



Draft

Environmental

Assessment

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

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EXECUTIVE SUMMARY

The U.S. Fish and Wildlife Service (Service) proposes to promulgate a rule under section 4(d) of the Endangered Species Act (ESA) (“special rule”) to provide measures that are necessary and advisable for the conservation of the polar bear (*Ursus maritimus*) and to prohibit by regulation with respect to the polar bear certain acts prohibited in section 9(a)(1) of the ESA, which became listed as a threatened species on May 15, 2008. The proposed special rule, in most instances, 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 appropriate 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, this proposed special rule 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. This proposed 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 proposed special rule affects the consultation requirements under section 7 of the ESA.

The proposed alternative (alternative 2) would have beneficial effects for polar bears, Alaska Native communities and oil and gas exploration and development activities within the polar bear’s range. By maintaining the MMPA and CITES as the regulatory framework for polar bear conservation, several beneficial programs currently operating under MMPA authorizations could

continue without imposing additional bureaucratic hurdles under the ESA. These programs provide authorization for local communities and the oil and gas industry to non-lethally haze problem bears away from potentially dangerous situations. Inability to haze problem bears due to ESA restrictions could promote escalation of bear-human encounters into more dangerous situations, potentially culminating in the death of a polar bear or a human. Current MMPA authorizations also enable any person to aid an entangled marine mammal for the health or welfare of the animal, whereas the ESA would only enable federal or state representatives to render such aid. Further, the Service recently published guidelines (75 FR 61631) 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 a special rule, a person following the guidelines at 75 FR 61631 would no longer be protected from potential prosecution should the taking of a polar bear occur pursuant to implementing the guidelines.

The proposed 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 practice subsistence as provided under ESA's section 10(e) is preserved. The proposed alternative also limits the geographic range over which certain activities would be prohibited 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.

Furthermore, other requirements will continue to apply to activities outside of the current range of the polar bear, such as ESA Section 7 consultation requirements and MMPA requirements.

In addition to the proposed 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 protections for threatened wildlife provided under 50 CFR 17.31 and § 17.32, which incorporate in large part the provisions of 50 CFR 17.21, 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 for threatened wildlife provided under 50 CFR 17.31 have never been applied to the polar bear. Thus, implementation of the “no action” alternative would cause a shift from the environmental and social baseline within the range of the polar bear.

The “no action” alternative could have negative biological consequences for the polar bear, because communities would have fewer tools with which to prevent potentially lethal polar bear/human interactions, or to come to the aid of an entangled polar bear. This alternative would have a detrimental socioeconomic impact on Alaska Natives, because international cultural exchange of polar bear handicrafts between Natives from Alaska and Natives from Russia, Canada and Greenland would be hampered or curtailed.

It would also be more difficult for Alaska Natives to participate in subsistence as provided under ESA Section 10(e) because 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 ESA Section 9 prohibitions on top of existing MMPA and CITES provisions, this alternative could create administrative and legal burdens on the regulated public, industry, Alaska Natives, non-profit organizations and the Service, all for little or no additional protection of polar bears.

- ***Alternative 3 (Interim 4(d) Special Rule published in the Federal Register May 15, 2008)***. This alternative is similar to the proposed alternative, in that both versions of the special rule adopt the existing conservation regulatory requirements under the MMPA and CITES as the appropriate regulatory provisions for the polar bear. There is only one substantive difference between alternative 3 and the proposed alternative. This interim 4(d) special rule provides that incidental take of polar bears resulting from activities that occur *outside Alaska* is not prohibited under the ESA. Thus, the geographic range of the incidental take exemption under the ESA is the distinguishing factor between alternative 3 (exemption applies to activities “outside Alaska”) and the proposed alternative (exemption applies to activities “outside the current range of the polar bear”).

This interim 4(d) special rule has been in effect since the U.S. District Court for the District of Columbia (DC District Court) ruled to vacate 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 2 and Alternative 3 both provide similar benefits, the proposed alternative more precisely delineates the geographic range over which the ESA prohibition against incidental take is appropriate. Under paragraph (4) of the proposed special rule, 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 the State of Alaska). The geographic area specified within paragraph (4) of the proposed rule 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 of the State 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 Alternative 2, and 3, Alternative 4, adopt the existing conservation regulatory requirements under the MMPA and CITES as the appropriate regulatory provisions for the polar bear. However, unlike Alternative 2 and Alternative 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. This comprehensive geographic

coverage of ESA section 9 protections under alternative 4 could provide a biological benefit over alternatives 2 or 3, in the remote circumstance that an activity outside the designated geographic range (“current range of the polar bear” for alternative 2, or “State of Alaska” for alternative 3) results in incidental take of a polar bear.

Alternative 4 provides most of the same benefits as the proposed alternative. Arguably, alternative 4 might impose more of a socioeconomic burden on American society than the proposed alternative, because activities outside polar bear range (proposed rule) or the State of Alaska (alternative 3) 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) the MMPA’s prohibition on take has no geographic limitation; violations of the take provision would 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 (proposed rule) or the State of Alaska (alternative 3) is remote.

