mine owners had not obtained incidental take authorization under the MMPA, the incidental take would also be an ESA violation under alternative 4, which contain no geographic exemptions, and under alternative 3, because the activity occurs within Alaska. Any provable incidental take of polar bears would not be a violation under the ESA under alternative 2, however, because the mine is located outside the current range of the polar bear.

Because any provable incidental take of polar bears caused by the mine would be a violation of the MMPA take prohibition under any of the alternatives, the key consequence of the limitation in paragraph 4 would be a limitation on a person's or group's options to seek enforcement action under alternative 2 for any incidental take that occurred. Under any of the alternatives, if the causal connection could be made between the mine and incidental take of polar bears, a person or group would be able to legally challenge a Federal agency for an alleged failure to consult under section 7 of the ESA; bring an APA legal action against the Federal agency for issuing the permit that would cause a violation of the MMPA (assuming the mine had not obtained MMPA incidental take authorization); or encourage the Service to take appropriate enforcement action under the MMPA. However, for the same reasons described above under scenario 2 and making the same assumptions, the person or group could use the ESA citizen suit provision to bring a legal challenge alleging an ESA takings violation under alternatives 1, 3, and 4, but would not have access to the ESA citizen suit provision to challenge the mercury emitter for an alleged takings violation under alternative 2.

For these reasons, once there is sufficient information to show that the mine would cause the incidental taking of one or more polar bears and assuming that no MMPA incidental take authorization were obtained, that taking would be a violation of law under either the MMPA (alternative 2) or the MMPA and the ESA (alternatives 1, 3, and 4). While there would be differences in who could pursue an enforcement action, there is no difference between whether the act is a violation of law. The Service will pursue violations under the MMPA for incidental take that has not been authorized, as appropriate. Thus, the geographic exclusion for ESA incidental take prohibition contained in alternative 3 would provide no conservation benefit for

polar bears, relative to alternative 4 which contains no such geographic exclusion, or relative to alternative 2 which contains a non-applicable geographic exclusion (i.e., range of the polar bear).

Cumulative Impacts

Cumulative impacts are those combined effects on the quality of the human environment that result from the incremental impact of the preferred alternative (or other alternatives) when added to other past, present, and reasonably foreseeable future actions, regardless of what entity undertakes such actions. The purpose of the cumulative impacts analysis is to ensure that Federal decisions consider the full range of an action's consequences, incorporating this information into the planning process.

Tables 2 and 3 (below) reveal that each of the versions of a 4(d) special rule for the polar bear are more beneficial than alternative 1, the "no action" alternative that would apply all prohibitions and authorizations for threatened wildlife provided under 50 CFR 17.31 and 17.32. The three "action" alternatives are more beneficial than the "no action" alternative, on both biological and socioeconomic grounds. Most importantly, continuing the polar bear management systems already in place under the MMPA will save bears that would otherwise be killed if human-bear incidents escalate into lethal encounters, as explained in the section "Biological Environmental Consequences, Part 1" above.

As sea ice habitat continues to decline, human-bear interactions are expected to increase over time as polar bears spend more time on land. Thus, efficient, effective non-lethal methods to deter problem bears must continue to remain available, to protect both public safety and polar

bears. All three “action” alternatives would facilitate this protection by maintaining the MMPA and CITES as the primary legal foundation for polar bear management.

The primary threat facing the polar bear, which is the loss of sea ice habitat due to climate change, is not an issue that can be addressed under the ESA. However, by minimizing the loss of polar bears from factors under our control, such as optimal management of human-bear interactions in polar bear habitat, the Service can maximize the survival of polar bears and “buy time” for the bears until global climate change mitigation reduces threats to polar bear habitat.

It is not possible for the Service to quantitatively predict how many polar bears will be saved by a 4(d) special rule that provides for uninterrupted deterrence measures under the MMPA.

However, we can say that all of the alternatives except the “no action” alternative would affirmatively contribute to the conservation of the polar bear.

COMPARISON OF ALTERNATIVES

This section provides a summary of the impacts of implementing each alternative, and summarizes the results of our decision-making process. Information in Table 2 is focused on eight resource factors where either 1) different levels of effects or outputs can be qualitatively distinguished among alternatives, or 2) potential impacts of the polar bear ESA listing and/or the various proposed 4(d) special rules have been a major focus of public concern and comment.

