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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

CENTER FOR BIOLOGICAL DIVERSITY and)	
PACIFIC ENVIRONMENT,)	
)	
Plaintiffs,)	
)	Case No. 1:08-cv-____ - ____
v.)	
)	
DIRK KEMPTHORNE, Secretary of the Interior, and U.S.)	
FISH AND WILDLIFE SERVICE,)	
)	
Defendants.)	

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

(5 U.S.C. §§ 702-706; 42 U.S.C. § 4332; 16 U.S.C. § 1371; 16 U.S.C. § 1536)

I. INTRODUCTION

1. In this civil action for declaratory and injunctive relief, Plaintiffs Center for Biological Diversity and Pacific Environment challenge the failure of Defendants Dirk Kempthorne, United States Secretary of the Interior, and the United States Fish and Wildlife Service (collectively “the Secretary”) to comply with the Marine Mammal Protection Act (“MMPA”) (16 U.S.C. § 1361 *et seq.* (2008)), Endangered Species Act (“ESA”)(16 U.S.C. § 1531 *et seq.* (2008)), and the National Environmental Policy Act (“NEPA”) (42 U.S.C. § 4321 *et seq.* (2008)) in promulgating regulations authorizing the “incidental take” of otherwise protected polar bears and Pacific walrus from oil and gas exploration activities in the Chukchi Sea.

2. Plaintiffs challenge a final rule promulgated by the Secretary on June 11, 2008 pursuant to the MMPA that authorizes the harassment of polar bears and Pacific walrus resulting from any oil and gas industry pre-leasing, leasing and exploration activities in the Chukchi Sea and adjacent coastal areas of Alaska for five years. *See* 73 Fed. Reg. 33212 (June 11, 2008) (“Marine Mammals; Incidental Take During Specified Activities; Final Rule”); *codified* at 50 C.F.R. § 18.111 *et seq.* Plaintiffs also challenge the accompanying biological opinion issued by the Secretary pursuant to the ESA which concludes that the incidental take regulations will not “jeopardize the continued existence” of the polar bear, and the accompanying Environmental Assessment and “finding of no significant impact” issued by the Secretary pursuant to NEPA, which purport to analyze the environmental impacts of the regulations.

3. The Chukchi Sea is critically important habitat for both the polar bear and Pacific walrus, being the home of one of just two polar bear populations in Alaska, and the summer home of virtually the entire female population of Pacific walrus. Like the rest of the Arctic, the Chukchi Sea environment is undergoing dramatic changes as a result of global warming. In the

summer of 2007, the surface temperature of parts of the Chukchi Sea was reported to be five degrees C above average. The extent of summer sea ice set a new record low. Scientists have predicted that sea-ice retreat in 2008 is likely to exceed that of 2007.

4. The impacts of global warming on the Chukchi Sea and the rest of the Arctic are catastrophic for ice-dependent species such as polar bears and Pacific walrus. In just the past few years, polar bears have for the first time been documented drowning from lack of sea ice, dying from starvation or resorting to cannibalism from lack of access to food, suffering greatly reduced cub survival, and shifting from denning primarily on ice to denning primarily on land. The polar bear population in the Beaufort Sea off Alaska is known to be declining, and the population in the Chukchi Sea is likely declining. The Secretary predicts that both of these populations, representing all the polar bears in the United States, will vanish by mid-century absent dramatic changes in our energy policies. The Secretary acknowledged the threats to polar bears from global warming to be of sufficient magnitude that he listed the species as “threatened” under the ESA on May 15, 2008. *See* 73 Fed. Reg. 28212 (May 15, 2008).

5. The Pacific walrus, while less studied than the polar bear, is also suffering from the changes wrought by global warming, with, for example, recent documentation of unusual numbers of calves found separated from their mothers, swimming far from land and ice with virtually no chance of survival, and large congregations of female walrus and their calves gathering on the Chukchi Sea coast as the sea ice they would otherwise occupy recedes beyond the continental shelf. Pacific walrus are currently under review for protection under the ESA.

6. At the same time that global warming is wreaking havoc on the Chukchi Sea ecosystem, the Secretary has opened the door to large-scale oil industry development in this otherwise pristine environment. In February 2008 the Secretary held the first of three scheduled

lease sales for federal waters of the Chukchi Sea. Lease sales have also been held on federal lands along the Chukchi Sea coast. As a result, significant levels of oil industry operations will occur in the Chukchi Sea and adjacent coast over the next five years and beyond.

7. The challenged incidental take regulations would authorize oil companies to saturate the ocean with sonic blasts from four simultaneously operating survey ships each summer, deploy and operate three offshore drill rigs a year, build hundreds of miles of roads and run seismic trucks through polar bear denning areas along the coast, and simultaneously operate over two dozen ships and aircraft 24 hours a day in sensitive areas. Thousands of Pacific walrus and untold numbers of polar bears will be harassed as a result, and many individuals of both species will be put at risk of injury or death from exposure to dangerous sounds and the inevitable oil spills. Moreover, denning bears will likely be disturbed, potentially resulting in the death of cubs, while walrus will be subject to disturbance-induced stampedes which can trample hundreds of individuals, primarily young.

8. Notwithstanding the significant adverse impacts that the incidental take regulations and activities authorized thereunder will lead to, the Secretary concluded that only “small numbers” of Pacific walrus and polar bears will be harassed, that such impacts will have only a “negligible effect” on the species or stocks, that the polar bear will not be “jeopardized,” and that there will be no “significant” impacts on these species or the environment more generally. None of these conclusions is supported by either fact or law. If the polar bear and Pacific walrus are to survive in a rapidly changing Arctic, the Secretary must afford these species the full protections of the law to which they are entitled and so desperately need. He has not done so. The incidental take regulations promulgated under the MMPA and the underlying environmental analyses carried out under the ESA and NEPA must be set aside.

II. JURISDICTION

9. The Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 and 5 U.S.C. §§ 701-706. The relief requested is authorized by 28 U.S.C. §§ 2201-2202.

10. Defendants have not remedied their violations of the MMPA and NEPA and are in violation of these statutes under the standards of review provided by the Administrative Procedure Act (“APA”). There exists an actual controversy between the parties within the meaning of 28 U.S.C. § 2201 (declaratory judgments).

11. Venue is proper in the District of Alaska pursuant to 28 U.S.C. § 1391(e) as this civil action is brought against an agency of the United States and an officer of the United States acting in his official capacity and under the color of legal authority, no real property is involved in this action and the legal violations occurred within this judicial district.

III. PARTIES

12. Plaintiff Center for Biological Diversity (“the Center”) is a non-profit organization with offices in San Francisco, Joshua Tree and San Diego, California; Phoenix and Tucson, Arizona; Silver City, New Mexico; Portland, Oregon; and Washington, D.C. The Center’s mission is to ensure the preservation, protection, and restoration of biodiversity, native species, ecosystems, public lands, and public health. The Center is actively involved in species and habitat protection issues throughout the United States, including protection of Arctic wildlife in general and the polar bear and Pacific walrus in particular. These efforts include gaining ESA protection for the polar bear and petitioning to list the Pacific walrus under the ESA.

13. Plaintiff Pacific Environment is a non-profit organization based in San Francisco, California, with offices in Alaska. Pacific Environment promotes conservation throughout the Pacific Rim via activism, funding local grassroots environmental organizations, and education.

It actively advocates for greater protection of the Arctic marine environment and its inhabitants, including polar bears and Pacific walrus, from the harms caused by oil and gas industry operations.

14. Plaintiffs' members, directors, and staff visit or otherwise use and enjoy the Chukchi Sea and adjacent coastal region for recreation, wildlife viewing, education, research, photography, or aesthetic and spiritual enjoyment, and enjoy or otherwise experience polar bears and/or Pacific walrus that inhabit the Chukchi Sea and adjacent coastal areas. For these reasons, the Plaintiffs' use and enjoyment of polar bears and Pacific walrus is entirely dependent on the continued existence of healthy, sustainable, and accessible populations of these species in the wild. Any activities, such as oil and gas exploration, which destroy, degrade, or diminish polar bear and/or Pacific walrus habitat, or which kill, injure, harm, harass, or displace polar bears and Pacific walrus also by extension interfere with Plaintiffs' use and enjoyment of these species and their habitats. As such, these activities directly and irreparably injure the interests of Plaintiffs and their members, directors, and staff.

15. Because the MMPA prohibits the unpermitted take of polar bears and Pacific walrus, absent authorization for such take from the Secretary, none of these activities which harm these species and their habitats could lawfully occur in the Chukchi Sea. Therefore, the issuance of authorization for the taking of polar bears and Pacific walrus by the Secretary allows the initiation and continuation of activities that harm polar bears and Pacific walrus, their habitats, and by extension, Plaintiffs' interests.

16. Plaintiffs have also suffered informational and procedural injuries from the Secretary's failure to comply with the MMPA, ESA and NEPA in the issuance of the incidental take regulations. These injuries are connected to Plaintiffs' substantive conservation,

recreational, scientific, and aesthetic interests. Plaintiffs' members, directors and staff rely on the Secretary to comply with the requirements of the MMPA, ESA and NEPA to prepare adequate environmental analyses as called for by these statutes. Plaintiffs rely on these analyses to achieve their organizational purposes, including monitoring the use of the marine environment and the management of marine wildlife; monitoring compliance with the law concerning the management of these species; educating members, directors, staff, and the public concerning the management of these species; and advocating policies that protect polar bears, Pacific walrus, and their habitat.

17. Plaintiffs submitted comments to the Secretary on his proposed rule to authorize the incidental take of polar bears and Pacific walrus during oil and gas activities in the Chukchi Sea and adjacent coastal areas and the Draft Environmental Assessment relied upon by the Secretary.

18. The interests and organizational purposes of the Plaintiffs will be directly and irreparably injured by the Secretary's violation of law as described in this Complaint. Unless this Court grants the requested relief and orders the Secretary to comply with the MMPA, ESA and NEPA, harm to the polar bear and Pacific walrus will continue to accrue, and the aesthetic, recreational, educational, professional, scientific, spiritual, moral, and conservation interests of Plaintiffs and their members, directors and staff will continue to be adversely affected.

19. Defendant Dirk Kempthorne, United States Secretary of the Interior, is the highest ranking official within the Department of the Interior and, in that capacity, has ultimate responsibility for the administration and implementation of the MMPA and ESA with regard to the polar bear and Pacific walrus, and for compliance with all other federal laws applicable to the Department of the Interior, including NEPA. He is sued in his official capacity.

