FOR PUBLICATION

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

CENTER FOR BIOLOGICAL DIVERSITY; PACIFIC ENVIRONMENT, Plaintiffs-Appellants, v. KENNETH LEE SALAZAR, Secretary of the Interior; U.S. FISH AND WILDLIFE SERVICE, Defendants-Appellees, ALASKA OIL AND GAS ASSOCIATION, Defendant-intervenor-Appellee.

No. 10-35123 D.C. No. 3:08-cv-00159-RRB OPINION

Appeal from the United States District Court for the District of Alaska Ralph R. Beistline, Chief District Judge, Presiding

> Argued and Submitted June 28, 2012—Fairbanks, Alaska

> > Filed August 21, 2012

Before: Alfred T. Goodwin, William A. Fletcher, and Milan D. Smith, Jr., Circuit Judges.

Opinion by Judge William A. Fletcher

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OPINION

W. FLETCHER, Circuit Judge:

This case involves U.S. Fish and Wildlife Service ("Service") regulations under Section 101(a)(5)(A) of the Marine Mammal Protection Act ("MMPA") that authorize incidental take of polar bears and Pacific walruses resulting from oil and gas exploration activities in the Chukchi Sea and on the adjacent coast of Alaska. The Center for Biological Diversity and Pacific Environment (collectively "Plaintiffs") brought suit challenging the regulations and accompanying environmental review documents under the MMPA, Endangered Species Act ("ESA"), and National Environmental Policy Act ("NEPA"). The district court granted summary judgment to the Service. We affirm.

I. Background

The Chukchi Sea off the North Slope of Alaska is a promising location for oil and gas exploration and development. It also is home to polar bears and Pacific walruses, both of which are marine mammals protected under the MMPA. There are two polar bear stocks in Alaska, with a total estimated population of about 3,500 animals. Surveys taken between 1975 and 1990 estimated the total population of Pacific walruses in the area to be between 200,000 and 250,000 animals. Both polar bears and Pacific walruses migrate seasonally with the advance and retreat of the sea ice habitat on which they rely for survival. In May 2008, the Service listed the polar bear as a threatened species under the ESA because of projected reductions in sea ice caused by climate change. 73 Fed. Reg. 28,212 (May 15, 2008). The Pacific walrus is not presently listed as threatened or endangered under the ESA.

A. Incidental Take Under the MMPA

The MMPA generally prohibits the "take" of marine mammals. 16 U.S.C. § 1371(a). "Take" is defined broadly under the MMPA to encompass "harassment," including any act of "torment" or "annoyance" that "has the potential to injure . . . or . . . disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering." *Id.* § 1362(13), (18)(A)(i)-(ii). Unlawful take is subject to a civil penalty of up to \$10,000 for each violation. *Id.* § 1375(a)(1). A knowing violation is subject to a criminal penalty of up to a year in prison and a \$20,000 fine. *Id.* § 1375(b).

The MMPA allows several exceptions to the general take prohibition, including take for scientific research and for public display, as well as incidental take in the course of commercial fishing. *Id.* § 1371(a)(1)-(2). At issue in this appeal is an exception under Section 101(a)(5)(A) for incidental, but not intentional, take of "small numbers" of marine mammals from "a specified activity (other than commercial fishing) within a specified geographical region." *Id.* § 1371(a)(5)(A)(i). The Service will authorize such take of "small numbers" of mammals for up to five years if it determines that the total incidental take would have a "negligible impact" on the relevant species or stock and would not have an "unmitigable adverse impact" on availability for specified subsistence uses. *Id.* \$ 1371(a)(5)(A)(i)(I). If the Service makes the required findings, it may issue regulations — such as those challenged in this appeal — specifying permissible methods of take pursuant to the activity, specifying other means of effecting the least practicable adverse impact on the species, and specifying monitoring and reporting requirements for the authorized take. *Id.* \$ 1371(a)(5)(A)(i)(II).

In 1983, the Service promulgated regulations implementing Section 101(a)(5) of the MMPA. 48 Fed. Reg. 31,220 (July 7, 1983) (codified at 50 C.F.R. § 18.27). The implementing regulations establish a two-step process: first, the Service issues incidental take regulations that govern a specified activity in a specified geographic region for up to five years; second, the Service issues letters of authorization ("LOAs") to individual applicants authorizing their incidental take under the regulations. 50 C.F.R. § 18.27(e)-(f). Before issuing an LOA, the Service must determine that the level of anticipated incidental take is consistent with the five-year regulations. Id. § 18.27(f)(2). The implementing regulations define "small numbers" as "a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock." Id. § 18.27(c). They define "negligible impact" as an impact that is not reasonably likely or expected to "adversely affect the species or stock through effects on annual rates of recruitment or survival." Id.