Since most alternatives posed beneficial impacts for some resource factors and negative impacts for others, we also analyzed the overall biological impact of each alternative on polar bears and their habitat, as well as the overall socioeconomic impact and the total overall impact of each alternative (Table 3). In Part A of Table 3, a relative, unit-less value was assigned to each

impact category, to relatively scale the significance of each alternative/factor impact. In Part B of the table, the scaled impacts from Table 2 are assigned the appropriate values from Part A, and added for the “overall” impact analysis. The resulting overall impact scores for each alternative are unit-less; only the relative scores between each alternative have meaning.

Table 2. Summary of the Environmental Consequences of each of the Four Alternatives (page 1 of 3)

Resource	Alternative 1: No Action (full ESA protections; no 4(d) Rule)	Alternative 2 (preferred alternative): December 2008 Final Rule with exemption from ESA incidental take prohibition for activities outside polar bear range	Alternative 3: Interim 4(d) Rule of 5/15/2008 with exemption from ESA incidental take prohibition for activities outside Alaska	Alternative 4: 4(d) Special Rule with no geographic exemption from ESA incidental take prohibitions	
Physical - Sea Ice	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess a variety of options to challenge violations of law.	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess several options to challenge violations of law.	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess several options to challenge violations of law.	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess a variety of options to challenge violations of law.	
Biological - Ability to Haze	Moderate Negative effect. Successful programs currently in place under MMPA would be hampered. Human-polar bear interactions would escalate to serious situations more frequently, resulting in increased bear mortality.	Moderate Beneficial effect - successful programs currently in place under MMPA would continue. Hazing of problem bears protects both people and bears.	Moderate Beneficial effect - successful programs currently in place under MMPA would continue. Hazing of problem bears protects both people and bears.	Moderate Beneficial effect - successful programs currently in place under MMPA would continue. Hazing of problem bears protects both people and bears.	
Biological - Ability to Aid Entangled, Sick, Injured, Abandoned, or otherwise Incapacitated Bear	Slight Negative effect. Under the ESA, only Federal or State agents could aid a polar bear that was, for example, entangled or otherwise incapacitated. If such agents were not immediately available in remote communities, such bears could become further injured or die.	Slight Beneficial effect - the MMPA allows any person to aid a marine mammal that was, for example, entangled or otherwise incapacitated, for the health or welfare of the animal. This could save such a polar bear from further injury or death.	Slight Beneficial effect - the MMPA allows any person to aid a marine mammal that was, for example, entangled or otherwise incapacitated, for the health or welfare of the animal. This could save such a polar bear from further injury or death.	Slight Beneficial effect - the MMPA allows any person to aid a marine mammal that was, for example, entangled or otherwise incapacitated, for the health or welfare of the animal. This could save such a polar bear from further injury or death.	
Biological - Geographic range of Incidental Take Prohibition	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess a variety of options to challenge alleged violations of law.	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess several options to challenge alleged violations of law.	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess several options to challenge alleged violations of law.	Alternative choice has NO EFFECT. Non-authorized incidental take remains prohibited under the MMPA regardless of geographic location, ESA section 7 consultation obligations remain intact, and private citizens possess a variety of options to challenge alleged violations of law.	

Table 2. Summary of the Environmental Consequences of each of the Four Alternatives (page 2 of 3)