INTRODUCTION

On May 15, 2008, the U.S. Fish and Wildlife Service (Service) published a final rule to list the polar bear as a threatened species throughout its range (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 with respect to the polar bear 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 species. That is, all prohibitions and protections 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 section 17.32, permits may be issued to allow persons to engage in otherwise prohibited acts.

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. When listing the polar bear as a threatened species under the ESA on May 15, 2008, Secretary Kempthorne exercised his discretion under 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 with respect to the polar bear 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 found the Service violated the National Environmental Policy Act (NEPA) and the Administrative Procedure Act 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 the final 4(d) special rule 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 (*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 U.S. Fish and Wildlife 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) shall 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 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 appropriate regulatory provisions in most instances; (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 protections 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, activities that cause incidental take are only prohibited under ESA §17.31 when they occur within the State of Alaska (everything outside the State is excluded); under the final 4(d) special rule, the §17.31 incidental take prohibition would apply only to activities within the current range of the polar bear.

This Environmental Assessment (EA) analyzes the environmental consequences of the Service's proposed alternative, of two alternative special rules, and of having no special rule in place (the "No Action" alternative). The draft EA is being released concurrently with our draft proposed 4(d) rule, both of which will be available for a 60-day public comment period.

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.

The Service compared the protections the polar bear would receive under the ESA 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 sections 17.31 and 17.32. There are, however, a few elements of ESA protections 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 such products, there is no similar provision for export, thus limiting their ability to engage in cultural exchanges.

The Service has determined that it was also necessary to align the ESA take prohibitions with those of the MMPA. In 1994, the MMPA was amended to provide an exception to otherwise prohibited acts, allowing the use of 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]. These acts of deterrence must not result in the death or serious injury of a marine mammal. The Service had been providing authorization under the MMPA for specified individuals to deter polar bears on an as-needed basis. The purpose of the

authorization was 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. Further, the Service recently published guidelines (75 FR 61631) 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. A special rule is needed to enable the Service to continue to authorize nonlethal measures to deter polar bears under appropriate situations and therefore avoid interactions with people. Because prohibitions under the ESA include acts of harassment to protected species, without a special rule such deterrence measures otherwise available to the public would no longer be allowed without the issuance of permits. A person following Service guidelines would no longer be protected from potential prosecution should the taking of a polar bear occur pursuant to implementing the guidelines without a threatened species permit.

The Service also detected a need to clarify the scope of regulatory authority afforded it under the ESA with regard to incidental take from activities outside the range of the polar bear, primarily related to greenhouse gases. 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, there was concern that individual facilities that emit greenhouse gases might be subject to citizen suits under the ESA. The Service found that exempting incidental take from activities outside the range of the polar bear from the prohibitions of the Act to be consistent with the conservation of the polar bear because: (1) the potential for citizen suits alleging take resulting from activities outside of the range of the polar bear is significant; (2) the likelihood of such suits prevailing in establishing take of polar bears is

remote; and (3) defending against such suits will divert available staff and funding away from productive polar bear conservation efforts.

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 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 gather their input. Appendix A provides a description of the tribal consultation process, summarizes the input we received from Alaska Native tribes, 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 substantive information provided during the public comment period was considered. Some of the information was incorporated into the final 4(d) special rule, while other

comments were consolidated into key issues and discussed in the final 4(d) special rule published in the Federal Register on December 16, 2008. These consolidated comments and responses were reviewed and considered again during the preparation of this draft EA.

In order to provide opportunity for public involvement, the Service's proposed 4(d) special rule for the polar bear, published concurrently with this draft EA, invites public comment on both documents. Comments received during the concurrent public comment period will be analyzed, and either incorporated or responded to in the final EA and final 4(d) special rule.

The Service is aware that this special 4(d) rulemaking is of interest to a range of stakeholders, including the State of Alaska, Alaska Natives and Alaska Native organizations, the oil and gas industry, non-governmental organizations, and the regulated public. A formal public scoping process is not required as part of an EA, in contrast to the Environmental Impact Statement process. The Service acknowledges that a public scoping process would be a desirable element of this particular EA due to the large amount of public interest surrounding polar bears.

Unfortunately, the Service is under a Court order to complete this NEPA process within a short timeframe that is not conducive to a formal NEPA scoping process. However, since we have previously received voluminous public comments on the polar bear ESA listing and interim 4(d) special rule and we are familiar with the position of many key stakeholders through their legal filings in the listing and 4(d) cases, the Service has gained a basic understanding of many of the opinions and concerns of stakeholders, and these were considered during the drafting of this EA. Additional concerns may be raised and responded to during the 60-day public comment period.

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, all prohibitions and protections for threatened wildlife provided under 50 CFR 17.31 and § 17.32, which incorporate in large part the provisions of § 17.21, 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 prohibitions for threatened wildlife provided under 50 CFR 17.31 and § 17.32 have never been applied to the polar bear. Thus, implementation of the “no action” alternative would actually cause a shift from the environmental and social baseline within the range of the polar bear.