20. Defendant United States Fish and Wildlife Service (“FWS”) is a federal agency within the Department of the Interior authorized and required by law to protect and manage the fish, wildlife and native plant resources of the United States, including enforcing the MMPA and ESA. FWS has been delegated authority by the Secretary of the Interior to implement the MMPA and ESA for the polar bear and Pacific walrus, including responsibility for making decisions and promulgating regulations, including the regulations at issue in this suit.

IV. LEGAL FRAMEWORK

A. The Marine Mammal Protection Act

21. Congress enacted the MMPA in order to preserve currently healthy marine mammal populations and replenish waning marine mammal populations. 16 U.S.C. § 1361(2). The “primary” objective of the MMPA is to maintain the “health and stability of the marine ecosystem,” through the retention of marine mammal populations as a “significant functioning element in the ecosystem of which they are a part. . . .” 16 U.S.C. §§ 1361(6), (2). “Whenever consistent with this primary objective, it should be the goal to obtain an optimum sustainable population keeping in mind the carrying capacity of the habitat.” 16 U.S.C. §1361(6).

22. To those ends, the MMPA imposes a general moratorium on the taking of marine mammals. 16 U.S.C. §1371(a). Under the MMPA, the term “take” is broadly defined to mean “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.” “Harass” is further defined to include acts of “torment” or “annoyance” that have the “potential” to injure a marine mammal or marine mammal stock in the wild or have the potential to “disturb” them “by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.” 16 U.S.C. §1362(13) & (18).

23. The MMPA provides several narrow exceptions to the moratorium for takings. 16 U.S.C. §1371(a)(5). A 1981 amendment authorizes the Secretary to promulgate regulations, with a maximum duration of five years, that enable U.S. citizens who are engaged in a specified activity to take small numbers of marine mammals incidental to a specified activity. 16 U.S.C. §1371(a)(5)(A). To ensure the purposes of the Act were achieved, Congress carefully circumscribed the ability of the agencies to authorize such incidental takings. The restrictions on incidental takings include the following: (1) the taking must be incidental to a “specified activity”; (2) the taking may only occur “within a specified geographic region”; (3) the agency may only authorize “incidental, but not intentional” takings; (4) only “small numbers” of a population may be taken; and (5) prior to authorizing incidental takings and after notice and opportunity for public comment, the agency must (a) find that “the total of such taking . . . will have a negligible impact” on the affected population; (b) find that the total of such takings “will not have an unmitigable adverse impact on the availability of [the population] for taking for subsistence uses”; and (c) prescribe regulations that (i) establish permissible methods of taking and “other means of effecting the least practicable adverse impact” on the population; (ii) impose mitigation measures that minimize adverse impacts to the species and its availability for subsistence harvest; and (iii) impose monitoring and reporting requirements. 16 U.S.C. § 1371(a)(5)(A).

24. The Secretary promulgated regulations that generally implement the incidental take provisions of the MMPA. *See* 50 C.F.R §18.27. These regulations create a two-step process. The Secretary first issues incidental take regulations that govern a specified activity, and then issues letters of authorization (“LOAs”) to individual applicants, which authorize them to incidentally take marine mammals. *See* 50 C.F.R. §18.27.

25. The Secretary has defined “small numbers” as “a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock.” A “negligible impact” is defined as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. §18.27. At least one court has struck down this definition of “small numbers” as inconsistent with the statute.

26. The Secretary may also, upon request, authorize take in the form of harassment by an Incidental Harassment Authorization (“IHA”) for a period of not more than one year. 16 U.S.C. § 1371(a)(5)(D). The criteria for issuance of an IHA are similar to those for the five year regulations, but an IHA is not available if the activity has the potential to result in serious injury or death of a marine mammal.

27. To ensure all decisions related to marine mammals are made on the basis of the best scientific information, Congress established the United States Marine Mammal Commission and charged it to make recommendations to the Secretary on matters related to marine mammals. The MMPA requires that any deviation from the Marine Mammal Commission’s recommendations must be explained in detail. 16 U.S.C. § 1402(d).

B. The Endangered Species Act

28. The ESA was enacted, in part, to provide a “means whereby the ecosystems upon which endangered species and threatened species depend may be conserved...[and] a program for the conservation of such endangered species and threatened species...” 16 U.S.C. § 1531(b).

29. The ESA vests primary responsibility for administering and enforcing the statute with the Secretaries of Commerce and Interior. The Secretaries of Commerce and Interior have delegated this responsibility to the National Marine Fisheries Service (“NMFS”) and FWS

respectively. 50 C.F.R. § 402.01(b). FWS has responsibility for protecting the polar bear under the ESA.

30. Section 2(c) of the ESA establishes that it is “...the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act.” 16 U.S.C. § 1531(c)(1). The ESA defines “conservation” to mean “...the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.” 16 U.S.C. § 1532(3). Similarly, Section 7(a)(1) of the ESA directs that the Secretary review “...other programs administered by him and utilize such programs in furtherance of the purposes of the Act.” 16 U.S.C. § 1536(a)(1).

31. In order to fulfill the substantive purposes of the ESA, federal agencies are required to engage in consultation with the Secretary to “insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of habitat of such species... determined...to be critical...” 16 U.S.C. § 1536(a)(2) (“Section 7 consultation”).

32. Section 7 consultation is required for “any action [that] may affect listed species or critical habitat.” 50 C.F.R. § 402.14. Agency “action” is defined in the ESA’s implementing regulations to include “(b) *the promulgation of regulations*; (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air.” 50 C.F.R. § 402.02 (emphasis added).

33. Where FWS is also the acting agency, (as in this case with regards to the

promulgation of incidental take regulations under the MMPA and the issuance of LOAs permitting incidental takes under these regulations), and its actions affect species under its own jurisdiction, FWS must undertake internal consultation to comply with this requirement.

34. Consultation begins with the preparation of a biological assessment. Section 7(c)(1) of the ESA provides that “each Federal agency shall, with respect to any agency action of such agency..., request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action,” and “if the Secretary advises...that such species may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which is likely to be affected by such action.” 16 U.S.C. § 1536(c)(1).

35. At the completion of consultation the Secretary will issue a biological opinion that determines if the agency action is likely to jeopardize the continued existence of the species. In formulating the biological opinion, the Secretary must use the best scientific and commercial data available. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8).

36. If the Secretary determines that the agency action is likely to jeopardize the species, the opinion may specify reasonable and prudent alternatives that will avoid jeopardy and allow the agency to proceed with the action. 16 U.S.C. § 1536(b). The Secretary may also “suggest modifications” to the action during the course of consultation to “avoid the likelihood of adverse effects” to the listed species even when not necessary to avoid jeopardy. 50 C.F.R. § 402.13.

37. Section 9 of the ESA and its implementing regulations prohibit the “take” of a threatened or endangered species of animal, such as the polar bear. 16 U.S.C. § 1538(a)(1); 50 C.F.R. §§ 17.31 & 17.40(q). “Take” is defined broadly under the ESA to include harming,

harassing, trapping, capturing, wounding, or killing a protected species either directly or by degrading its habitat sufficiently to impair essential behavior patterns. 16 U.S.C. § 1532(19). One exception to Section 9's take prohibitions is relevant here. A federal agency may take listed species only in accordance with an “incidental take statement” issued with a biological opinion. 16 U.S.C. §§ 1536(b)(4) & 1536(o).

38. The Secretary is required under Section 7(b)(4) of the ESA to issue an incidental take statement with a biological opinion that specifies the amount and extent of incidental take authorized to the action agency. An incidental take statement must also contain reasonable and prudent measures “necessary or appropriate” to minimize the impact of the taking. 16 U.S.C. § 1536(b)(4). An incidental take statement must include terms and conditions that the agency must comply with to implement the reasonable and prudent measures. *Id.* If, as here, the listed species to be taken is a marine mammal, take can only be authorized under the ESA if it is also authorized pursuant to the MMPA. 16 U.S.C. § 1536(b)(4)(C).

C. The National Environmental Policy Act

39. NEPA is “our basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a). It was enacted in 1970 to put in place procedures to insure that, before irreversibly committing resources to a project or program, federal agencies “encourage productive and enjoyable harmony between man and his environment,” “promote efforts which will prevent or eliminate damage to the environment,” and “enrich understanding of the ecological systems and natural resources important to the Nation.” 42 U.S.C. § 4321.

40. Fundamentally, NEPA seeks to guarantee that: (1) agencies take a “hard look” at the environmental consequences of their actions *before* these actions occur by ensuring that the agency carefully considers detailed information concerning significant environmental impacts;

and (2) agencies make the relevant information available to the public so that it may also play a role in both the decision making process and the implementation of that decision. *See, e.g.*, 40 C.F.R. § 1500.1.

41. NEPA and the regulations promulgated thereunder by the Council on Environmental Quality (“CEQ”) require that all federal agencies, including FWS, must prepare an environmental impact statement (“EIS”) for all “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C); *see also* 40 C.F.R. § 1501.4.

42. The fundamental purpose of an EIS is to force the decision-maker to ensure that the policies and goals defined in NEPA are infused into the actions of the federal government. 40 C.F.R. § 1502.1. An EIS analyzes the potential environmental impacts, alternatives and mitigation opportunities for major federal actions.

43. An EIS must provide a detailed statement of: (1) the environmental impact of the proposed action; (2) any adverse environmental effects that cannot be avoided should the proposed action be implemented; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented. 42 U.S.C. § 4332(C).

44. An EIS must “inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. NEPA also requires federal agencies to analyze the direct, indirect, and cumulative impacts of the proposed action. 40 C.F.R. §§ 1508.7 & 1508.8. In addition to alternatives and impacts, NEPA requires agencies to consider mitigation measures to minimize the environmental impacts of the proposed action. 40 C.F.R. § 1502.14

(alternatives and mitigation measures); 40 C.F.R. § 1502.16 (environmental consequences and mitigation measures).

45. An agency may first prepare a detailed Environmental Assessment (“EA”) to determine whether the project *may* significantly affect the environment and requires a full EIS. 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1508.9. An EA is “a concise public document” that serves, among other things, to “provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.” *Id.* As with any document prepared under NEPA, an environmental assessment is intended to “ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. § 1500.1(b).

46. Significance is based upon the “context” and “intensity” of the action. 40 C.F.R. § 1508.27. “Context” refers to the geographic and temporal scope of the agency action and the interests affected. *Id.* § 1508.27(a). “Intensity” addresses the severity of the impacts. *Id.* § 1508.27(b). Factors relevant to intensity include: the degree to which the effects on the quality of the human environment are likely to be highly controversial; the degree to which the action may adversely affect an endangered or threatened species or its critical habitat; the presence of “uncertain impacts or unknown risks;” whether the action is “related to other actions with individually insignificant but cumulatively significant effects;” and whether the project “threatens a violation” of other laws. *Id.* at § 1508.27(b).