The oil and gas industry for more than two decades has requested and received incidental take authorization for its exploration, development, and production activities off the coast of northwestern Alaska. Between 1993 and 2006, the Service issued a series of regulations authorizing incidental take of polar bears and Pacific walruses in the Beaufort Sea. 58 Fed. Reg. 60,402 (Nov. 16, 1993); 60 Fed. Reg. 42,805 (Aug. 17, 1995); 64 Fed. Reg. 4,328 (Jan. 28, 1999); 65 Fed. Reg. 5,275 (Feb. 3, 2000); 65 Fed. Reg. 16,828 (Mar. 30, 2000); 68 Fed. Reg. 66,744 (Nov. 28, 2003); 71 Fed. Reg. 43,926 (Aug. 2, 2006). In 1991, the Service issued regulations authorizing incidental take in the adjacent Chukchi Sea. 56 Fed. Reg. 27,443 (June 14, 1991). Little to no oil and gas exploration occurred in the Chukchi Sea over the next fifteen years. However, new opportunities for exploration and development in the Chukchi Sea prompted the Alaska Oil and Gas Association ("Association") to request another set of five-year incidental take regulations in 2005.

B. 2008 Chukchi Sea Regulations

In response to the Association's request, the Service in June 2007 published proposed regulations authorizing incidental, nonlethal take of polar bears and Pacific walruses resulting from oil and gas exploration activities in the Chukchi Sea. 72 Fed. Reg. 30,670 (June 1, 2007). Previous incidental take regulations in the Beaufort and Chukchi Seas covered oil and gas exploration, development, and production. The new regulations cover only exploration activities — such as onshore and offshore seismic surveys, exploratory drilling, and associated support operations.

In July 2007, Plaintiffs filed comments with the Service criticizing the proposed incidental take regulations. The Marine Mammal Commission, an independent federal agency created under the MMPA to advise the Service, submitted comments recommending that the Service defer issuing final regulations until it developed more effective monitoring and mitigation strategies and gathered more information about the effects of exploration activities on the mammals.

In March 2008, the Service issued an Environmental Assessment ("EA") for the proposed regulations pursuant to NEPA. 40 C.F.R. § 1508.9. The EA concludes that the incidental take regulations, along with accompanying mitigation measures, "would result in no measurable impacts o[n] the

physical environment," and "the overall impact would be negligible on polar bear and Pacific walrus populations."

Because promulgation of the regulations would constitute "agency action" under Section 7 of the ESA, the Service's Marine Mammal Office consulted internally with the Fairbanks Fish and Wildlife Field Office regarding the regulations' effects on the threatened polar bear. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.02. In May 2008, the Fairbanks office issued a Biological Opinion ("BiOp") concluding that the incidental take regulations were not likely to jeopardize the continued existence of the polar bear. The BiOp notes that "(1) the Regulations do not authorize[] lethal take, (2) the Chuckchi Sea Regulations will be implemented in a similar manner to the Beaufort Sea Regulations, which have been in place almost continuously since 1993, and (3) few bears are likely to be encountered, and those that are encountered are likely to alter their behavior only temporarily if at all." The BiOp does not consider effects on the Pacific walrus because the species is not listed as threatened or endangered under the ESA.

In June 2008, the Service issued a final rule for the Chukchi Sea incidental take regulations. 73 Fed. Reg. 33,212 (June 11, 2008) (codified at 50 C.F.R. §§ 18.111-18.119). The regulations encompass a geographic area of about 90,000 square miles, including the waters and seabed of the Chukchi Sea, as well as adjacent coastal land extending about 25 miles inland. The regulations anticipate up to four offshore seismic survey vessels operating in a given year, each accompanied by three support vessels, and up to three drill ships, each drilling as many as four wells and accompanied by icebreakers, barges, helicopters, and supply ships. Id. at 33,215-16. Onshore, the regulations anticipate the drilling of as many as six wells and the construction of up to 100 miles of roads and four airfield runways. Id. at 33,216. The final rule acknowledges that nonlethal, incidental harassment of polar bears and Pacific walruses is reasonably likely or expected to occur as a result of the proposed activities. *Id.* at 33,223-32. However, it notes that onshore activities are not expected to occur near known polar bear denning areas or walrus haulouts, and that offshore activities will occur during the open water season (July through November) to avoid disturbing pack ice on which the mammals rely. *Id.* at 33,214. The rule incorporates into its analysis mitigation measures that would be imposed on the activities, such as restrictions on the location and spacing of offshore seismic surveys. *See, e.g., id.* at 33,216-18.