Alternative 2 – Proposed Alternative

Rule is the Final 4(d) Special Rule published in the Federal Register on December 16, 2008

This 4(d) rule, in most instances, adopts the existing conservation regulatory requirements under the MMPA and CITES as the appropriate 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 *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 Alaska. Further, nothing in this special rule affects the consultation requirements under section 7 of the ESA.

Alternative 3

Rule is the Interim 4(d) Special Rule published in the Federal Register on May 15, 2008

This alternative is similar to alternative 2, in that both versions of the special rule adopt the existing conservation regulatory requirements under the MMPA and CITES as the appropriate 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 *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 “outside Alaska”) and alternative 2 (exemption applies to activities “outside the current range of the polar bear”).

This interim 4(d) special rule has been in effect since the Court ruled to vacate 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

Rule is the Same as the Final 4(d) Special Rule, but without the provisions of Paragraph 4

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

Unlike alternatives 2 and 3, however, alternative 4 does not contain a provision to expressly exempt take resulting from activities in any geographic areas from the prohibitions in §17.31 of the ESA implementing regulations regarding incidental taking of polar bears.

Table 1. Summary of Actions by Alternative

Alternative	Regulatory Framework for polar bear	Geographic Exemption Area for Incidental Take Prohibition
1 - "No Action" alternative – No 4(d) Rule	ESA, MMPA and CITES	None
2 – Proposed alternative - Final 4(d) special rule (December 16, 2008; 73 FR 76249)	MMPA and CITES	Outside current range of the polar bear
3 - Interim 4(d) special rule (May 15, 2008; 73 FR 28306)	MMPA and CITES	Outside Alaska
4 - Final 4(d) special rule of 12/16/2008, without paragraph 4	MMPA and 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, 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).

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, 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 Marine Mammal Protection Act, 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). Critical habitat identifies geographic areas that contain features essential for the conservation of a threatened or endangered species, and that may require special management or protection. The designation of critical habitat under the ESA does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Likewise, designation of critical habitat does not allow government or public access to private lands. A critical habitat designation does not affect private lands unless federal funds, permits, or activities are involved. 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.

The Service designated critical habitat in three areas or units: barrier island habitat, sea ice habitat (both described in geographic terms), and terrestrial denning habitat (a functional determination). Barrier island habitat includes coastal barrier islands and spits along Alaska's coast, and is used for denning, refuge from human disturbance, access to maternal dens and feeding habitat, and travel along the coast. Sea ice habitat is located over the continental shelf, and includes water 300m or less in depth. Terrestrial denning habitat includes lands within 32 km of the northern coast of Alaska between the Canadian border and the Kavik River, and within 8 km between the Kavik River and Barrow. The total area designated covers approximately 187,157 square miles, and is entirely within the lands and waters of the United States.

Polar bear habitat in the Beaufort Sea is described in detail in the final rule that designated polar bear critical habitat (75 FR 76086; December 7, 2010). A detailed description of polar bear habitat can be found at:

http://alaska.fws.gov/fisheries/mmm/polarbear/pdf/federal_register_notice.pdf.

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, 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 above, 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 for 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 the 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 ice 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 CFR 47037).

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 CFR 47036).

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 1300 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 threatened, range-wide, under the Endangered Species Act on May 14, 2008 due to loss of sea ice habitat caused by climate change (73 FR 82212). Additional stressors evaluated during the listing 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 which 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 passed a resolution to become a member and to authorize 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, Diomedede, 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 walruses and 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 Bilateral Agreement (Chukchi/Bering Seas region).

On May 8, 2008, Secretary 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; 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 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. Adherence to the quota is voluntary in the United States, and it has generally been followed since implementation of the Inuvialuit-Inupiat Agreement (Brower et al. 2002). 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.

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 “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,” signed in Washington, D.C., on October 16, 2000 (Bilateral Agreement). 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 on 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, reaffirmed the total allowable harvest of 58 polar bears from the Alaska-Chukotka population, and 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 next Commission in June 2012 will include discussion of the 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 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 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 et al. 2007).

To minimize the disturbance of polar bears by industrial activities, the USFWS manages the Incidental and Intentional Take Program. USFWS implements Incidental Take Regulations (ITRs) under Section 101(a)5(A) of the U.S. Marine Mammals Protection Act (MMPA).

Currently, the oil and gas industry has been the only “citizen group” to request incidental take authorization for polar bears. The Service administers the Incidental Take Program through Letters of Authorization (LOAs) that enable polar bear managers 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 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 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 level of activity continues to have no more than a negligible impact on polar bears and their availability for subsistence uses.

The Service also issues intentional take authorizations under sections 101 (a)(4)(A), 109(h), and 112(c) of the MMPA, which can authorize citizens to take polar bears by harassment (non-lethal deterrence activities) for the protection of both human life and polar bears while conducting activities in polar bear habitat. The USFWS 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, local North Slope communities, 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 disturbance to 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. Although greenhouse gases are an important contributor to global climate change, the best scientific data available today do not allow us to draw a causal connection between greenhouse gas emissions from a given facility and effects posed to specific polar bears or their critical sea ice habitat. Thus, a proposed action that will involve the emission of greenhouse gas from a given facility cannot currently be linked to the incidental take of a polar bear or effects on its critical habitat. This basic fact holds true regardless of the presence or absence of a 4(d) special rule. Thus, **the implications of each alternative are currently the same for arctic sea ice.** None of the alternatives provide a mechanism for the ESA to regulate point sources of greenhouse gas pollution, given the current state of the science. Likewise, none of the alternatives differ in their consultation requirements under section 7 of the ESA, which remain in full force under all alternatives.