47. If, after preparing an EA, the agency determines an EIS is not required, the agency must provide a “convincing statement of reasons” why the project’s impacts are insignificant and issue a Finding of No Significant Impact or “FONSI.” 40 C.F.R. §§ 1501.4, 1508.9 & 1508.13.

V. FACTUAL AND PROCEDURAL BACKGROUND

A. The Chukchi Sea, Polar Bear, and Pacific Walrus

1. The Chukchi Sea

48. The Chukchi Sea is largely a shallow continental shelf sea in the Arctic Ocean off the northern coast of Alaska and eastern Russia, north of the Bering Strait and west of the Beaufort Sea. It provides habitat to a host of wildlife species including polar bears, Pacific walrus, and numerous other marine birds and mammals.

49. The Chukchi Sea is a dynamic Arctic marine environment. Portions of the Sea seasonally fluctuate between solid, contiguous sea ice, liquid sea-water, and various intermittent states. Changes in average ambient temperatures affect the extent, concentration and seasonal duration of sea ice in the Chukchi Sea and throughout the Arctic.

50. During recent decades, the Arctic has warmed more rapidly than any other region on earth. In Alaska, winter temperatures have increased by as much as three to four degrees C during the past 50 years. The Arctic is expected to continue to warm at a faster rate than the rest of the earth. In 2007, the surface temperature of parts of the Chukchi Sea was up to five degrees C warmer than average.

51. Recent studies have observed perennial sea ice disappearing at a rate of 9.2 percent per decade during the past 25 years. New record lows for summer sea-ice extent were set in 2002, 2005, and again in 2007. Sea-ice extent in September 2007 was reported to be 39 percent below the long-term average from 1979 through 2000. September 2008 sea-ice extent is likely to meet or exceed the record low of 2007. Scientist have predicted the Arctic may be ice-free in summer by 2012 or sooner.

52. Many of the species that inhabit the Chukchi Sea, such as polar bears and Pacific

walrus, depend on sea ice. The rapid decline of sea ice in the Chukchi Sea is having profound negative effects on both species.

2. Polar Bears in a Warming Arctic

53. On May 15, 2008 the Secretary listed the polar bear as a threatened species under the ESA. *See* Endangered and Threatened Wildlife and Plants, Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range, 73 Fed. Reg. 28212-28303 (May 15, 2008) (“Final Listing Rule”). The Final Listing Rule documents the numerous adverse impacts that ongoing and projected loss of sea ice is having on the species.

54. Polar bears are the largest of the living bear species and are evolutionarily adapted to life in Arctic sea-ice habitat. 73 Fed. Reg. 28212. The polar bear is the Arctic’s top predator, feeding primarily on ice-dependent seals including the ringed seal (*Phoca hispida*) and to a lesser extent the bearded seal (*Erignathus barbatus*) and other ice seals. 73 Fed. Reg. 28213.

55. There are 19 currently-recognized polar bear populations distributed throughout the Northern hemisphere in areas where sea ice occurs for substantial portions of the year. 73 Fed. Reg. 28212-3, 28215. These populations can be found within the jurisdiction of five countries: the United States (in Alaska), Canada, Denmark (in Greenland), Norway, and Russia. 73 Fed. Reg. 28216. Polar bears tend to occur in highest densities where they have the greatest access to seals: sea ice located over the shallow continental shelf and other areas of high biological productivity as compared to deep water regions. 73 Fed. Reg. 28213. Worldwide polar bear abundance was most recently estimated at 20,000-25,000 bears. 73 Fed. Reg. 28215.

56. Two polar bear populations occur in the United States, the Southern Beaufort Sea polar bear population and the Chukchi-Bering Sea polar bear population. These

populations are recognized as distinct stocks under the MMPA and listed as a “depleted” under that statute. The ranges of these two populations overlap in the Chukchi Sea.

57. Polar bears are marine mammals and are completely dependent upon Arctic sea ice as their primary habitat for survival. 73 Fed. Reg. 28214, 28219, 28255. Polar bears need sea ice as a platform from which to hunt their primary prey, ice-dependent seals, to make seasonal migrations between the sea ice where they feed and their terrestrial denning areas, and to find mates. 73 Fed. Reg. 28214, 28219, 28255. Some polar bears give birth to their cubs in snow dens on top of the drifting sea ice. 73 Fed. Reg. 28214, 28219, 28255. Because polar bears can only hunt effectively when on the ice, when forced onto land either by the seasonal retreat of the sea ice in some areas or to give birth to their cubs, polar bears undergo a time of partial or complete fasting and nutritional stress. 73 Fed. Reg. 28259.

58. The Earth’s climate is warming due to society’s production of greenhouse pollution, primarily from the combustion of fossil fuels for energy. 73 Fed. Reg. 28244. The major greenhouse pollutants include carbon dioxide, methane, nitrous oxide, halocarbons, and black carbon. 73 Fed. Reg. 28244.

59. For a number of reasons, the Arctic has experienced greater and more rapid warming than the temperate regions. Average Arctic air temperatures have been increasing at almost twice the rate of the rest of the world in the past 100 years. 73 Fed. Reg. 28224. Over the past three decades, portions of the Arctic have warmed at 10 times the world average. 73 Fed. Reg. 28270. Even using moderate projections of future greenhouse gas emissions levels, average temperatures in the Arctic are projected to increase an additional 9 degrees F (5 degrees C) by the end of this century. 73 Fed. Reg. 28230. The average temperature increase masks even greater warming in the autumn and winter than in the summer. 73 Fed. Reg. 28228.

60. As a result of this warming, as well as changes in atmospheric and oceanic circulation patterns, Arctic sea ice is melting very rapidly. 73 Fed. Reg. 28220-28225. In September 2007, the minimum Arctic sea-ice extent hit a new record minimum, fully one million square miles below the average minimum sea ice extent between 1979 and 2000. 73 Fed. Reg. 28220-1. There was less ice in the Arctic in September 2007 than more than half of the world's leading climate models project for 2050. 73 Fed. Reg. 28233. The sea-ice extent in the winter is also declining, as is the age and thickness of the ice that remains. 73 Fed. Reg. 28222. The length of the sea-ice melt season is increasing. 73 Fed. Reg. 28223.

61. Because of their specialized habitats and life history constraints, polar bears are particularly susceptible to negative population impacts from sea-ice loss resulting from climate change. 73 Fed. Reg. 28270. Polar bears cannot survive without “large and accessible seal populations and vast areas of ice from which to hunt.” 73 Fed. Reg. 28262.

62. For decades scientists have predicted an array of adverse impacts to polar bears from climate change including adverse effects on denning, food chain disruption, and changes in prey availability. 73 Fed. Reg. 28256. Even short of complete disappearance of sea ice, polar bears have experienced and will continue to experience a cascade of impacts from global warming that will affect virtually every aspect of the species' existence, in most cases leading to reduced body condition and consequently reduced reproduction or survival.

63. The timing of ice formation and break-up will determine how long and how efficiently polar bears can hunt seals. A reduction in the hunting season caused by delayed ice formation and earlier break-up will mean reduced fat stores, reduced body condition, and therefore reduced survival and reproduction. 73 Fed. Reg. 28261.

64. Reductions in sea ice will result in increased distances between the ice edge and

land. 73 Fed. Reg. 28263. This will make it more difficult for female bears that den on land to reach their preferred denning areas. Increased travel distances will impact individual fitness, denning success, and ultimately population size. 73 Fed. Reg. 28263-28265, 28264-5.

65. Increased areas of open water will also increase the risk of drowning during long distance swimming or swimming under adverse weather conditions, as well as increase the risk of hypothermia for young cubs not yet able to withstand submersion in ice water. 73 Fed. Reg. 28262; 28266.

66. Reductions in sea-ice thickness and concentration will increase the energetic costs of traveling, as moving through fragmented sea ice and open water is more energy intensive than walking across consolidated sea ice. 73 Fed. Reg. 28257.

67. Reduced sea-ice extent will likely result in reductions in the availability of ice-dependent prey such as ringed seals, as prey numbers decrease or are concentrated on ice too far from land for polar bears to reach. 73 Fed. Reg. 28259-60.

68. Global warming will increase the rates of human/bear interactions, as greater portions of the Arctic become more accessible to people and as polar bears are forced to spend more time on land waiting for ice formation. Increased human/bear interactions will almost certainly lead to increased polar bear mortality. 73 Fed. Reg. 28279-80.

69. Polar bears will also be exposed to increasing human activity, such as shipping, that occurs as a result of decreasing Arctic sea ice.

70. The combined effects of these impacts of global warming on individual bears' reproduction and survival ultimately translate into impacts on polar bear populations. Impacts will be most severe on female reproductive rates and juvenile survival. In time, reduction in these key demographic factors will translate into population declines and extirpations. 73 Fed.

Reg. 28257.

71. Many polar bears are already suffering these impacts. The Southern Beaufort Sea polar bear population is now considered in decline due to global warming. 73 Fed. Reg. 28268. The population was estimated at 1,800 bears in 1986 and at 1,526 bears between 2001 and 2006. 73 Fed. Reg. 28268. The Southern Beaufort Sea population has experienced statistically significant declines in cub survival, cub skull size, and adult male weight and skull size. These are the same types of changes that preceded a dramatic decline in the Western Hudson Bay population between 1987 and 2004. 73 Fed. Reg. 28266, 28268.

72. Global warming is also causing increased instances of unusual polar bear deaths which “suggest mechanisms by which a changing sea-ice environment can affect polar bear demographics and population status.” 73 Fed. Reg. 28268. In the spring of 2006, researchers found at least three bears in the Southern Beaufort Sea population that had starved to death. 73 Fed. Reg. 28268. During the winter and spring of 2004, researchers recorded three observations of polar bear cannibalism, also in the Southern Beaufort Sea population, the first such observations in that region in decades of research. 73 Fed. Reg. 28268. Several instances of polar bears drowning have also been documented. 73 Fed. Reg. 28263. Researchers with the U.S. Minerals Management Service observed the carcasses of four bears that had drowned in the Beaufort Sea during a period of high winds and rough seas in September 2004, and believe that more bears drowned during this same event but were not observed. 73 Fed. Reg. 28263. Another drowning was reported from Svalbard in 2006. 73 Fed. Reg. 28263. The evidence suggests that drowning will become an increasing source of mortality for polar bears as the sea ice continues to melt. 73 Fed. Reg. 28263.

73. Scientists interpret these observations as a prelude to mass polar bear mortality

events in the future. 73 Fed. Reg. 28275 (“As changes in habitat become more severe and seasonal rates of change more rapid, catastrophic mortality events that have yet to be realized on a large scale are expected to occur.”).