Resource	Alternative 1: No Action (full ESA protections; no 4(d) Rule)	Alternative 2 (preferred alternative): December 2008 Final Rule with exemption from ESA incidental take prohibition for activities outside polar bear range	Alternative 3: Interim 4(d) Rule of 5/15/2008 with exemption from ESA incidental take prohibition for activities outside Alaska	Alternative 4: 4(d) Special Rule with no geographic exemption from ESA incidental take prohibitions
SocioEconomic - Cultural Exchange	Moderate Negative effect. Cultural exchanges between Alaska Natives and Natives from Russia, Canada and Greenland could be interrupted, or require new paperwork.	Moderate Beneficial effect - cultural exchanges currently allowed under the MMPA and CITES would continue under the provisions of those statutes.	Moderate Beneficial effect - cultural exchanges currently allowed under the MMPA and CITES would continue under the provisions of those statutes.	Moderate Beneficial effect - cultural exchanges currently allowed under the MMPA and CITES would continue under the provisions of those statutes.
SocioEconomic - Registered Tannery and Agents	Slight Negative effect. Alaska Natives that customarily work with registered tanneries outside Alaska under MMPA provisions would face new ESA restrictions. The ability to exercise their rights to make handicraft items from polar bears could be impacted.	Slight Beneficial effect - Adopting the registered agent and tannery process aligns ESA provisions for the creation of handicrafts and clothing by Alaska Natives with the current process under the MMPA. This more fully enables Alaska Natives to subsist as provided under ESA's section 10(e).	Slight Beneficial effect - Adopting the registered agent and tannery process aligns ESA provisions for the creation of handicrafts and clothing by Alaska Natives with the current process under the MMPA. This more fully enables Alaska Natives to subsist as provided under ESA's section 10(e).	Slight Beneficial effect - Adopting the registered agent and tannery process aligns ESA provisions for the creation of handicrafts and clothing by Alaska Natives with the current process under the MMPA. This more fully enables Alaska Natives to subsist as provided under ESA's section 10(e).
SocioEconomic - Administrative/Legal Burden	Moderate Negative effect. Layering ESA restrictions and permit requirements on top of existing MMPA and CITES provisions could create administrative and legal burdens on the regulated public, industry, and Alaska Natives, without providing additional protection of polar bears. Given the burden of proof required, lack of a paragraph 4 to limit the scope of incidental take prohibitions based on geography would impose a small but potential legal burden to point source emitters of greenhouse gases throughout the United States, which could be subjected to citizen suits with no benefit to the species.	Significant Beneficial effect - Paragraphs 1 through 3 of the 4(d) rule would align the ESA with current MMPA and CITES provisions, obviating the need to apply for additional, redundant permits under the ESA. Limiting ESA incidental take prohibition to U.S. activities within the current range of the polar bear would disallow potential citizen suits for incidental take, primarily for point source emitters of greenhouse gases. Given the burden of proof required, such suits pose a small but potential legal burden to greenhouse gas emitters with no benefit to the species.	Significant Beneficial effect - Paragraphs 1 through 3 of the 4(d) rule would align the ESA with current MMPA and CITES provisions, obviating the need to apply for additional, redundant permits under the ESA. Limiting ESA incidental take prohibition to U.S. activities within Alaska would disallow potential citizen suits for incidental take, primarily for point source emitters of greenhouse gases. Given the burden of proof required, such suits pose a small but potential legal burden to greenhouse gas emitters with no benefit to the species.	Slight Beneficial effect. Paragraphs 1 through 3 of the 4(d) rule would align the ESA with current MMPA and CITES provisions, obviating the need to apply for additional, redundant permits under the ESA. Given the burden of proof required, lack of a paragraph 4 to limit the scope of incidental take prohibition based on geography would impose a small but potential legal burden to point source emitters of greenhouse gases throughout the United States, which could be subjected to citizen suits with no benefit to the species.

Table 2. Summary of the Environmental Consequences of each of the Four Alternatives (page 3 of 3)

Resource	Alternative 1: No Action (full ESA protections; no 4(d) Rule)	Alternative 2 (preferred alternative): December 2008 Final Rule with exemption from ESA incidental take prohibition for activities outside polar bear range	Alternative 3: Interim 4(d) Rule of 5/15/2008 with exemption from ESA incidental take prohibition for activities outside Alaska	Alternative 4: 4(d) Special Rule with no geographic exemption from ESA incidental take prohibitions
SocioEconomic - Continued availability for subsistence use	Slight Negative effect. Biological benefits of a rule that promotes conservation of the polar bear, such as the continued ability to haze bears, would not be realized. Reduced bear numbers could result in reduced availability of polar bears for subsistence uses among Native peoples of Alaska and adjoining Arctic countries.	Slight beneficial effect. Successful programs currently in place under MMPA would continue. Hazing bears protects both people and bears. Enhanced polar bear survival would result in more bears contributing to the population and continued availability of polar bears for subsistence uses among Native peoples of Alaska and adjoining Arctic countries.	Slight beneficial effect. Successful programs currently in place under MMPA would continue. Hazing bears protects both people and bears. Enhanced polar bear survival would result in more bears contributing to the population and continued availability of polar bears for subsistence uses among Native peoples of Alaska and adjoining Arctic countries.	Slight beneficial effect. Successful programs currently in place under MMPA would continue. Hazing bears protects both people and bears. Enhanced polar bear survival would result in more bears contributing to the population and continued availability of polar bears for subsistence uses among Native peoples of Alaska and adjoining Arctic countries.