If, in the future, improved technologies enable the causal connection of greenhouse gas emissions from a given facility to the take of polar bears with reasonable certainty, the four alternatives could have different consequences for the physical environment. Under all four alternatives, the agency action would be subject to consultation requirements under section 7 of

the ESA. Under alternatives 1 or 4, the incidental take of a polar bear would also be a prohibited activity under Section 9 of the ESA, regardless of the geographic area where the facility was located. Under alternatives 2 or 3 the activity would only be a prohibited activity under the ESA if it occurred within the current range of the polar bear or the State of Alaska, respectively. However, under any of the alternatives, any incidental take of polar bears covered by the MMPA would be a violation of that law, regardless of where the activity occurred, unless the activity had been authorized under the MMPA. Violators would be subject to the full array of the MMPA's civil and criminal penalties.

Biological Environment

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

Alternative 1 would apply the regulatory framework of the ESA 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 could 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 bear-human encounters into more dangerous situations, potentially culminating in the death of a polar bear or a human.

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 the identity of “qualified persons” to provide for public safety and welfare of the polar bear under the two laws, as well as differences in the mechanisms available to the Service to authorize non-lethal hazing. 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. If the ESA general prohibitions 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 these specific categories of people to carry out the purposes of section 109(h).

The purpose of these authorizations are to allow “take” of polar bears by harassment (non-lethal deterrence activities) prior to a bear-human encounter that would otherwise result in the use of deadly force against a polar bear. These MMPA-specific authorizations have been successful at protecting both communities 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 accidentally 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 the polar bear.

If there were no 4(d) rule in place and the ESA general prohibitions for threatened species were applied to the polar bear, as per alternative 1, 50 C.F.R. §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 manager and agency, the National Marine Fisheries Service, or a State conservation agency, who is designated by the Service for such purposes. However, the ESA regulations do not provide a similar exception to the statute's prohibitions on intentional take for *private* groups 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 C.F.R. §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, the regulatory scheme that would be required under the ESA would necessitate that individual applicants anticipate when they would need an ESA permit authorization. This ESA 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 private individuals and institutions to conduct such activities without being in violation of the general prohibitions for threatened species found in the ESA implementing regulations at 50 C.F.R. §17.31, these persons or groups would have to apply for a permit from the Service under the provisions of 50 C.F.R. §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 authorizations currently in place for the polar bear under 109(h) and 112(c) of the MMPA, subsection 101(a)(4)(A) of the MMPA allows any persons to deter a marine mammal from 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. If alternative 1 were implemented and the applicable ESA prohibitions and authorizations at 50 C.F.R. §17.31 and 50 C.F.R. §17.32 were applied, individuals seeking authorization to conduct these activities would need a permit issued by the Service pursuant to the regulatory provisions for enhancement or special purposes permits found at 50 C.F.R. §17.32. For the reasons detailed above, requiring additional authorizations for activities already strictly regulated under the MMPA would require additional time and expense and impose significant burdens on the regulated community. 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 time needed to obtain such additional ESA permit authorizations.

Alternatives 2, 3 and 4 each designate the MMPA and CITES as the continued regulatory mechanisms to administer conservation and protection programs for the polar bear, while Alternative 1 layers ESA regulatory mechanisms on top of those already in place or required 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 do not allow injury to the bear or killing the bear and could, instead, 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. In addition, if entangled, the safe release of a marine mammal from fishing gear or other debris could prevent further injury or death of the animal.

If there were no 4(d) rule in place and the ESA general prohibitions for threatened species were applied to the polar bear (i.e., alternative 1), 50 C.F.R. §17.31 would provide for similar activities. However, under the ESA those activities could only be conducted by any employee or agent of the Service, any other Federal land manager and agency, the National Marine Fisheries Service, or a State conservation agency, who is designated by the Service for such purposes.

Other types of individuals would not be authorized to come to the aid of an entangled polar bear.

Alternatives 2, 3 and 4 each designate the MMPA and CITES as the continued regulatory mechanisms to administer conservation and protection programs for the polar bear. Any of these three alternatives would empower persons outside of federal and state governments to come to the aid of an entangled polar bear as described above. Thus, alternatives 2, 3 and 4 each provide

for the conservation of polar bears in the event of entanglement with fishing gear or other debris, and could prevent further injury or death of entangled bears.

For obvious safety concerns, the Service does not believe it appropriate for the general public to attempt to disentangle grown polar bears from fishing gear or debris. However, the Service does recognize that there may be certain rare events where this Good Samaritan provision of the MMPA might be of benefit to the species. 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.