74. Not surprisingly, given the serious impacts polar bears are already suffering, the future is bleak for this species overall absent immediate actions to protect it.

75. The U.S. Geological Service (“USGS”) conducted a number of studies addressing the future status of polar bears in a warming world. The USGS divided the world’s polar bears into four ecological regions based on sea-ice conditions as follows: (1) the seasonal ice ecoregion which includes Hudson Bay, and occurs mainly at the southern extreme of the polar bear range, (2) the archipelago ecoregion in the high Canadian Arctic, (3) the divergent ice ecoregion where ice is formed and then advected away from near-shore areas, and (4) the convergent ice ecoregion where sea ice formed elsewhere tends to collect against the shore. 73 Fed. Reg. 28271, 28217-28218 (Figure 2).

76. The USGS found that under a “business as usual” greenhouse gas emission scenario, polar bears will most likely be extinct in the seasonal ice and divergent ice ecoregions by 2050. 73 Fed. Reg. 28274. These areas support two-thirds of the world’s polar bears, and all of the bears in Alaska. The “good news” is that the USGS found that polar bears may persist until the end of the century in the Canadian archipelago ecoregion. 73 Fed. Reg. 28274.

77. Perhaps most disturbingly, the USGS models may be overly optimistic because the climate-model projections on which they are based all project a much slower melting trend than what is actually occurring. 73 Fed. Reg. 28274. None of the climate models projected the record low minimum sea-ice extent in 2007, and in fact there was less ice in the Arctic in 2007 than more than half of the models project for 2050. 73 Fed. Reg. 28274, 28233.

78. Despite all of the evidence of clear and present danger to the polar bear (and to ourselves), anthropogenic greenhouse gas emissions grow larger each year, and that rate of increase is itself still increasing. 73 Fed. Reg. 28287. While there are some existing regulatory mechanisms to address anthropogenic climate change, no regulatory mechanisms have been put in place at the national or international level that “directly and effectively address the primary threat to polar bears – the rangewide loss of sea ice habitat.” 73 Fed. Reg. 28288.

79. Polar bears are threatened by other factors as well. Over-hunting is exacerbating the effects of habitat loss in several populations. 73 Fed. Reg. 28280, 28257. The Chukchi Sea population is severely overharvested, particularly in Russia.

80. The proliferation of oil and gas development in polar bear habitat presents a significant threat to the species. The Minerals Management Service estimated the risk of a major oil spill from one large lease sale in the Chukchi Sea at 33 to 51 percent. 73 Fed. Reg. 28289. Polar bears are particularly vulnerable to oil spills due to their inability to effectively thermoregulate when their fur is oiled, and due to poisoning that results when they groom themselves in an effort to remove the oil. 73 Fed. Reg. 28288. There is no way to effectively clean up spilled oil in broken-ice conditions during the fall and spring, and the release of oil spilled under the ice in the winter could be “catastrophic” during spring break-up if bears were present. 73 Fed. Reg. 28289.

81. Many of the threats to polar bears will interact with global warming in cumulative and synergistic ways, further heightening the threat to individual populations and the species overall. 73 Fed. Reg. 28256. (“[P]olar bears today contend with harvest, contaminants, oil and gas development, and additional interactions with humans that they did not experience in [the past]....Thus, both the cumulative effects of multiple stressors and the

rapid rate of climate change today create a unique and unprecedented challenge for present-day polar bears...”).

3. The Pacific Walrus

82. The Pacific walrus, while less studied than the polar bear, is facing an equally uncertain future as global warming melts its sea-ice habitat.

83. Pacific walrus are currently considered a single stock of animals whose population ranges across the borders of Alaska and Russia. 73 Fed. Reg. 33218. The most recent available population analysis for Pacific walrus estimated approximately 200,000 individuals. 73 Fed. Reg. 33218.

84. The Pacific walrus undergoes a complex seasonal migration between the Bering and Chukchi Seas that is strongly coupled with the distribution of the sea ice. During the winter reproductive season, the entire population congregates on the broken pack ice of the Bering Sea. During spring, female and young walrus follow the retreating sea ice northward and spend the summer on the sea-ice edge of the Chukchi Sea, using offshore ice floes as platforms for resting, nursing, and molting.

85. The Pacific walrus is an ice-dependant species. 73 Fed. Reg. 33219. Walrus require sea ice as a platform for resting between foraging bouts, courtship, giving birth, nursing calves, completing molt, and as passive transport to new foraging areas. In addition to providing the substrate for critical life-cycle activities, sea ice provides isolation from terrestrial predators and disturbance, proximity to food resources over the shelf, and increased space and reduced competition for haul-out sites.

86. The loss of summer sea ice in the Chukchi Sea is already having significant impacts on the Pacific walrus. In recent years, thousands of walrus have been forced to haul out

on land during the summer months when sea ice has retreated well beyond the continental shelf. 73 Fed. Reg. 33219. During the low summer sea-ice conditions of 2007, several thousand walrus were observed hauled out on the Alaskan Chukchi Sea coast between Barrow and Cape Lisburne. Walrus hauled out on shore are vulnerable to disturbance from noise, vulnerable to predation, and subject to injury and death from stampedes. In 2007, about 3,000 to 4,000 walrus reportedly died onshore, many from injuries sustained during stampedes.

87. The loss of summer sea ice and significant reductions in winter sea ice deprives the Pacific walrus of access to large portions of its foraging habitat on the Chukchi and Bering Sea shelves. Walrus, which feed on the sea floor, generally utilize sea ice as a platform from which to effectively forage, but cannot do so if the ice recedes over water more than 100 meters deep. As sea ice retreats beyond the continental shelf, walrus must abandon the ice, losing access to feeding grounds. The presence of ice over appropriate depths for feeding is especially important for females with dependant calves that are not capable of deep diving or long exposure in the water. 73 Fed. Reg. 33219.

88. Without sea-ice resting platforms over the Chukchi Sea shelf in summer, females and young are forced to use land-based haulouts and are only able to access benthic prey resources within a prescribed distance from shore. During the winter, the remaining sea ice in the Bering Sea will be smaller in extent and the sea-ice edge will continue to retreat farther northward. Therefore, the entire Pacific walrus population will have access to progressively smaller areas of the Bering Sea shelf for foraging in winter. Concentrated groups of walruses on land haulouts can quickly deplete local benthic prey resources.

89. Pacific walrus adults and young are likely to experience increased physiological stress due to the loss of sea-ice haulouts since this prevents them from resting at sea during

foraging trips, and from nursing their young and molting on safe, offshore sea-ice floes. The reduction and thinning of sea ice will result in higher energetic costs as walrus will have to swim farther before finding adequate sea-ice floes. Increased physiological stress from these sources could have negative consequences for walrus fecundity and survival. In addition, calves are at increased risk of mortality from abandonment and trampling injuries during disturbance events. 73 Fed. Reg. 33219.

90. Walrus that are forced to concentrate at terrestrial haulouts due to loss of sea ice will be at increased risk of predation by polar bears and terrestrial predators including grizzly bears, wolves, and arctic foxes. The break-up of the sea ice may also increase predation opportunities for killer whales that will be able to further penetrate the ice.

91. Pacific walrus migrations are closely linked to the seasonal cycle of sea ice. 73 Fed. Reg. 33219. The timing and pattern of onset of seasonal ice provide environmental cues for the entire Pacific walrus population to congregate at their breeding sites in the Bering Sea in winter. The delayed onset of the winter sea-ice season and northward retreat of the winter sea-ice edge may interrupt this seasonal migration and aggregation at the breeding grounds. Furthermore, walrus require winter sea ice for courtship displays, giving birth, and nursing. Reductions in quantity and quality of winter sea ice may negatively impact these activities, lowering reproductive success.

92. Rising temperatures and reductions in sea ice are resulting in a shift from a benthic-dominated ecosystem rich in prey for Pacific walrus to one dominated by pelagic fish. This ecosystem shift will lower prey availability for the Pacific walrus.

93. The disappearance of seasonal and perennial sea ice in the Arctic will encourage human activity, exposing Pacific walrus to increased shipping activity, commercial fisheries,

and oil and gas exploration throughout the Pacific walrus's range. 73 Fed. Reg. 33225.

94. Pacific walrus are susceptible to ulcers and permanent eye damage from contact with oil spills. 73 Fed. Reg. 33224. Since walrus are gregarious animals and associate in large groups, any contact with spilled oil could quickly spread to multiple individuals. Exposure to oil could also impact prey species, especially bivalve mussels, resulting in highly concentrated toxic accumulations in walrus and slower growth and productivity. Walrus feed primarily on mollusks, and are therefore vulnerable to a loss or contamination of such prey species. 73 Fed. Reg. 32224-5.

95. The effects of global warming and the consequent loss of sea ice in the Chukchi Sea presents "significant adaptive challenges to walruses in the region." 73 Fed. Reg. 32225.

96. On February 7, 2008 the Center for Biological Diversity petitioned the Secretary to list Pacific walrus as a threatened or endangered species under the ESA.

B. Proposed Oil and Gas Activities In and Around the Chukchi Sea

97. The Chukchi Sea currently has no operative oil fields in federal or state waters, and no permanent oil-industry infrastructure. Until Lease Sale 193 was held in February 2008, there had not been a federal lease sale in the Chukchi Sea since 1991, and all previous leases had expired or been relinquished. Lease Sale 193 was the first of three lease sales planned in the 40 million-acre Chukchi Sea planning area under the Minerals Management Service's ("MMS") Outer Continental Shelf Oil and Gas Leasing Program 2007-2012.

98. Lease Sale 193 marks the beginning of plans for significant industrial development of the Chukchi Sea. Over the next five years, the Secretary estimates that, in any given year, up to four seismic survey vessels could be operating simultaneously in the Chukchi Sea during the open water season. These survey vessels will be accompanied by as many as

three support vessels, and collect upwards of 14,500 kilometers of seismic survey data per ship. As many as six offshore high-resolution site surveys using seismic ships and support vessels may be carried out in any given year. The Secretary estimates that three drill ships could be operating in the Chukchi Sea in any given year, with each ship drilling as many as four wells. Each of these drill ships would also be accompanied by icebreakers, barges and tugs, helicopters, and supply ships.

99. In addition to oil industry activity proposed for federal waters, significant industry activity is also planned for onshore sites along the Chukchi Sea coast. As many as six onshore wells are projected to be drilled. According to the Secretary,

Drilling operations will require an estimated 32–161 km (20–100 mi) of ice roads, 32–483 km (20–300 mi) of rolligon trails, one to four airfields approximately 1,500 m (5,000 ft) in length on lakes or tundra, rig storage on gravel, possibly at new sites in the Northwest NPR–A, one to five camps, and one to three rigs operating in a given year.”