Table 3: Relative Overall Impact Calculations for Each Alternative

A. Relative values for qualitative environmental impact determinations (unit-less)				
Moderate negative	-10			
Slight negative	-5			
No effect	0			
Slight Beneficial	5			
Moderate beneficial	10			
Significant beneficial	15			
B. Impact Calculations (refer to Table 2)				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Physical Habitat- Sea ice	0	0	0	0
Biological - Ability to haze	-10	10	10	10
Biological - Ability to aid bears	-5	5	5	5
Biological - Range of incidental take prohibitions	0	0	0	0
Socioeconomic-Cultural exchange	-10	10	10	10
Socioeconomic-Registered tannery	-5	5	5	5
Socioeconomic-Admin/legal burden	-10	15	15	5
Socioeconomic-Availability for subsistence	-5	5	5	5
RELATIVE BIOLOGICAL/HABITAT TOTAL IMPACT	-15	15	15	15
RELATIVE SOCIOECONOMIC TOTAL IMPACT	-30	35	35	25
RELATIVE OVERALL TOTAL IMPACT	-45	50	50	40

We prefer alternative 2’s version of a 4(d) special rule. This version of the special rule adopts the existing conservation regulatory requirements under the MMPA and CITES as the primary regulatory provisions for this threatened species. 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 authorized use of marine mammals. It has a beneficial biological impact for polar bears relative to the “no action” alternative, as do alternatives 3 and 4 which were ultimately not selected.

There are a few activities for which the prohibitions under the MMPA are less restrictive than the prohibitions for the same activities under the ESA.

Concerning subsistence use and take for defense of property, for defense of personal safety, and for the welfare of the animal, the MMPA allows a greater breadth of activities than would be allowed under the general ESA threatened species regulations; however, these additional activities clearly provide for the conservation of the polar bear by fostering cooperative relationships with Alaska Natives who participate with us in conservation programs for the benefit of the species, limiting lethal or injurious human-bear interactions, and providing immediate benefits for the welfare of individual animals. Thus, the need for a special rule containing paragraphs 1 through 3, which are essentially equivalent within alternatives 2, 3, and 4, is clear. We consider alternative 1, which would consist of not establishing a special rule, to be the least desirable of the four alternatives considered in this document. Alternative 1 would result in additional regulatory bureaucracy and in detrimental outcomes to Alaska Native subsistence, community safety, and the safety of bears – all without providing any additional conservation benefit to the polar bear.

Alternatives 2 and 3 contain a fourth paragraph that limits the geographic range of the incidental take prohibition under the ESA. Of these two alternatives, we consider alternative 2 to be superior to alternative 3, because the geographic range to which incidental take prohibitions under the ESA apply in alternative 2 (the current range of the polar bear) is more obviously linked to the geographic location of polar bears than that of alternative 3 (Alaska). The geographic area specified within paragraph (4) of alternative 2 more clearly includes land or water that is subject to the jurisdiction or sovereign rights of the United States (including portions of lands and inland waters of the United States, the territorial waters of the United States, and the United States' Exclusive Economic Zone or the limits of the continental shelf) than does alternative 3's "Alaska".

Alternative 4 differs from alternatives 2 and 3 in that it does not contain a paragraph 4, which would limit the geographic extent of incidental take prohibitions under the ESA. An exemption from incidental take prohibitions under the ESA based on the geographic location of the activity would neither detract from nor benefit polar bear conservation, given the fact that non-authorized incidental take remains prohibited under the MMPA.

The Service has chosen alternative 2 because it provides appropriate protections for the conservation of the polar bear without imposing a potential legal, financial and regulatory burden on the public, which would have little or no conservation benefit.

The special rule adopts a regulatory framework that is most sensible and effective for a wide variety of stakeholders who are co-located with polar bears and must co-exist with them, including Alaska Natives, communities, and regulated industries within the range of the polar bear.

CONSULTATION AND COORDINATION

Primary Preparers of this EA:

Charles Hamilton – Biologist, Marine Mammals Management Office, Alaska Regional Office

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Contributing Service staff:

Terry DeBruyn – Polar Bear Biologist, Marine Mammals Management Office

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Sonja Jahrsdoerfer – Endangered Species Coordinator, Alaska Regional Office

Tribal Consultation:

Consistent with our responsibility to meaningfully communicate with Federally recognized tribes on a government-to-government basis, we contacted and provided opportunity for formal consultation with 52 Alaska Native tribes and Alaska Native corporations as the draft EA was being prepared. These consultations are detailed in Appendix A of this EA.