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 continued regulatory mechanisms to administer conservation and protection programs for the polar bear, and both contain a fourth paragraph that limits the range over which activities may be prohibited under Section 9 of the ESA, as described above. The only substantive difference between alternatives 2 and 3 is the specific geographic area over which ESA prohibitions, listed at 50 CFR §17.31, apply. In alternative 2, such prohibitions under §17.31 only apply within the current range of the polar bear, whereas in alternative 3 such prohibitions under §17.31 only apply in areas within Alaska.

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 (its current range) rather than on a geopolitical boundary (e.g., the “State of Alaska” specified in alternative 3). Alternative 2 was developed in response to public comment following release of the interim 4(d) special rule on May 15, 2008 (i.e., alternative 3),

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 final 4(d) special rule in order to clarify the geographic area needing protection under the ESA.

Prohibiting incidental take of polar bears from activities that occur within the current range of the species, under 50 C.F.R. 17.31, contributes to conservation of the polar bear. The areas within the current range of the polar bear 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 the high seas. Thus, alternative 2 more adequately provides for the protection and conservation of the polar bear than alternative 3 does, because it more clearly includes all areas within the range of the polar bear that should be subject to the ESA, rather than just the “State of Alaska” (alternative 3), which is more limited geographically and is not biologically based.

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 within a 4(d) special rule, to alternatives 2 and 3, which do. We have determined that the biological implications of the geographic exclusions to incidental take are negligible, as activities in excluded areas (outside the current range of the polar bear or outside the State of Alaska for

alternatives 2 and 3, respectively) are unlikely to result in incidental take of polar bears, and such take is already prohibited under the MMPA.

Socioeconomic Environment

Part 1: Contrasting Alternative 1 – “No Action” – Full Endangered Species Protections overlaid on existing MMPA and CITES protections **to Alternatives 2, 3 and 4**, which all propose a 4(d) special rule to designate the MMPA and CITES as the continued 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 regulatory framework of the ESA 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.

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.

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. If the ESA regulations containing prohibitions and exceptions for threatened species were applied for the polar bear (alternative 1), each export of these products by an Alaska Native would have to be authorized in advance under 50 C.F.R. §17.32. The requirement to obtain a permit under the ESA regulations would take time and create expense for Alaska Native applicants. This authorization would also be subject to an intra-Service consultation pursuant to Section 7 of the ESA on the agency's issuance of such an authorization. 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. In addition, this activity may not qualify for an authorization under 50 C.F.R. §17.32.

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

Issue #2: 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 C.F.R. §§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 ESA regulations containing prohibitions and exceptions for threatened species were applied for the polar bear (alternative 1), the ESA prohibition on the 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 C.F.R. §17.32. However, these activities may not qualify for authorization. Thus, the requirement to obtain additional authorization under the ESA 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 within a 4(d) special rule, to **Alternatives 2 and 3**, which do.

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 lacks a 4(d) rule, and instead applies the ESA general prohibitions for endangered species to the polar bear. In contrast, alternative 4 proposes a 4(d) special rule to designate the MMPA and CITES as the continued regulatory mechanisms for the conservation and protection of the polar bear, but alternative 4's proposed 4(d) rule does not contain a Paragraph 4.

The purpose of Paragraph 4 within either the final or interim 4(d) special rules (alternatives 2 and 3 respectively) is to limit the geographic range over which activities may be prohibited under 50

CFR 17.31 (i.e., ESA Section 9 prohibitions), regarding the taking of polar bears that is incidental to, but not the purpose of, carrying out an otherwise lawful activity within the United States. In alternative 2, such prohibitions under §17.31 only apply within the current range of the polar bear, whereas in alternative 3 such prohibitions under §17.31 only apply within 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.

The primary impact of paragraph 4 (or its absence) is a socioeconomic impact. It is the aim of the Service to administer polar bear conservation and protection in a manner that ensures comprehensive protections for the polar bear; however, the Service finds it inappropriate to impose additional administrative or financial burdens upon the regulated public if the measures are unlikely to actually benefit the polar bear. Paragraph 4 seeks to strike such a compromise, by limiting the potential use of the ESA as a tool to regulate activities that occur in areas outside the geographic range of the polar bear.

To recap, we reiterate that two important provisions 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 Section 7 remain intact under each of the alternatives.

However, there are essentially two potential consequences of Paragraph 4, that most distinguish alternatives 2 and 3 from 1 and 4. These consequences are: (1) the citizen's suit provisions vary between the ESA and the MMPA; and (2) the penalty provisions vary between the ESA and the MMPA. Below we explain each of these consequences in detail.

1) Citizen's suit provisions are different between the MMPA and the ESA

One difference between the MMPA and the ESA is the applicability of the ESA citizen suit provision. Under Section 11 of the ESA, any person may commence a civil suit against a person, business entity, State 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, alternatives 2 or 3 would restrict the entities that could take legal action against the entity causing the take, if the activity happened outside the geographic range specified in Paragraph 4 of the 4(d) rule. Under such circumstances, legal action against the entity causing the take could only be brought by the United States, and not by a private citizen or citizen group. However, even under alternatives 2 or 3, which both contain a Paragraph 4, citizens retain a number of options to pursue legal challenges to activities.