73 Fed. Reg. 33216.

100. While most oil industry activities in the Chukchi Sea and adjacent coastal areas are just getting underway, there has already been significant oil and gas activity in the neighboring Beaufort Sea and National Petroleum Reserve – Alaska. Additional lease sales, exploration drilling, and development and production plans are scheduled in these areas over the next few years. Both polar bears and Pacific walrus use habitat in these areas as well as in the Chukchi Sea. Oil industry activities in the habitat of Pacific walrus and polar bears are also occurring and expanding in Russia and Canada. The polar bear and Pacific walrus will experience significant adverse cumulative effects from these activities.

C. The Impacts of Oil and Gas Activities on Polar Bears and Pacific Walrus

101. Polar bears and Pacific walrus can be adversely impacted by all stages of oil and

gas development. These effects range from disturbance and injury from the deafening sounds generated by pre-lease and on-lease seismic surveys and the risks of oil spills associated with exploratory drilling, to the greenhouse gases generated by the production and combustion of oil and gas. At each step of the way, numerous vessels including icebreakers and fixed-winged aircraft and helicopters are utilized, adding to the din and disturbance, potentially triggering deadly stampedes by walrus and den abandonment by polar bears.

102. The Secretary has stated that in the oil industry only exploration activities are likely to occur in the Chukchi Sea over the next five years, with actual development and production plans likely occurring later. The primary components of the exploration phase are seismic surveys, site-clearance and shallow-hazard surveys, and exploratory drilling.

103. Other than underwater explosions, airgun arrays used in seismic surveying during oil and gas exploration generate the loudest human-made noise in the oceans. During operations, these airguns fire and generate a sound pulse once every seven to fifteen seconds. The noise generated by seismic airguns can propagate long distances in water. The noise generated by seismic airguns used for oil and gas exploration can be detected by underwater hydrophones several thousand kilometers away from the airguns that generate the noise.

104. Several types of seismic surveys are used in offshore oil and gas exploration, including marine streamer 3D seismic surveys, Ocean Bottom Cable 3D seismic surveys, marine streamer 2D seismic surveys, and high resolution shallow-hazard and site-clearance surveys. Each of these involves the use of airguns. Several also involve the use of sonars, the sound source levels of which approach those of airguns in intensity.

105. The potential impacts of underwater noise pollution from oil and gas exploration on marine mammals is an area of growing scientific and public concern. Underwater noise like

that generated by seismic airguns can harm marine mammals in numerous ways. Noise can interfere with communication among marine mammals, impair social bonding, and mask natural sounds that marine mammals rely on to obtain information about their environment and to avoid predators. Noise can cause marine mammals to avoid areas, including areas used for feeding, resting or migration. Repeated avoidance of feeding or resting areas can have long-term adverse effects to marine mammals, such as reducing the overall fitness or reproductive rate of a population. Underwater noise has been shown to cause physiological impacts, and to cause serious injury and death to marine mammals. Fatal marine mammal strandings have been documented in areas near active seismic surveys on at least two occasions. Seismic airgun pulses of sufficient volume also have the potential to cause temporary and permanent hearing loss in marine mammals.

106. In 1997, MMS convened a panel of experts to evaluate the potential adverse effects of noise from seismic airguns on marine mammals. The panel reached a consensus that marine mammals exposed to seismic pulses at levels higher than 180 dB re μPa (rms) could suffer serious behavioral or physiological impacts, including impacts to their hearing.

107. The Secretary has employed 180-dB re μPa (rms) and 190-dB re μPa (rms) as the received sound pressure level thresholds above which sound potentially injures Pacific walrus and polar bears, respectively.

108. When promulgating the Chukchi incidental take regulations, the Secretary acknowledged the impacts of seismic operations on Pacific walrus:

Seismic operations are expected to add significant levels of noise into the marine environment. Although the hearing sensitivity of walruses is poorly known, source levels associated with Marine 3D and 2D seismic surveys are thought to be high enough to cause temporary hearing loss in other pinniped species. Therefore, walruses within the 180-decibel (dB re 1 μPa) safety radius described by Industry

for seismic activities could potentially suffer shifts in hearing thresholds and temporary hearing loss.

73 Fed. Reg. 33252.

109. The Secretary also acknowledges that sounds at levels lower than the 180-dB threshold he recognizes for serious injury can also adversely impact marine mammals and therefore constitute “harassment” under the MMPA: “The National Marine Fisheries Service (‘NMFS’) identified that Level B harassment of marine mammals begins at 160-dB re 1 μ Pa. The Service concurs with this determination and believes its use is applicable to walrus aggregations.” 73 Fed. Reg. 33252.

110. In recent incidental harassment authorizations under the MMPA to allow seismic surveys to harass marine mammals in the Chukchi Sea, the Secretary has imposed 180-dB and 190-dB “exclusion zones” for Pacific walrus and polar bears, respectively, which preclude airgun operations when affected marine mammals are observed within the zones. The Secretary imposes these exclusion zones because seismic operations can cause injury, including injury in the form of permanent hearing loss, to marine mammals within these zones.

111. During seismic surveys conducted in the Chukchi Sea in 2006, the Secretary imposed conditions nearly identical to those in the disputed regulations. These conditions included the imposition of 180-dB and 190-dB exclusion zones, posting of marine mammal monitors on the deck of the vessel during daytime operations, and required shutdown or power-down of airguns when Pacific walrus or polar bears entered the exclusion zone. Nevertheless, scores of marine mammals entered the applicable exclusion zone while airguns were firing. Marine mammal observers reported it likely or very likely that at least 19 individual Pacific walrus were exposed to seismic pulses with received sound pressure levels above 180 dB re μ Pa (rms). This number accounts only for Pacific walrus that were spotted by observers.

112. In 2007, one seismic survey was authorized by the Secretary in the Chukchi Sea. The MMPA authorization for this survey imposed the same 180 dB and 190 dB “exclusion zones” that were imposed as conditions in each of the 2006 authorizations. Marine mammal observers reported it likely that at least 50 individual Pacific walrus were exposed to seismic pulses with received sound pressure levels above 180 dB re μPa (rms). This number accounts only for Pacific walrus that were spotted by observers in the exclusion zone. Moreover, the monitoring report by Shell for this survey estimates that “there were 11.47 exposures to each of 253 individual walruses of sounds ≥ 180 dB.” This larger number was based on calculated walrus densities derived from visual observations of walrus during the survey. Given the inability of observers to see all walrus in the vicinity of survey vessels, this number almost certainly is also an underestimate.

113. Observers on the 2007 seismic survey also observed a dead walrus but were unable to determine the cause of its death.

114. In the Chukchi Sea, seismic vessels may actively operate airguns 24 hours a day, including during periods of darkness. Active airgun operation in the Chukchi Sea may continue during periods of high winds, rough seas, and periods of low visibility, such as in the presence of fog. During periods of darkness and other low-visibility conditions it is impossible to effectively monitor the exclusion zones for the presence of marine mammals. It is highly likely that marine mammals enter these exclusion zones undetected by the observers.

115. The monitoring report for the 2007 seismic survey acknowledges that the safety zones could not be effectively monitored:

This is likely an underestimate of the actual number of animals potentially affected. Some animals likely moved away before coming within visual range of [Marine Mammal Observers (MMOs)], and it is unlikely that MMOs were able to detect all of the marine mammals near the vessel trackline. During daylight,

animals are missed if they are below the surface when the ship is nearby. Some other mammals, even if they surface near the vessel, are missed because of limited visibility (e.g. fog), glare, or other factors limiting sightability. Visibility and high sea conditions were significant limiting factors during both the summer and fall Chukchi Sea surveys. Also, sound levels were estimated to be ≥ 160 dB re 1 μ Pa (rms) out to 8 km (5 mi). This distance is well beyond those at which MMOs can detect even the more conspicuous animals under favorable sighting conditions during daytime (this is why [Shell Oil] implemented the use of multiple chase/monitoring vessels). Furthermore, marine mammals could not be seen effectively during periods of darkness, which occurred for increasing numbers of hours per day after 14 Aug. Nighttime observations were generally not required or attempted except prior to and during nighttime power ups.

116. In 2007, the 180-dB zone was measured to extend over 2.4 kilometers from the seismic survey ship. It is impossible for marine mammal observers to detect all Pacific walrus within 2.4 kilometers of a seismic survey ship.

117. The Secretary has acknowledge that Pacific walrus exposed to sounds of 160 dB and above are “harassed” as that term is defined under the MMPA. The 160-dB zone for a seismic survey can extend over eight kilometers from the source vessel. It is impossible for marine mammal observers on a seismic survey vessel to spot all walrus within eight kilometers of the vessel.

118. For its 2006 seismic survey in the Chukchi Sea, ConocoPhillips estimated that as many as 3,652 walrus would be exposed to sounds of 160 dB or higher. Another company estimated that 2,359 walrus would be exposed to such sounds. This exposure estimate was based on the assertion that walrus more than one kilometer from the survey ship would not be exposed to sounds greater than 160 dB. As noted above, the 160-dB zone has been measured to extend over eight kilometers from the vessel. These estimates constitute underestimates of the number of walrus likely exposed to sounds of 160 dB and above.

119. While a 160-dB threshold is recognized by the Secretary as the onset of harassment from pulsed sounds such as airguns, NMFS has recognized a 120-dB threshold for

the onset of harassment from continuous sounds such as from exploratory drilling. A 120-dB zone can extend more than eight kilometers from a drill ship.

120. In addition to the sounds from seismic surveys and exploratory drilling that will harass literally thousands of Pacific walrus and potentially hundreds of polar bears, numerous other activities associated with oil exploration can adversely affect Pacific walrus and polar bears.

121. With regard to seismic surveys, the Secretary has stated:

Seismic exploration activities in the Chukchi Sea could affect polar bears in a number of ways. Seismic ships and icebreakers may be physical obstructions to polar bear movements, although these impacts are of short-term and localized effect. Noise, sights, and smells produced by exploration activities could repel or attract bears, either disrupting their natural behavior or endangering them by threatening the safety of seismic personnel.

73 Fed. Reg. 33226.

122. Such activities can also stress bears and cause them to overheat: “Polar bears are known to run from sources of noise and the sight of vessels, icebreakers, aircraft, and helicopters....On a warm spring or summer day, a short run may be enough to overheat a well-insulated polar bear.” 73 Fed. Reg. 33227.