Agencies, Organizations and Persons Contacted:

Shortly before the Draft EA and proposed 4(d) special rule were published to the Federal Register on April 19, 2012, we contacted the following Federal and State of Alaska offices or agencies, non-governmental organizations and relevant parties to inform them about the publication, invite their review and comment on the draft documents, and offer our availability to discuss the drafts upon request:

Office of the Honorable Mark Begich, U.S. Senate

Office of the Honorable Lisa Murkowski, U.S. Senate

Office of the Honorable Don Young, U.S. House of Representatives

Office of Kim Elton, Senior Advisor to the Secretary for Alaska, U.S. Dept. of the Interior

Office of Pat Pourchot, Special Assistant to the Secretary for Alaska, U.S. Dept. of the Interior

Office of James Balsiger, Regional Administrator, National Marine Fisheries Service

Dr. Leslie Holland-Bartels, Director, Alaska Biological Science Center, U.S. Geological Survey

Office of Sue Masica, Regional Director, National Park Service

Office of Bud Cribley, State Director, Bureau of Land Management

Office of Dr. James Kendall, Acting Regional Director, Bureau of Ocean Energy Management, Regulation and Enforcement

Office of the Honorable Sean Parnell, Governor, State of Alaska

Office of Cora Campbell, Commissioner, Alaska Dept. of Fish and Game

Office of the Honorable Charlotte Brower, Mayor, North Slope Borough

Office of Dianne Soderlund, Director, Alaska Operations, Environmental Protection Agency

Office of Colonel Reinhard W. Koenig, Commander of Alaska District, U.S. Army Corps of Engineers

Office of Rear Admiral Thomas P. Ostebo, Commander, 17th District, U.S. Coast Guard

Dr. Tim Ragen, Executive Director, Marine Mammal Commission

Office of Terry Whitledge, Director, Institute of Marine Science, University of Alaska Fairbanks

Mr. Charlie Johnson, Executive Director, Alaska Nanuuq Commission

The Alaska Oil and Gas Association

Center for Biological Diversity

Defenders of Wildlife

Greenpeace, Inc.

Sierra Club

Chief Executive Officer, Oceana

World Wildlife Fund

RESPONSE TO COMMENTS ON THE DRAFT EA

During the public comment period for the draft EA and the proposed special rule, which occurred from April 19, 2012 through June 18, 2012, the Service received comments on both documents. Comments directed at both documents were influential in guiding our re-analysis of the environmental impacts of each alternative, and our subsequent revision of the EA. However, in this section we are only responding to comments specifically directed at the EA. Responses to comments directed at the proposed rule are contained within the Final 4(d) special rule, which is being published in the Federal Register.

Comment 1: On the issue of whether the Service should issue a Finding of No Significant Impact (FONSI) or prepare an Environmental Impact Statement (EIS), commenters disagreed. Some stated that the proposed action was not a major Federal action that may significantly affect the human environment. Others commented that the Service should prepare an Environmental Impact Statement for the proposed 4(d) special rule for the following reasons:

1. The rule is “highly controversial”;
2. The rule will have adverse effects on a threatened species and its habitat; and
3. Other significant factors exist to warrant an EIS including the following: (i) the rule “threatens a violation of Federal” law because it does not provide for the conservation of

the polar bear; (ii) the rule “threatens a violation of Federal law” because it violates the constitutional separation of powers doctrine, (iii) the rule “establishes a precedent for future actions with significant effects”; and (iv) the rule significantly “affects public health or safety.”

Response: We disagree with the need for an EIS. The Service examined the full range of factors relevant to a determination of whether the 4(d) special rule might significantly affect the quality of the human environment, and thus require an EIS. As detailed in our Finding of No Significant Impact (FONSI), we determined that preparation of an EIS was not warranted.

Our analysis of public comment has revealed that the most controversial issue regarding the 4(d) special rule concerns the primary threat to the polar bear (sea-ice loss related to climate change), and whether/how climate change should or should not be addressed by a 4(d) special rule.