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, regardless of where that activity occurs. Also, any person or entity that is allegedly causing the incidental take of polar bears as a result of activities **within** the geographic range

specified in the 4(d) rule, without appropriate MMPA authorization, can be challenged through the citizen suit provision. The ESA citizen suit provision also remains available for alleged failure of federal agencies to consult the Service under Section 7 of the ESA, 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 Administrative Procedure Act of 1946 (5 U.S.C. 706), which allows challenges to final agency actions.

As explained previously, the Service has concluded that given current scientific capabilities, a proposed action that will involve the emission of greenhouse gas from a given facility cannot be linked to the incidental take of a polar bear or to effects on its critical habitat. Thus, point sources of greenhouse gases should not be subject to prohibitions under the ESA and its implementing regulations given the current state of the science. Thus, the number and viability of ESA-based citizen lawsuits would appear to be limited by the current state of scientific knowledge. To the extent suits might still be initiated, inclusion of a Paragraph 4 within the 4(d) special rule, as in alternatives 2 and 3, would limit the burden of ESA-based citizen lawsuits on point sources of greenhouse gases in areas far removed from polar bears or their habitat. However, if the Service selects and finalizes alternatives 2 or 3 and if, in the future, the state of the science changes such that greenhouse gas emissions from an individual facility could be linked to the incidental take of a polar bear, there would be a rulemaking-related delay associated with repeal or revision of the 4(d) rule before citizens could bring lawsuits against the facility.

2) Penalties for violations are different between the MMPA and the ESA

Any incidental take caused by an activity covered by the MMPA would be a violation of that law 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, and Federal agencies 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 for each violation, imprisoned for up to 1 year, or both.

Because CITES is implemented through the ESA, any trade of polar bears or polar bear parts or products contrary to CITES and possession of any polar bear specimen that was traded 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, certain acts not related to CITES violations also remain subject to the penalties of the ESA. Under paragraph (2) of alternatives 2, 3 or 4, any act prohibited under the MMPA that would also be prohibited under the ESA regulations at 50 CFR 17.31 and that has not been authorized or exempted under the MMPA would be a violation of the ESA as well as the MMPA. 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. While ESA penalties would not apply to any incidental take caused by activities 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 is available 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 available for any other violation. Criminal penalties and imprisonment for up to one year, or both, are also available 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, and Federal agencies, 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 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.

Three Case Studies (to demonstrate consequences under alternatives 2 and 3)

To illustrate the consequences that stem from alternatives 2 and 3 and how the two 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 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 impacts.

Under each of the four alternatives, a federal agency taking action on 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 Section 9 of the ESA. The incidental take would be a Section 9 violation 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 activity under Section 9 of the ESA under alternative 3, however, because the helicopter noise occurs outside the State of Alaska or its jurisdiction. Thus, private citizens would not have access to the citizen suit provision to challenge the ecotourism company for an alleged Section 9 ESA violation under alternative 3. However, the citizen would still be able to challenge the federal agency which issued a permit for the action for alleged failure to consult the Service under Section 7 of the ESA, if applicable.

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.

As explained previously, the Service has concluded that given current scientific capabilities, a proposed action that will involve the emission of greenhouse gas from a given facility cannot be linked to the incidental take of an actual, identifiable polar bear or to effects on its critical habitat. On October 3, 2008, the Department of the Interior's Solicitor issued a legal memorandum on the applicability of consultation requirements to proposed actions involving the emission of greenhouse gases (Bernhardt, 2008). The Solicitor concluded that, given the current state of science, a proposed action that will involve the emission of greenhouse gases cannot pass the "may affect" test for those greenhouse gases as they relate to climate change, and is not

subject to consultation on those effects under the ESA and its implementing regulations. In other words, in the legal opinion of the Service, federal agencies issuing permits for actions that result in the emission of greenhouse gases from a point source are not required under ESA Section 7 to consult the Service on those actions. This is the case regardless of which of the four alternatives the Service selects.

The four alternatives do, however, differ in the legal options available to private citizens who wish to challenge private entities that emit greenhouse gases. Under alternatives 1 or 4, which contain no Paragraph 4, any person or entity that is allegedly causing the incidental take of polar bears without appropriate MMPA authorization (which would be an ESA Section 9 prohibited activity), including this scenario's power plant in southeast Alaska, could be challenged by a private citizen using the ESA citizen suit provision, regardless of the activity's geographic location. Under alternative 3 the citizen's suit provision could also be used to challenge the southeast Alaskan power plant's greenhouse gas emissions as an alleged violation of ESA Section 9, because the power plant is within the State of Alaska. Only under alternative 2 would the citizen's suit provision against the power plant be disallowed, because the power plant is not located within the current range of the polar bear.

The primary reasons why greenhouse gases cannot pass the "may affect" test is because greenhouse gas emissions from single sources are small relative to aggregate emissions, and because greenhouse gases, once emitted from a given source, become well mixed in the global atmosphere and have a long atmospheric lifetime. Thus, it is no more effective or appropriate to regulate the greenhouse gas emitter in Southeast Alaska under the ESA than it is to regulate a greenhouse gas emitter in Iowa, or in any of the other states. Greenhouse gases from all point

sources co-mingle in the global atmosphere, and all are communally responsible for contributing to global climate change and its resulting impacts, including sea ice loss.