123. Ships associated with industry activities can also disturb bears resting on ice floes:

In relatively ice-free waters, polar bears are less likely to approach ships, although they could be encountered on ice floes. For example, during the late 1980s, at the Belcher exploration drilling site in the Beaufort Sea, in a period of little ice, a large floe threatened the drill rig at the site. After the floe was moved by an ice breaker, workers noticed a female bear with a cub-of-the-year and a lone adult swimming nearby. It was assumed these bears had been disturbed from the ice floe.

73 Fed. Reg. 33227.

124. Such vessels can also obstruct polar bears from hunting:

Ships and ice breakers may act as physical obstructions, altering or intercepting bear movements in the spring during the start-up period for exploration if they transit through a restricted lead system, such as the Chukchi Polynya. Polynyas are important habitat for ice seals and walrus, which makes them important hunting areas for polar bears. A similar situation could occur in the fall when the pack-ice begins to expand.

73 Fed. Reg. 33227.

125. Oil industry operations can also act as an attractive nuisance to polar bears: “Attracting bears to these facilities, especially exploration facilities in the coastal or nearshore environment, could result in human-bear encounters, which could result in unintentional harassment, lethal take, or intentional hazing.” 73 Fed. Reg. 33227.

126. Denning bears are particularly vulnerable to disturbance: “During the ice-covered season, noise and vibration from exploratory drilling facilities could deter females from denning in the surrounding area.” 73 Fed. Reg. 33227.

127. Disturbance of denning females can lead to den abandonment and the death of the cubs:

[I]nformation exists indicating that polar bears may have abandoned dens in the past due to exposure to human disturbance. For example, in January 1985, a female polar bear may have abandoned her den due to rolligon traffic, which occurred between 250 and 500 meters from the den site. Researcher disturbance created by camp proximity and associated noise, which occurred during a den emergence study in 2002 on the North Slope, may have caused a female bear and her cub(s) to abandon their den and move to the ice sooner than necessary. The female was observed later without the cub(s).

73 Fed. Reg. 33228.

128. Den abandonment can also occur as a result of disturbance by aircraft: “[D]enning bears could abandon or depart their dens early in response to repeated noise such as that produced by extensive aircraft over-flights occurring in close proximity to the den.” 73 Fed. Reg. 33228.

129. In addition to disturbance from various specific oil industry activities, the simple increased presence of humans in polar bear habitat as a result of these activities can also lead to additional negative impacts on polar bears: “Human encounters can be dangerous for both the polar bear and the human and are another type of onshore disturbance.” 73 Fed. Reg. 33228.

130. Polar bears can also be harmed by waste product discharge and oil spills associated with exploration activities.

131. The Secretary has estimated a 40 percent chance of a large (>1000 barrel) oil spill occurring in the Chukchi Sea as a result of activities occurring as a consequence of Lease Sale 193. Two additional lease sales are planned for the Chukchi Sea over the next five years. Any bears that came in contact with spilled oil would likely die.

132. The Secretary also acknowledges the numerous adverse impacts of oil industry activities on the Pacific walrus:

Potential effects of disturbances on walruses include insufficient rest, increased stress and energy expenditure, interference with feeding, masking of communication, and impaired thermoregulation of calves that spend an increased amount of time in the water. Prolonged or repeated disturbances could potentially displace individuals or herds from preferred feeding or resting areas. Disturbance events can cause walrus groups to abandon land or ice haul-outs. Severe disturbance events occasionally result in trampling injuries or cow-calf separations, both of which are potentially fatal. Calves and young animals at the perimeter of the herds appear particularly vulnerable to trampling injuries.

73 Fed. Reg 33223.

133. Oil industry activities near sea ice have the potential to disturb large numbers of walrus:

[S]upport vessels and/or aircraft may occasionally encounter aggregations of walruses hauled out onto sea ice. The sight, sound, or smell of humans and machines could potentially displace these animals from ice haul-outs. Ice management operations are expected to have the greatest potential for disturbances since these operations typically require vessels to accelerate, reverse direction, and turn rapidly, activities that maximize propeller cavitations and

resulting noise levels. Previous studies suggest that icebreaking activities can displace some walrus groups up to several miles away.

73 Fed. Reg 33224.

134. The Secretary acknowledges that such disturbance can kill walrus: “the potential for disturbance events resulting in injuries, mortalities, or mother-calf separations is of concern. The potential for injuries is expected to increase with the size of affected walrus aggregations.”

73 Fed. Reg 33224.

135. Oil spills can also injure and kill walrus:

The potential exists for fuel and oil spills to occur from seismic and support vessels, fuel barges, and drilling operations. Little is known about the effects of fuel and oil on walruses; however, walruses may react to fuel and oil much like other pinniped species. Damage to the skin of pinnipeds can occur from contact with oil because some of the oil penetrates into the skin, causing inflammation and ulcers. Exposure to oil can quickly cause permanent eye damage. In studies conducted on other pinniped species, pulmonary hemorrhage, inflammation, congestion, and nerve damage resulted after exposure to concentrated hydrocarbon fumes for a period of 24 hours. Walruses are extremely gregarious animals and normally associate in large groups; therefore, any contact with spilled oil or fuel could impact several individuals.

73 Fed. Reg 33224.

136. The impacts of oil exploration activities on Pacific walrus and polar bears are significant. Because these activities will harass Pacific walrus and polar bears, these activities could not lawfully occur absent authorization from the Secretary under the MMPA.

D. The 2008 Chukchi Sea Incidental Take Regulations

137. On June 11, 2008, the Secretary finalized regulations pursuant to the MMPA that authorize the harassment of polar bears and Pacific walrus resulting from any oil and gas industry pre-leasing, leasing and exploration activities in the Chukchi Sea and adjacent coastal areas of Alaska for five years. *See* 73 Fed. Reg. 33212 (June 11, 2008) (“Marine Mammals; Incidental Take During Specified Activities; Final Rule”); *codified* at 50 C.F.R. § 18.111 *et seq.*

138. The incidental take regulations enable polar bears and Pacific walrus to be taken during exploration activities associated with oil and gas operations in the Chukchi Sea and adjacent coastline. These operations include onshore and offshore activities, year-round and seasonal activities, including but not limited to: seismic exploration (both underwater and on land or ice); transport and use of drilling structures; onshore and offshore drilling; construction and use of roads, runways and camps; well drilling; and transportation of materials and personnel (by automobile, airplane, helicopter, boats, barges, rolligons, cat trains, and snowmobiles).

139. The Secretary concluded that only “small numbers” of polar bears and Pacific walrus would be taken by the activities authorized under the regulations. The Secretary explicitly relied upon the existing regulatory definition of “small numbers” in making this determination. As noted above, at least one court has struck down this definition of “small numbers” as inconsistent with the statute. The Secretary did not include any numerical estimate of the numbers of polar bears and Pacific walrus that will be harassed as a result of oil industry activities covered by the regulations.

140. It is likely that thousands of Pacific walrus will be exposed to levels of sound greater than or equal to 160 dB and therefore “harassed” from a single seismic survey. The regulations authorize up to four seismic surveys per year for five years. The total number of Pacific walrus that will be harassed pursuant to the regulations is likely to be in the tens of thousands. This is not a small number by any definition.

141. The regulations include a requirement that aggregations of 12 or more walrus not be exposed to sounds greater than 160 dB. There is currently no effective method to monitor the entire 160-dB zone around a seismic vessel. The regulations do not require monitoring of

this zone at night or in other low visibility conditions. The regulations do not ensure that aggregations of walrus will not be exposed to sounds greater than 160 dB.

142. The incidental take regulations cover only “non-lethal” taking of Pacific walrus and polar bears. Nevertheless, lethal take is likely to occur as a result of the authorized activities. Walrus exposed to sounds greater than or equal to 180 dB may suffer permanent hearing loss. Such hearing loss is considered a “serious injury” under the MMPA. A “serious injury” is defined as an injury likely to result in death. The regulations do not contain any effective mechanism to prevent walrus from being exposed to sounds greater than or equal to 180 dB.

143. The regulations contain measures for operational and support vessels. These vessels are prohibited from approaching within 805 meters of walrus or polar bears observed on land or ice. The regulations do not prohibit operations when visibility is less than 805 meters. The regulations do not prohibit approaching walrus or polar bears in the water. The regulations state that vessels “should reduce speed” around feeding walrus groups. The regulations also state that “when visibility drops, vessels should adjust speed accordingly to avoid the likelihood of injury to walrus.” The regulations do not require vessels to reduce speed to any specific speed when around walrus in the water, merely that such speed be “reduced.” The regulations also state that operational and support vessels may not transit through the region covered by the regulations prior to July 1 of each year, unless granted a waiver by the Secretary. The regulations do not set any standards for the granting of such a waiver.

144. The regulations also contain measures for aircraft. The Secretary acknowledges that aircraft have the potential to trigger fatal stampedes of walrus and the abandonment of dens by polar bears. The regulations state that aircraft should not be operated at an altitude lower

than 305 meters within 805 meters of walrus or polar bears observed on ice or land. However, the regulations allow aircraft to fly lower than 305 meters when “weather conditions do not allow a 305 m (1,000 ft) flying altitude.” The Secretary did not analyze when or how frequently weather conditions would not allow the 305-meter flying altitude to be maintained, nor the impacts on the walrus and polar bear of vessels flying below this altitude.

145. The regulations contain “additional mitigation measures for offshore exploration activities.” The regulations limit offshore exploration activities from July 1 to November 30 each year, unless operators are granted a waiver by the Secretary. The regulations do not set any standards for the granting of such a waiver. The regulations state that no more than four simultaneous seismic operations will be authorized in the Chukchi Sea at any one time. The regulations do not impose any limits on the number of exploratory wells that may be drilled at the same time. The regulations do not impose any 180-dB or 160-dB exclusion or monitoring zones for exploratory drilling. The regulations do not impose any other measures to protect polar bears and Pacific walrus from disturbance from exploratory drilling.

146. The regulations contain “additional measures for offshore seismic surveys.” These measures include establishment of a 180-dB exclusion zone for walrus, a 190-dB exclusion zone for polar bears, and a 160-dB disturbance zone for walrus. The regulations require that aggregations of 12 or more walrus not be exposed to sounds greater than 160 dB. The regulations do not impose any measures to prevent polar bears from being exposed to sounds between 160 dB and 190 dB. The regulations only impose exclusion and disturbance zones for seismic airguns; the regulations do not impose any mitigation measures for the sounds from the subbottom profilers or sonars used in shallow hazard and site clearance surveys.

147. Although the incidental take regulations do not authorize lethal takings, an oil

spill resulting from seismic vessel and support operations, drill rigs, fuel barges, waste disposal, camp operations, survey flights, and potential “in-situ” burning of oil spills, may cause polar bear or Pacific walrus deaths. The regulations do not impose any measures to reduce the risk of oil spills from authorized industry activities.