Although we do not agree that the issue triggers a need for an EIS, we acknowledge that there is political controversy generally regarding the interpretation of climate science data, especially regarding the causes of climate change, projected future rates of climate change-related impacts, and potential mitigation strategies.

With regard to statements regarding adverse impacts or failure to benefit polar bear conservation, we disagree. The final 4(d) special rule and this EA both explain in detail how a 4(d) special rule in general, and the final 4(d) special rule in particular, are beneficial to the polar bear in several important respects. By maintaining the MMPA and CITES as the primary regulatory framework for polar bear conservation, management programs beneficial to the conservation of the polar bear in the United States and currently operating under MMPA authorizations or exemptions would continue. The MMPA-specific authorizations have proven to be successful in preventing

injury and death to humans and greatly minimizing injury and death to polar bears, and have provided for the conservation of the polar bear by allowing non-lethal techniques to deter bears from property and away from people before situations escalate, thereby preventing unnecessary injury or death of polar bears. Current MMPA exemptions also enable authorized persons to aid an entangled marine mammal, such as a polar bear, to prevent injury or death of the animal, whereas the ESA would only enable certain Federal or State representatives to render such aid without additional authorization. Further, the Service recently codified guidelines under the MMPA (50 CFR 18.34) for the public that set forth best practices for safely and non-lethally deterring polar bears from damaging private and public property and endangering the public. All activities that may cause incidental take of polar bears will continue to be reviewed and analyzed under the MMPA to ensure that they would not cause more than a “negligible impact” at the species or stock level before being authorized

Regarding the concerns listed in part 3 of this comment: (1) There is no violation of Federal law. The proposed alternative, which is now the preferred alternative, was challenged in Federal court and found to be legally sufficient under the legal standards of the ESA and the APA. (2) There is no Constitutional separation of powers violation. As we have explained, in section 4(d) of the ESA, Congress specifically left it to the discretion of the Service (as delegated by the Secretary) to develop threatened species rules that are necessary and advisable to provide for the conservation of the species, and to include—or not include—prohibitions from section 9(a)(1) of the ESA as appropriate. There is no legal requirement to include all, or any particular, prohibitions from section 9(a)(1) of the ESA. The ability to bring a citizen suit against parties other than the Service flows from showing that a person or entity has violated a provision of the ESA or any regulation issued thereunder. Thus, the ability to bring such citizen suits for

threatened species flows largely from those prohibitions that the Service has decided to include within a 4(d) special rule, not an independent right to sue under the ESA. And the decision on which provisions should be included within a special rule under section 4(d) of the ESA is driven by the conservation needs of the species and appropriate section 9(a)(1) prohibitions, not the interests in certain groups in bringing lawsuits. (3) The rule does not establish any precedent for future actions. As explained in the final rule and in the EA, the Service determines on a case-by-case basis the management needs for each threatened species under section 4(d) of the ESA. In many cases, the prohibitions and authorizations found at 50 CFR 17.31 and 17.32 are appropriate for the species. But the Service may also determine that it should develop specific prohibitions and exceptions that are tailored to the specific conservation needs of the species. Thus no special rule for a particular species sets a precedent for other threatened species under section 4(d). (4) The proposed action is not expected to have any adverse impact on public health or safety. On the contrary, the proposed action is more protective of public health and safety than is the “no action” alternative. The rule enables the Service to continue MMPA-specific authorizations that have proven to be successful in preventing injury and death to both humans and polar bears, and allow non-lethal techniques to deter bears from property and away from people before situations escalate into more dangerous situations, potentially culminating in the death of a human or polar bear. Thus, the proposed action promotes public safety, and will have a beneficial public health impact on communities and regulated industries that are co-located with polar bears. Although the rule provides for use of several measures that will reduce mortality and increase safety for both bears and people, none of these measures are new. The rule simply ensures that these measures that have been in place under the MMPA, most of them since 1972, will continue uninterrupted with the listing of the polar bear under the ESA.

Comment 2: The Service should have considered alternatives that would *increase* protections for the polar bear via measures to mitigate climate change.

Response: We disagree. The Service considered a reasonable range of alternatives. The ESA is not the appropriate tool to set U.S. climate policy; it neither allows nor requires the Service to make such interventions. Nothing within the scope of the Service’s authority under section 4(d) of the ESA can mitigate climate change-related impacts to polar bear habitat. The regulation of greenhouse gas emissions are the purview of Congress and the U.S. Environmental Protection Agency to address.