The final rule concludes, with "a high level of confidence," that "any incidental take reasonably likely to result from the effects of the proposed activities, as mitigated through this regulatory process, will be limited to small numbers of wal-ruses and polar bears." *Id.* at 33,234-36. The Service explains that

the number of animals likely to be affected is small, because: (1) A small portion of the Pacific walrus population or the Chukchi Sea and Southern Beaufort Sea polar bear populations will be present in the area of Industry activities, (2) of that portion, a small percentage will come in contact with Industry activities, and (3) the response by those animals will likely be minimal changes in behavior.

Id. at 33,236.

The final rule also concludes that the incidental take authorized under the regulations would have only a "negligible impact" on the polar bears and Pacific walruses. It concludes that "any incidental take reasonably likely to result from the effects of oil and gas related exploration activities during the period of the rule, in the Chukchi Sea and adjacent western coast of Alaska[,] will have no more than a negligible effect on the rates of recruitment and survival of polar bears and Pacific walruses in the Chukchi Sea Region." *Id*. The regulations require a separate LOA for each proposed exploration activity. Applicants for an LOA must submit an operations plan, a polar bear interaction plan, and a site-specific mitigation and monitoring plan. 50 C.F.R. §§ 18.114, 18.118. The Service will tailor its mitigation and monitoring requirements based on the location, timing, and nature of the proposed activity. *Id.* § 18.116(b). The regulations do not authorize lethal or intentional take. *Id.* § 18.117(a). In July 2008, the Service began issuing LOAs for exploration activities in the Chukchi Sea under the incidental take regulations. The regulations are valid through June 11, 2013. *Id.* § 18.113.

C. Procedural Background

Plaintiffs filed suit against the Service, alleging that the five-year incidental take regulations, the accompanying BiOp, and the EA fail to comply with the MMPA, ESA, and NEPA. The Association intervened as co-defendants.

Plaintiffs had previously challenged the Service's 2006 regulations authorizing incidental take of polar bears and Pacific walruses from oil and gas activities in and along the Beaufort Sea. In December 2009, we upheld the Service's 2006 Beaufort Sea regulations under the MMPA and NEPA. *Ctr. for Biological Diversity v. Kempthorne*, 588 F.3d 701 (9th Cir. 2009). Among other things, we let stand the Service's determinations that the authorized incidental take would have only a "negligible impact" on the marine mammal populations, and that the regulations would not have a significant impact on the environment. *Id.* at 710-12.

A month after our decision in *Kempthorne*, the district court in this case granted summary judgment to the Service and the Association. Plaintiffs timely appealed.

II. Standard of Review

We review *de novo* a district court's grant or denial of summary judgment. *Humane Soc'y v. Locke*, 626 F.3d 1040, 1047 (9th Cir. 2010). We review an agency's compliance with the MMPA, ESA, and NEPA under the Administrative Procedure Act. *Id.* (MMPA and NEPA); *City of Sausalito v. O'Neill*, 386 F.3d 1186, 1205-06 (9th Cir. 2004) (NEPA and ESA). We may not set aside an agency decision unless it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). A decision is arbitrary and capricious if the agency

relied on factors Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation that runs counter to the evidence before the agency or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Lands Council v. McNair, 537 F.3d 981, 987 (9th Cir. 2008) (en banc) (internal quotation marks omitted), overruled on other grounds by Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7 (2008).

We review an agency's interpretation of a statute it is charged with administering under the familiar two-step framework set forth in Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837 (1984). We first determine whether "Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." Id. at 842-43. However, "if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." Id. at 843. "If a statute is ambiguous, and if the implementing agency's construction is reasonable, Chevron requires a federal court to accept the agency's construction of the statute, even if the agency's reading differs from what the court believes is the best statutory interpretation." Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 980 (2005).

III. Discussion

Plaintiffs allege that the Service's incidental take regulations and accompanying environmental review documents fail to comply with the MMPA, ESA, and NEPA. We take the arguments under each statute in turn.