Under any of the alternatives, if any incidental take *actually occurred* or was *reasonably certain* to occur, the activity would be a violation of the MMPA, unless the activity had prior MMPA authorization. However, under the MMPA only the federal government could challenge the violator for an incidental take violation, while under the ESA the citizen's suit provision enables private citizens to challenge the alleged violator.

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. 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).

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. Thus, regardless of which of the four alternatives the Service selects, federal agencies taking action on the mercury emission must consider whether the point source of mercury might pass the "may affect" test for listed species downwind from the source. If so, regardless of which of the four alternatives the Service selects, the federal agency 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 prohibited under the MMPA, unless prior authorization for incidental take had been granted by the Service under that statute.

The difference among the alternatives thus rests on whether incidental take from the mercury emission is also prohibited under Section 9 of the ESA. The incidental take would be a Section 9 violation under alternatives 1 or 4, which contain no geographic exemptions, and under alternative 3, because the activity occurs within Alaska. It would not be a prohibited activity under Section 9 of the ESA under alternative 2, however, because the point source emission occurs outside the current range of the polar bear. Thus, private citizens would not have access to the citizen suit provision to challenge the mercury emitter for an alleged Section 9 ESA violation under alternative 2. However, the citizen would still be able to challenge the federal agency for alleged failure to consult the Service under Section 7 of the ESA, if applicable.

It is acknowledged that in this case, alternatives 1, 3 or 4 provide more protection to the polar bear than does alternative 2. Ultimately, however, the Service must weigh the relative benefits and drawbacks of each alternative. In the Service's judgment, activities that may result in incidental take of polar bears are likely to be more numerous and of greater potential threat within the entirety of the current range of the polar bear, than on the terrestrial land mass constituting the state of Alaska. Thus, the Service concludes that alternative 2 is the most reasoned overall choice, because it extends full ESA Section 9 protections across the current range of the polar bear (to the extent allowed by United States jurisdiction) and minimizes the potential legal and administrative burdens associated with broader application.

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 activities and impacts where either 1) different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives, and/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.

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

Resource	Alternative 1: No Action (full ESA protections; no 4(d) Rule)	Alternative 2 (Proposed): Final 4(d) rule of 12/16/2008 (with para. 4; ESA Section 9 within range of polar bear)	Alternative 3: Interim 4(d) Rule of 5/15/2008 (with para. 4; ESA Section 9 within State of Alaska)	Alternative 4: Final 4(d) Rule except no Paragraph 4
Physical - Sea Ice	Alternative choice has NO EFFECT . As it is currently not possible to definitively establish a causal connection between a particular point source of greenhouse gas emissions and a specific loss of sea ice habitat, ESA Section 9 has no effect.	Alternative choice has NO EFFECT . As it is currently not possible to definitively establish a causal connection between a particular point source of greenhouse gas emissions and a specific loss of sea ice habitat, ESA Section 9 has no effect.	Alternative choice has NO EFFECT . As it is currently not possible to definitively establish a causal connection between a particular point source of greenhouse gas emissions and a specific loss of sea ice habitat, ESA Section 9 has no effect.	Alternative choice has NO EFFECT . As it is currently not possible to definitively establish a causal connection between a particular point source of greenhouse gas emissions and a specific loss of sea ice habitat, ESA Section 9 has no effect.
Biological - Ability to Haze	Negative effect. Successful programs currently in place under MMPA would be hampered. Polar bear/human interactions would escalate to serious situations more frequently, resulting in increased bear mortality	Beneficial effect - successful programs currently in place under MMPA would continue. Hazing of problem bears protects both bears and people	Beneficial effect - successful programs currently in place under MMPA would continue. Hazing of problem bears protects both bears and people	Beneficial effect - successful programs currently in place under MMPA would continue. Hazing of problem bears protects both bears and people
Biological - Ability to Aid Entrapped Bear	Negative effect. Only federal or State agents could aid an entangled polar bear under the ESA. If such agents were not immediately available in remote communities, entangled bears could become further injured or die	Beneficial effect - the MMPA allows any person to aid an entangled marine mammal for the health or welfare of the animal. This could save an entrapped polar bear from further injury or death.	Beneficial effect - the MMPA allows any person to aid an entangled marine mammal for the health or welfare of the animal. This could save an entrapped polar bear from further injury or death.	Beneficial effect - the MMPA allows any person to aid an entangled marine mammal for the health or welfare of the animal. This could save an entrapped polar bear from further injury or death.
Biological - Geographic range of Prohibited Activities	Beneficial effect. Full ESA Section 9 protections apply, in addition to MMPA and CITES, regardless of where the activity occurs (applies to a variety of activities with a causal connection to incidental take)	Slight negative effect. Although MMPA and CITES still provide protections, activities occurring outside current range of polar bear not prohibited under ESA Section 9. Few activities that occur outside the polar bear's range have capacity to harm the species, but a few discrete examples could be imagined (i.e., point source of mercury contamination)	Moderate negative effect. Although MMPA and CITES still provide protections, activities occurring outside Alaska not prohibited under ESA Section 9. Some activities that occur on the Beaufort Sea above Alaska, such as an oil spill, harm from vessel traffic or noise from aircraft, could have serious consequences for the polar bear and warrant maximum protection	Beneficial effect. Full ESA Section 9 protections apply, in addition to MMPA and CITES, regardless of where the activity occurs (applies to a variety of activities with a causal connection to incidental take)