Comment 3: The Service should have considered a broader range of alternatives.

Response: We disagree. While there is no difference in environmental impacts between the various alternatives with respect to the physical environment (sea ice), there are significant differences between the various alternatives with respect to both biological impacts and socioeconomic impacts. In this NEPA analysis, the Service has considered the full range of reasonable alternatives for a 4(d) special rule. As explained in Issue #2, the Service does not have the authority under the ESA to regulate greenhouse gas emissions.

Comment 4: The Service failed to take a “hard look” at the impacts of the proposed rule; specifically, at its conclusion that “current scientific capabilities” bar linking facilities’ greenhouse gas emissions to the take of polar bears or effects on their habitat.

Response: If, in the future, improved technologies enable the causal connection of greenhouse gas emissions from a given source to the take of polar bears with reasonable certainty, the 4(d) special rule would not have consequences for the polar bear's sea ice habitat. Regardless of the presence or absence of a 4(d) special rule, the incidental take of polar bears is still prohibited under the MMPA and would be a violation of that law, regardless of where the activity occurred, unless the activity had been authorized under the MMPA. The MMPA violation would be pursued by the Federal government via appropriate enforcement actions. Violators would be subject to the full array of the MMPA's civil and criminal penalties. If the activity causing the incidental take had not been authorized under the MMPA or the operator was conducting the activity inconsistently with their MMPA authorization, then the ESA penalties would apply also depending on the location of the activity under the different alternatives.

Comment 5: The NEPA document should explicitly address environmental justice issues related to the proposed rule.

Response: We have added a paragraph to discuss the potential for each alternative to have disproportionately high and adverse impacts on low income or minority populations, in the "Environmental Consequences – Socioeconomic Environment" section above.

Comment 6: The NEPA document mischaracterized the "no 4(d) rule" alternative as the "no action alternative"; instead, the "no action alternative" should have been the interim 4(d) special rule currently in effect.

Response: We disagree. On October 17, 2011, the U.S. District Court for the District of Columbia (DC District Court) ruled that the Service erred when it failed to conduct a NEPA analysis prior to promulgating its final 4(d) special rule on December 16, 2008. When the DC District Court ordered the Service to conduct a NEPA analysis and new rulemaking, it reinstated the interim 4(d) special rule, but only until the interim 4(d) special rule would be superseded by a new special rule.

No NEPA analysis was conducted for the interim 4(d) special rule. Further, under the Court's order the Service does not have the option to keep the interim 4(d) rule in place without further consideration and a new rulemaking process; hence the interim 4(d) special rule is not a true "no action" alternative.

The Service conducted its NEPA analysis as the Court inferred it should have, which was before any 4(d) special rule had been promulgated. Thus, our "no action" alternative consisted of the absence of a 4(d) special rule.

We acknowledge the potential confusion that might be caused by this unusual situation, where the "no action" alternative does not represent the current-day status quo. To provide additional clarity, we have added an explicit discussion of our approach to the final EA.

Comment 7: The NEPA document should include a discussion of cumulative impacts.

Response: A discussion of cumulative impacts has been added to the Environmental Consequences chapter of this EA.

Comment 8: Table 2 of the NEPA document should include a consistent magnitude rating for the impacts associated with each resource and alternative.

Response: Table 2 has been updated to include an indication of the relative magnitude of the impacts associated with each resource and alternative (slight<moderate<significant).

Comment 9: The Service should more clearly express what the agency has considered and found with regard to climate change.

Response: The Service acknowledges that climate science is an active area of current research, and our understanding of the causes, timing and scope of environmental impacts related to climate change is rapidly evolving. In the process of evaluating alternatives, we determined that an exhaustive analysis of all the current scientific literature regarding climate change and sea ice habitat would not change the analysis fundamental to our decision about the 4(d) special rule. Rather than turn on whether new scientific information supports a causal linkage between specific emissions and incidental take of polar bears, our analysis focuses on the regulatory consequences of either scenario – whether causal linkage is established or not in the future. In either case, we found that the MMPA provides sufficient regulatory and enforcement protection.

Comment 10: The EA should address the effects that paragraph 4 would have on the Service's ability to apply its ESA section 10 permit program to reduce greenhouse gas emissions.