148. The regulations also authorize take of polar bears and walrus from onshore exploration activities. The regulations contain no measures to protect walrus from these activities. The regulations state that LOA recipients must “make efforts to locate occupied polar bear dens within and near proposed areas of operation, using appropriate tools such as forward looking infrared radar (FLIR) imagery and/or polar bear scent-trained dogs.” The regulations do not require any specific protocol for determining the location of polar bear dens. The regulations impose a one-mile operational exclusion zone around known dens during the denning season. The location of most dens in the onshore area covered by the regulations is not known.

149. The Marine Mammal Commission (“MMC”) commented on the proposed regulations. The MMC recommended that the Secretary conduct a “more extensive analysis” of the proposed oil and gas activities that considers (1) “the direct effect of these operations on walrus and polar bear populations, (2) the potential or likely effects of other oil and gas activities, climate change,” and industrial operations, and (3) “the possible cumulative effects of all these activities and processes over time, as well as potential effects on walruses and polar bears of oil spills that could occur during subsequent development and production activities.” The MMC further recommended that the Secretary include additional mitigation measures applicable to all LOA holders, and make the mitigation measures available for public comment. Finally, the MMC recommended that the Secretary, applicants for LOAs, and other agencies

develop a broad-based population monitoring and impact assessment program that initially focuses on collecting baseline information sufficient to allow future analyses of oil and gas activity effects. The Secretary did not follow the MMC's recommendations.

E. The NEPA Process

150. On June 1, 2007, the Secretary published a draft EA that purported to describe the environmental impacts of the incidental take regulations. On March 19, 2008, the Secretary finalized the EA.

151. The EA considers only the proposed action and a no-action alternative. The EA declines to evaluate an alternative by which the Secretary would issue separate incidental take regulations for discrete classes of specific activities related to oil and gas exploration and extraction. The EA also declines to evaluate an alternative in which oil industry activities would be governed by action-specific incidental harassment authorizations each year. Nor does the Secretary consider an alternative excluding certain important habitat sites such as denning areas from the incidental take regulations.

152. The EA asserts that under the no-action alternative "Industry could continue to conduct exploration activities as planned without the benefit of mitigation measures proposed by the Service." EA at 22.

153. The EA asserts that "the issuance of incidental take regulations does not authorize the actual activities associated with oil and gas exploration or production." EA at 4.

154. The EA does not analyze the impacts of oil industry operations on polar bears and walrus. Instead, it only examines "the potential impacts of implementing regulations for the incidental take of walruses and polar bears in the Chukchi Sea Region on walruses, polar bears and the subsistence use of these resources." EA at 4.

155. The EA does not analyze any additional mitigation measures beyond those identified in the regulations. The EA does not quantifiably assess or establish the effectiveness of identified mitigation measures.

156. The EA asserts that past oil and gas exploration activities resulted in no population level impact to polar bears and Pacific walrus, yet gives no data to support such findings. The EA also gives little data to support its assertion that proposed impacts on Pacific walrus and polar bear will be negligible.

157. Despite acknowledging that climate change is already altering sea ice, resulting in “serious consequences” for the Pacific walrus and polar bear, and that those affects will “accumulate with oil and gas activities in the region,” the EA finds that these cumulative effects will be no more than negligible. The EA notes that in the future global climate change may affect polar bears’ spatial temporal distribution, and potentially reduce the Chukchi Sea population’s rates of survival and recruitment. The Pacific walrus will face shifts in range and abundance, population decline in prey species, increased mortalities resulting from storm events, and premature separation of females and dependant calves. The EA does not, however, quantify or further evaluate how the anticipated impacts of industrial activities might exacerbate these harms caused by climate change.

158. The EA does not quantify or analyze the contributions to climate change by the oil industry activities covered by the regulations.

159. The EA does not analyze the cumulative impacts of future oil industry operations in the Chukchi Sea, nor in adjacent areas of the Beaufort Sea and Russia that will affect the same populations of polar bears and Pacific walrus that are affected by the incidental take regulations.

160. The Secretary made a finding of no significant impact (“FONSI”) and declined to prepare an EIS for the incidental take regulations.

F. The ESA Consultation Process

161. The Secretary’s promulgation of the Chukchi Sea incidental take regulations constitutes “agency action” under the ESA. The Secretary carried out intra-agency consultation and on June 3, 2008 issued a biological opinion concluding that the incidental take regulations and subsequent LOAs would not jeopardize the polar bear. Programmatic Biological Opinion for Polar Bear (*Ursus maritimus*) on Chukchi Sea Incidental Take Regulations, June 3, 2008 (“BiOp”).

162. The biological opinion asserts that “the action under consideration is the Service’s proposed Chukchi Sea Incidental Take Regulations under section 101(a)(5) of the MMPA, not the Industry activities themselves.” BiOp at 7.

163. While the biological opinion asserts that it is not analyzing oil industry operations themselves, it does assert that federal approvals for such industry operations would be “greatly streamlined” if they are consistent with the incidental take regulations. BiOp at 8.

164. The biological opinion asserts that the “action area” for purpose of consultation is the 90,000 square miles of the Chukchi Sea and adjacent coastline in which incidental take is authorized. The biological opinion does not analyze any affects of the activities authorized by the regulations on polar bears outside of the “action area.”

165. The biological opinion states that this “action area” encompasses all direct and indirect effects of the proposed action. However, the biological opinion does not analyze any indirect effects of the regulations, such as the effects of industry operations on polar bears outside of the action area from vessels and aircraft transiting through the Beaufort and Bering

Seas, the effects of industry operations on the availability of prey for polar bears, or the effects of greenhouse gas emissions resulting from oil and gas exploration and production or effects on the availability of prey for polar bears.

166. The biological opinion assumes that a 190-dB exclusion zone will be free of polar bears whenever seismic surveys are operating. The biological opinion includes no measures to ensure the exclusion zone is monitored at night or in other poor visibility conditions.

167. The biological opinion does not estimate how many polar bears will be taken under the regulations.

168. The biological opinion acknowledges that movement data on polar bears does not reflect recent changes in bear behavior and distribution as a result of sea-ice loss. The biological opinion also admits that the Secretary does not know where within the entire Chukchi Sea area oil and gas exploration activities will take place. Nevertheless, the biological opinion concludes based on this data that very few bears will be exposed to oil industry activities.

169. The biological opinion acknowledges that polar bears are seasonally abundant in the Chukchi Sea and the action area of the regulations.

170. The biological opinion acknowledges that the current size of the polar bear populations subject to activities under the regulations, the Chukchi Sea and Southern Beaufort Sea populations are uncertain and that these populations are declining. The biological opinion also acknowledges that “[t]he populations of polar bears under consideration in this BO, primarily the [Chukchi Sea] and [Southern Beaufort Sea] stocks, inhabit the Polar Basin Divergent Ecoregion, an area documented to be undergoing the most dramatic and rapid reduction in seasonal sea ice, and accordingly are predicted to undergo the most rapid

population declines.” BiOp at 35 (“environmental baseline”).

171. The biological opinion acknowledges that climate change, hunting, oil and gas development, bear-human interactions, environmental contaminants, disease and predation are all having negative impacts on bears in the action area.

172. The biological opinion admits that activities under the regulations will likely result in disturbances of polar bears as they feed, travel, and attempt to raise their young. Project impacts include causing bears to flee and abandon ice floes where they would otherwise get crucial rest, causing mothers to abandon their dens, and increased risk of lethal interactions with humans. The biological opinion acknowledges that polar bears within the action area are increasingly physically stressed and subject to rapidly deteriorating habitat conditions, and that even “temporary” disturbances can be detrimental to individual polar bears. Yet the biological opinion concludes that any impacts to these populations from authorized activities will be negligible.

173. The biological opinion asserts that the regulations would require mitigation measures designed to avoid or minimize foreseeable adverse effects of Industry exploration activities on polar bears, and require monitoring to document the effectiveness of these measures as well as document incidental take of polar bears. The Secretary’s “no jeopardy” opinion rests largely on his assumption that these measures, including a number of unspecified measures that will allegedly be imposed on a project-by-project basis, will be sufficient to prevent harm to more than an unspecified “small number” of bears. The Secretary also rests his determination on monitoring efforts that will supposedly provide information regarding the success of various mitigation measures. Yet neither the regulations nor the biological opinion provide evidence that these measures provide sufficient protection or require that additional

measures be taken to avoid harm if information gleaned from monitoring efforts shows that current mitigation measures fall short.

174. The biological opinion does not analyze the significance of sublethal impacts from oil and gas exploration activities in the context of the life stage affected (e.g. mothers and cubs), the deteriorating physical condition of both polar bears and their habitat within the affected area, and the longer-term effects of accumulated action-related disturbances on bears affected by activities under the regulations.

175. The biological opinion states that the Secretary “has not identified any activities that are interdependent or interrelated with the proposed Regulations.” BiOp at 47. The biological opinion does not explain how the regulations may be viewed in isolation from the suite of oil exploration, development, and production activities they are designed to facilitate.

176. The “incidental take statement” contained in the biological opinion does not place any limit on the nature or number of non-lethal takes of polar bears that may take place under the regulations. In fact, the biological opinion admits that the Secretary “cannot anticipate the specific amount or extent of other types of take [i.e. other than immediately lethal take] that may result from activities that may be authorized under the Regulations until they are proposed and the specific activities and location is known.” BiOp at 52. The biological opinion nonetheless concludes that take will be limited to an unspecified “small number” of polar bears. The biological opinion further states that consultation must be reinitiated if “the amount or extent of incidental take is exceeded.” BiOp at 53. The incidental take statement contains no measurable criteria to determine if and when consultation must be reinitiated. The incidental take statement has sections entitled “reasonable and prudent measures” and “terms and conditions.” These sections do not impose any specific conditions to minimize the impacts of

the taking of polar bears from oil industry activities.

VI. CLAIMS FOR RELIEF

CLAIM I

(Violation of the Marine Mammal Protection Act, 16 U.S.C. § 1361 *et seq.*)

177. Each and every allegation set forth in the Complaint is incorporated herein, by reference.

178. The Secretary violated the MMPA in promulgating the Chukchi Sea incidental take regulations. 16 U.S.C. § 1371.

179. The MMPA allows the Secretary to promulgate regulations authorizing incidental take of polar bears and Pacific walrus for only a “specified activity,” meaning one that will have substantially similar effects on marine mammals. 16 U.S.C. § 1371(a)(5)(A)(i); 50 C.F.R. § 18.27(c). The Secretary issued regulations enabling the taking of polar bears and Pacific walrus by entities engaged in multiple activities related to onshore and offshore oil and gas exploration. These diverse activities affect polar bears and Pacific walrus in many distinct ways. The Secretary’s issuance of such broad incidental take regulations exceeds the statutory and regulatory limits on the Secretary’s authority to issue incidental take regulations and violates the MMPA.