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

Resource	Alternative 1: No Action (full ESA protections; no 4(d) Rule)	Alternative 2 (Proposed): Final 4(d) rule of 12/16/2008 (with para. 4; ESA Section 9 within range of polar bear)	Alternative 3: Interim 4(d) Rule of 5/15/2008 (with para. 4; ESA Section 9 within State of Alaska)	Alternative 4: Final 4(d) Rule except no Paragraph 4
SocioEconomic - Cultural Exchange	Negative effect. Cultural exchanges between Alaska Natives and Natives from Russia, Canada and Greenland could be interrupted, or require new paperwork	Beneficial effect - cultural exchanges currently allowed under the MMPA and CITES would continue to be authorized under the provisions of those statutes	Beneficial effect - cultural exchanges currently allowed under the MMPA and CITES would continue to be authorized under the provisions of those statutes	Beneficial effect - cultural exchanges currently allowed under the MMPA and CITES would continue to be authorized under the provisions of those statutes
SocioEconomic - Registered tannery	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.	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)	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)	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	Negative effect. Layering ESA Section 9 prohibitions on top of existing MMPA and CITES provisions could create significant administrative and legal burdens on the regulated public, industry, Alaska Natives, non-profits and the Service, for little or no additional protection of polar bears.	Beneficial - Paragraphs 1 through 3 of the 4(d) rule would align the ESA with current MMPA and CITES provisions. Limiting ESA Section 9 prohibitions to activities within the current range of the polar bear would disallow potential citizen suits to point source emitters of greenhouse gases. Such legal challenges could create legal, financial and administrative burdens that would not result in actual protection for the polar bear or its habitat given the current state of the science	Beneficial - Paragraphs 1 through 3 of the 4(d) rule would align the ESA with current MMPA and CITES provisions. Limiting ESA Section 9 incidental take prohibitions to activities within Alaska would disallow potential citizen suits to point source emitters of greenhouse gases. Such legal challenges could create legal, financial and administrative burdens that would not result in actual protection for the polar bear or its habitat given the current state of the science	Mixed effect - some beneficial, some negative. Paragraphs 1 through 3 of the 4(d) rule would align the ESA with current MMPA and CITES provisions, which would be beneficial. Lack of a paragraph 4 to limit Section 9 incidental take prohibitions based on geography could impose a legal burden to point source emitters of greenhouse gases throughout the United States, which could be subjected to citizen suits under ESA Section 9. However, the ability to directly confront entities that cause incidental take regardless of geography would be a legal benefit for environmental plaintiffs

We chose to propose alternative 2's version of a 4(d) special rule because it provides measures that are necessary and advisable to provide for the conservation of the polar bear. The proposed special rule, in most instances, adopts the existing conservation regulatory requirements under the MMPA and CITES as the appropriate 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 use of marine mammals.

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. The implications of these activities have been the primary focus of this EA.

Concerning subsistence use and take for defense of property and welfare of the animal, the MMPA allows a greater breadth of activities than would be allowed under the general ESA 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 bear-human 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 worst 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 problem bears – all without providing any additional conservation benefit to the polar bear.

The proposed alternative (alternative 2) delineates the geographic range over which the ESA prohibition against incidental take is appropriate more precisely than alternative 3. Under paragraph (4) of the proposed special rule, 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 the State of Alaska). The geographic area specified within paragraph (4) of the proposed rule 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 of the State 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.

The remaining alternatives (2 and 4) differ regarding whether the special rule contains a paragraph 4, which limits the geographic extent of incidental take prohibitions under ESA Section 9 for the polar bear. Alternative 2 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 and is not supported by current scientific knowledge.

In conclusion, we proposed alternative 2 as a 4(d) special rule that provides measures that are necessary and advisable for the conservation of the polar bear and prohibits by regulation with respect to the polar bear certain acts prohibited in section 9(a)(1) of the ESA , while adopting a regulatory framework that is most sensible and effective for a wide variety of stakeholders, including Alaska Natives, communities within the range of the polar bear, the regulated public,

government agencies, and the general public. However, we welcome and await public comment on the four alternatives, and realize that substantive information contributed during the public involvement process might lead us to select any of the four alternatives during final rulemaking.

LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS CONTACTED

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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.

To initiate tribal consultation regarding this draft EA, 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 ANC by telephone to further inform that 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 urges the Service to continue to provide information on the development of any proposed rule to the effected public. The Service intends to meet this recommendation throughout the process of finalizing this EA and proposed 4(d) special rule for the polar bear, and we will continue to seek input from ANTs and ANCs. Any comments, recommendations, or suggestions received from ANTs and ANCs will be considered, and if appropriate, will be used to revise the EA and/or the proposed 4(d) special rule.