Response: Under any of the alternatives, non-Federal entities that conclude their activities may cause the incidental take of one or more polar bears need to either modify those activities to

avoid the incidental take or obtain authorization for that incidental take under the MMPA to avoid a violation of the MMPA. Such entities could seek authorization for incidental take under the MMPA via incidental take regulations or an incidental harassment authorization. Under alternatives 2, 3 or 4, through the operation of paragraph 2 of the special rules if the entities receive MMPA incidental take authorization and conduct their activities consistent with the conditions of that authorization, they would not need additional authorization under 50 CFR 17.32(b) (the equivalent of section 10 of the ESA for threatened species). Alternatives 2, 3 and 4 would negate the need for an ESA incidental take permit in addition to an MMPA incidental take authorization; the presence or absence of a paragraph (4) within the 4(d) special rule is not relevant to this issue.

Comment 11: The Service should explain how the organization and analysis in EA was identified as the best approach for addressing direct, indirect, and cumulative impacts of alternatives.

Response: A new section entitled “Organization of Document” was added to the EA in response to this comment.

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APPENDIX A – TRIBAL CONSULTATION REPORT

In accordance with the President’s memorandum of April 29, 1994, Government-to-Government Relations with Native American Tribal Governments (59 FR 22951), E.O. 13175, and the Department of the Interior’s manual at 512 DM 2, we acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3225 of January 19, 2001 [Endangered Species Act and Subsistence Uses in Alaska (Supplement to Secretarial Order 3206)], Department of the Interior Memorandum of January 18, 2001 (Alaska Government-to-Government Policy), Department of the Interior Secretarial Order 3317 of December 1, 2011 (Tribal Consultation and Policy), and the Native American Policy of the U.S. Fish and Wildlife Service, June 28, 1994, we acknowledge our responsibilities to work directly with Alaska Natives in developing programs for healthy ecosystems, to seek their full and meaningful participation in evaluating and addressing conservation concerns for listed species, to remain sensitive to Alaska Native culture, and to make information available to Tribes.

On January 18, 2012, we contacted the 52 Alaska Native Tribes (ANTs) and Alaska Native Corporations (ANCs) which are, or may be, affected by the listing of the polar bear as well as the development of any special rule under section 4(d) of the ESA. Our January 18, 2012, correspondence explained the nature of the Federal Court’s remand and the Service’s intent to consult with affected ANTs and ANCs. Our correspondence further informed the ANTs and ANCs that we intended to hold two initial consultation opportunities on January 30, 2012, and on February 6, 2012, during which we would answer any questions about our intention to propose a special rule for the polar bear, as well as take any comments, suggestions or recommendations participants may wish to offer. Subsequently, during the week of January 23, 2012, we

contacted ANTs and ANCs by telephone to further inform them of the upcoming opportunities for consultation.

During the consultation opportunities held on January 30, 2012 and February 6, 2012, the Service received one recommendation from ANTs and ANCs regarding the development of a 4(d) special rule for the polar bear; that recommendation urged the Service to continue to provide information on the development of any proposed rule to the affected public. Consistent with this request from the Alaska Native community, on May 2, 2012, the Service again wrote to Alaska Native tribal governments and Corporations informing them of the publication of the proposed rule and draft EA and further seeking their input as the Service considered its options finalizing this rule. The Service received one comment from an Alaska Native Corporation in response to this further request. On June 18, 2012, the Arctic Slope Regional Corporation wrote to the Service expressing their support for the proposed special rule, In their correspondence the Arctic Slope Regional Corporation noted their belief that: 1) the Special Rule reflects the appropriate finding that the extensive conservation provisions in the MMPA and CITES are the necessary and advisable measures for the conservation of the polar bear; 2) the current management provisions and protections will adequately protect both the polar bear and the continued ability of Alaska Natives to maintain their current lifestyle and cultural heritage; and, 3) cultural exchange activities involving import and export of marine mammals parts and products, including from the polar bear, are a critically important component of Alaska Natives' lifestyle and cultural heritage, preserving the ability of Alaska Natives to continue to participate in these activities "uninterrupted" -- as envisioned in the Special Rule -- is both necessary and appropriate. In its comment letter to the Service, the Arctic Slope Regional Corporation also raised concerns regarding a possible up-listing of the polar bear from CITES Appendix II to CITES Appendix I.

That issue is beyond the scope of this rulemaking, but the Service considered this comment as it deliberated potential proposals for the next meeting of the Conference of the Parties to CITES.