A. MMPA

Plaintiffs make three arguments under the MMPA. First, they argue that the Service relied on an impermissible regulatory definition that conflates the question whether an authorized take is for "small numbers" of mammals with the separate question whether the take will result in a "negligible impact" on the species or stock. Second, they argue that the Service improperly authorized incidental take without quantifying how many polar bears and Pacific walruses would be taken. Third, they argue that the Service's qualitative "small numbers" finding was based on false assumptions and bad science. The arguments challenge the Service's "small numbers" interpretation as applied in the 2008 rule, as well as the substance of the Service's "small numbers" determination.

1. "Small Numbers" Interpretation

[1] Under Section 101(a)(5)(A) of the MMPA, citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region may request authorization for incidental, but not intentional, take of "small numbers" of marine mammals pursuant to that activity for a period of no more than five years. 16 U.S.C. § 1371(a)(5)(A)(i). The Service shall allow such take if it determines *inter alia* that the total incidental take during the five-year period will have only a "negligible impact" on the relevant species or stock. *Id.* § 1371(a)(5)(A)(i)(I). [2] The 1983 regulations implementing Section 101(a)(5) define "small numbers" as "a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock." 50 C.F.R. § 18.27(c). The implementing regulations, as amended, define "negligible impact" as an impact that is not reasonably likely or expected to "adversely affect the species or stock through effects on annual rates of recruitment or survival." *Id.*

Plaintiffs argue that the 1983 regulatory definition is an impermissible construction of the statute because it renders the "small numbers" language superfluous by conflating it with the separate "negligible impact" standard. Plaintiffs point to Natural Res. Def. Council, Inc. v. Evans, 279 F. Supp. 2d 1129, 1150-53 (N.D. Cal. 2003), decided by Magistrate Judge Laporte, which held precisely this in a challenge to incidental take regulations promulgated by the National Marine Fisheries Service ("NMFS") under Section 101(a)(5)(A). NMFS, through the Secretary of Commerce, administers the MMPA with respect to cetaceans (whales, dolphins, and porpoises) and pinnipeds (seals and sea lions) other than walruses. 16 U.S.C. § 1362(12)(A)(i). The Service, through the Secretary of the Interior, administers the MMPA with respect to all other marine mammals, including polar bears and Pacific walruses. Id. § 1362(12)(A)(ii).

It is "a cardinal principle of statutory construction" that a statute should be construed, if possible, so that "no clause, sentence, or word shall be superfluous, void, or insignificant." *TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001) (quoting *Duncan v. Walker*, 533 U.S. 167 (2001)) (internal quotation marks omitted); *see also Nevada v. Watkins*, 939 F.2d 710, 715 (9th Cir. 1991) ("It is a fundamental rule of statutory construction that we should avoid an interpretation of a statute that renders any part of it superfluous and does not give effect to all of the words used by Congress." (internal alteration and quotation marks omitted)). Section 101(a)(5)(A) of the MMPA provides that the Service shall allow incidental take of "small num-

bers" of marine mammals *if* the Service "finds that the total of such taking . . . will have a negligible impact on [the relevant] species or stock." 16 U.S.C. § 1371(a)(5)(A)(i)(I). The district court observed in *Evans*, "The plain language indicates that 'small numbers' is a separate requirement from 'negligible impact.' To treat them as identical would appear to render the reference to 'small numbers' mere surplusage." 279 F. Supp. 2d at 1150. We agree. That is, by defining "small numbers" as any amount that would have a "negligible impact," the implementing regulations allow the Service to authorize the incidental take of large numbers of mammals, so long as that take did not have more than a negligible impact on the relevant species or stock. This authorization, while complying with the 1983 regulatory definition, violates the plain language of the statute.

[3] Legislative history confirms our reading of the statute if such confirmation is needed. The House Report accompanying Section 101(a)(4)-(5) of the MMPA indicates that Congress intended "small numbers" and "negligible impact" to serve as two separate standards. The Report explains:

The taking authorized under these new provisions is the taking of small numbers of marine mammals. The Committee recognizes the imprecision of the term 'small numbers', but was unable to offer a more precise formulation because the concept is not capable of being expressed in absolute numerical limits. The Committee intends that these provisions be available for persons whose taking of marine mammals is infrequent, unavoidable, or accidental.

It should also be noted that these new provisions of the Act provide *an additional and separate safeguard* in that the Secretary must determine that the incidental takings of small numbers of marine mammals have a 'negligible' impact upon the species from which such takings occur. *This additional test* is meant to serve as a separate standard restricting the authority of the Secretary. . . . Unless a particular activity takes only small numbers of marine mammals, and that taking has a negligible impact on the species, the new provisions of sections 101(a)(4) and (5) are not applicable to that activity.