180. The MMPA allows the Secretary to promulgate regulations authorizing incidental take of only “small numbers” of polar bears and Pacific walrus. 16 U.S.C. § 1371(a)(5)(A); 50 C.F.R. § 18.27(c). The Secretary improperly determined that the incidental takes enabled by its regulations will affect only “small numbers” of Pacific walrus and polar bear. In making this determination the Secretary relied upon an unlawful definition of “small numbers,” which conflates it with “negligible impact,” thereby rendering the term meaningless.

50 C.F.R. §18.27(c). In making the “small numbers” determination the Secretary failed to make an estimate of the number of polar bears and Pacific walrus that will be taken by the exploration activities subject to the proposed regulations. In making the “small numbers” determination the Secretary failed to utilize the best available science.

181. The MMPA allows the Secretary to promulgate regulations authorizing incidental take of polar bears and Pacific walrus only upon a finding, made after notice and opportunity for public comment and based on the best available scientific evidence, that the total of such taking during the period of authorization will have a “negligible impact” on the affected populations. 16 U.S.C. § 1371(a)(5)(A). The Secretary improperly determined that the incidental takes enabled by its regulations will have a negligible impact on the affected polar bear and Pacific walrus population. In making his negligible impact finding the Secretary failed to use the best available science, including failing to follow or adequately respond to the recommendations of the Marine Mammal Commission, failed to apply the appropriate legal standards, failed to account for the uncertainties in polar bear and Pacific walrus stock status, failed to consider all the direct and indirect effects of the authorized oil and gas activities, failed to properly consider the cumulative impacts of global warming and oil and gas activities on the affected polar bear and Pacific walrus stocks, and relied upon mitigation measures that are either not actually imposed by the regulations and/or have not been proven effective.

182. The MMPA allows the Secretary to promulgate regulations authorizing incidental take of polar bears and Pacific walrus only upon a finding, made after notice and opportunity for public comment, that the regulations ensure the “least practicable adverse impact” on Pacific walrus and polar bear. 16 U.S.C. § 1371(5)(A). The incidental take regulations do not comply with this statutory requirement. The incidental take regulations defer

the imposition of many necessary mitigation measures to the LOA stage. The incidental take regulations fail to require additional mitigation measures or, at a minimum, explain why such measures are not practicable.

183. The Chukchi Sea incidental take regulations purport to authorize only the “non-lethal” take of polar bears and Pacific walrus. A “serious injury” is an injury likely to lead to death and includes permanent hearing loss. Activities authorized by the regulations have the potential to result in serious injury, including permanent hearing loss, and/or mortality of polar bears and Pacific walrus. The mitigation measures included in the regulations are insufficient to eliminate the potential for oil industry activities to result in serious injury or mortality of polar bears and Pacific walrus. The Secretary cannot lawfully authorize some take (i.e. “non-lethal”) when other, unauthorized take (i.e. “serious injury” or mortality) is likely to occur.

184. For each of the above reasons, and others, the Secretary’s issuance of the June 11, 2008 Chukchi Sea incidental take regulations is arbitrary, capricious, and not in accordance with law as required by the MMPA and APA, and is subject to judicial review thereunder. 16 U.S.C. § 1371(a)(5); 5 U.S.C. §§ 701 through 706.

CLAIM II

(Violation of the Endangered Species Act, 16 U.S.C. § 1531 *et seq.*)

185. Each and every allegation set forth in the Complaint is incorporated herein, by reference.

186. The Secretary violated the ESA in issuing the June 3, 2008 Programmatic Biological Opinion for Polar Bear (*Ursus maritimus*) on Chukchi Sea Incidental Take Regulations. 16 U.S.C. § 1536.

187. The Secretary’s issuance of the June 3, 2008 Programmatic Biological Opinion

was arbitrary, capricious, and inconsistent with the law because the Secretary failed to utilize the best available scientific data as required by the ESA. 16 U.S.C. 1536 § (a)(2).

188. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the opinion contains an inadequate description of the proposed action, including an inadequate description of the action area. The biological opinion does not adequately address all the activities authorized by the Chukchi Sea incidental take regulations that adversely affect the polar bear.

189. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the opinion contains an inadequate and inaccurate description of the status of the species.

190. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the opinion contains an inadequate description of the environmental baseline. The environmental baseline section does not adequately describe the status of the species outside of the U.S. portion of the Chukchi Sea, nor does it adequately address its status within this area. This section also provides an inadequate analysis of other past, present and ongoing foreign, federal, state, and private actions that are affecting the environmental baseline.

191. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the opinion contains an inadequate "effects of the action" section. This section is shallow, conclusory, and does not utilize the best available science. For example, the biological opinion completely ignores the effects of seismic exploration, drilling, and other activities to be carried out under the regulations on the polar bear's prey.

192. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the opinion contains an inadequate analysis of cumulative effects. This section of the biological opinion lacks an adequate analysis of the effects of global warming and other state, private and foreign activities directly and indirectly affecting the polar bear. The biological opinion improperly limits its discussion of cumulative effects to those taking place directly within the "action area," which comprises only a portion of the polar bear's range, and fails to discuss numerous effects on the polar bear throughout the rest of its range.

193. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the Secretary failed to establish a rational connection between the biological opinion's findings that polar bear populations within the affected area are declining and projected to decline further in the future, oil and gas exploration activities under the regulations will cause additional impacts to polar bears, and his conclusion that the regulations nonetheless will not jeopardize the continued existence of the polar bear.

194. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the biological opinion relies for its "no jeopardy" conclusion on future management, monitoring, and mitigation measures that are not reasonably certain to occur, and for which the Secretary provides no evidence of their effectiveness in reducing harm, including sublethal take, to polar bears.

195. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the Secretary irrationally concluded that there are no actions that are interrelated or interdependent with the regulations,

even though the sole purpose of the regulations is to facilitate oil and gas exploration, leasing, development, and production.

196. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the Secretary failed to consider the effects of the regulations on the recovery of the polar bear. The Secretary failed to apply a lawful standard for determining whether the regulations would jeopardize the polar bear and therefore improperly reached a "no jeopardy" conclusion.

197. The Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and inconsistent with the law because the biological opinion included an incidental take statement that fails to adequately specify the impact of the incidental taking on the polar bear, fails to adequately specify reasonable and prudent measures necessary to minimize such impacts, fails to include terms and conditions implementing such reasonable and prudent measures, and fails to include any standards to determine if the allowable take has been exceeded. 16 U.S.C. § 1536(b)(4).

198. For each of the above reasons, and others, the Secretary's issuance of the June 3, 2008 Programmatic Biological Opinion was arbitrary, capricious, and not in accordance with law as required by the ESA and APA, and is subject to judicial review thereunder. 5 U.S.C. §§ 701-706.

CLAIM III

(Violation of the National Environmental Policy Act, 42 U.S.C. §4321 *et seq.*)

199. Each and every allegation set forth in the Complaint is incorporated herein, by reference.

200. The Secretary violated NEPA in promulgating the Chukchi Sea incidental take

regulations without preparing an EIS. NEPA requires the preparation of an EIS for all “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1501.4. The Secretary’s issuance of the Chukchi Sea incidental take regulations is a major federal action significantly affecting the quality of the human environment. The Secretary’s conclusion that preparation of an EIS prior to issuance of the Chukchi Sea incidental take regulations was not required was arbitrary, capricious, and inconsistent with the law.

201. Numerous factors requiring the preparation of an EIS are triggered by the Secretary’s issuance of the Chukchi Sea incidental take regulations. The CEQ regulations list ten factors that must be considered in determining the significance of an action’s environmental effects. 40 C.F.R. § 1508.27. Among these are that the action affects “ecologically critical areas,” is “highly controversial,” involves possible effects that are “highly uncertain or involve unique or unknown risks,” is related to other actions with “cumulatively significant impacts,” and “may adversely affect an endangered or threatened species.” 40 C.F.R. §§ 1508.27(b)(3)(4), (5), (7) & (9). The presence of any or all of these factors renders the Secretary’s decision to not prepare an EIS arbitrary, capricious, and inconsistent with the law.

202. The Secretary violated NEPA by preparing an inadequate EA and issuing a FONSI for the Chukchi Sea incidental take regulations. The EA failed to take a hard look at the environmental impacts of the Chukchi Sea incidental take regulations, failed to evaluate all important aspects of such impacts, and failed to make a reasoned decision based on the facts found.

203. The Secretary violated NEPA by failing to analyze all the effects of the Chukchi Sea incidental take regulations. The EA failed to analyze the direct and indirect impacts of the

oil industry activities that could not lawfully occur absent authorization from the Secretary.

204. The Secretary violated NEPA in reaching his finding of no significant impacts by relying upon mitigation measures that have not been adopted or imposed, whose efficacy is insufficiently supported, and for which the Secretary provides neither criteria for measuring success nor standards governing proper application.

205. The Secretary violated NEPA in preparing an EA that failed to analyze a reasonable range of alternatives to the proposed action. The EA considered and evaluated only the proposed action and a no-action alternative. The EA analyzed an improper “no-action” alternative.

206. For each of the above reasons, and others, the Secretary’s issuance of the Chukchi Sea incidental take regulations without preparing an EIS is arbitrary, capricious, and not in accordance with law as required by NEPA, its implementing regulations, and the APA, and is subject to judicial review under the APA. 5 U.S.C. §§701-706, 706(2).

207. For each of the above reasons, and others, the Secretary’s adoption of an inadequate EA and a FONSI for the issuance of the Chukchi Sea incidental take regulations is arbitrary, capricious, and not in accordance with law as required by NEPA, its implementing regulations, and the APA, and is subject to judicial review under the APA. 5 U.S.C. §§701-706, 706(2).

VII. PRAYER FOR RELIEF

Therefore, Plaintiffs respectfully request that the Court:

1. Declare that the Secretary violated the MMPA and the APA in promulgating the Chukchi Sea incidental take regulations;

2. Declare that the Secretary violated the ESA and the APA in issuing the biological opinion for the Chukchi Sea incidental take regulations;
3. Declare that the Secretary violated NEPA and the APA by failing to prepare an EIS before issuance of the Chukchi Sea incidental take regulations;
4. Issue an order setting aside as unlawful the Chukchi Sea incidental take regulations and the underlying EA, FONSI and biological opinion and any LOAs issued pursuant to such regulations;
5. Award Plaintiffs the costs of this action, including reasonable attorney's fees pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412; and
6. Grant such other relief as the Court deems just and proper.

Dated: July 8, 2008.

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