Id. at 1150-51 (quoting H.R. Rep. No. 97-228 (1981), *reprinted in* 1981 U.S.C.C.A.N. 1458, 1469) (emphasis in *Evans*). As a result, incidental take permitted under Section 101(a)(5)(A) "must be small *and* have [only] a negligible impact on the affected species or stock of marine mammals." *Id.* at 1152 (emphasis in original).

[4] The Service dismisses the district court's opinion in *Evans* in a footnote and suggests that the court failed to apply the proper *Chevron* framework. The Service is mistaken. The court in *Evans* properly relied on "Congress' intent" and the "plain language" of the MMPA to hold that the agency's interpretation was an impermissible construction of the statute. *Id.* at 1153. As *Chevron* recognized,

The judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent. If a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect.

467 U.S. at 843 n.9 (internal citations omitted). The *Evans* court quoted from this *Chevron* passage in its analysis. *Evans*, 279 F. Supp. 2d at 1153 (quoting *Chevron*, 467 U.S. at 843 n.9). We agree with *Evans* that "[t]o effectuate Congress' intent, 'small numbers' and 'negligible impact' must be defined so that each term has a separate meaning." *Id*.

The Service and Association contend that any facial challenge to the 1983 regulatory definition of "small numbers" is barred by the six-year statute of limitations for civil actions against the United States. 28 U.S.C. § 2401(a). The Evans court addressed the same argument and held that "plaintiffs are time-barred from challenging the [1983] regulation itself, but are not time-barred from challenging the application of that regulation to them." Evans, 279 F. Supp. 2d at 1148. We agree. Although Plaintiffs cannot challenge facially the 1983 regulatory definition, they can challenge the Service's alleged application of that definition in the 2008 Chukchi Sea regulations as exceeding the agency's statutory authority. See Nw. Envtl. Advocates v. U.S. Envtl. Prot. Agency, 537 F.3d 1006, 1018-19 (9th Cir. 2008); Wind River Mining Corp. v. United States, 946 F.2d 710, 715 (9th Cir. 1991) (a plaintiff may contest "an agency decision as exceeding constitutional or statutory authority . . . later than six years following the decision by filing a complaint for review of the adverse application of the decision to the particular challenger"). Accordingly, we must determine whether the Service applied the 1983 regulatory definition, as opposed to some other permissible definition, in promulgating the contested 2008 incidental take regulations.

The Chukchi Sea regulations that were initially proposed in 2007 clearly applied the impermissible regulatory definition by conflating the "small numbers" and "negligible impact" standards. See 72 Fed. Reg. at 30,690-92. However, in the spring of 2008, based in part on criticisms of the proposed regulations made in comments filed by Plaintiffs, Service officials voiced internal concerns about the legal defensibility of the proposed "small numbers" analysis. The Service significantly redrafted the analysis in its preparation of the final regulations. Compare id., with 73 Fed. Reg. at 33,233-37. The 2008 final rule for the Chukchi Sea incidental take regulations cites the 1983 "small numbers" regulatory definition in its preamble, 73 Fed. Reg. at 33,212 (citing 50 C.F.R. § 18.27), and asserts in response to comments that "[t]he Service's analysis of 'small numbers' complies with the agency's [1983] regulatory definition," id. at 33,244. However, the 2008 final rule analyzes the "small numbers" and "negligible impact" standards separately under different headings. It determines that "the number of walrus and polar bear taken by this activity will be small *and* the effect on their respective populations negligible." *Id.* at 33,235 (emphasis added). The final rule, challenged in this case, is thus different from the incidental take regulations struck down in *Evans*, which applied the 1983 regulatory definition and conflated the two standards. *See* 67 Fed. Reg. 46,712, 46,764 (July 16, 2002) ("NMFS continues to believe that its [1983] regulatory definition is consistent with Congressional intent."); *id.* at 46,780 (analyzing "small numbers" and "negligible impact" together).

Plaintiffs argue that even though the Service analyzes the two standards under separate headings in its 2008 final rule, the agency applies a concept of "relatively small numbers" that eviscerates any distinction from the "negligible impact" standard. In the rule, the Service interprets "small numbers" to mean small *relative to* the size of the mammals' larger population. See, e.g., 73 Fed. Reg. at 33,233 ("[O]nly small numbers of Pacific walrus and polar bears are likely to be taken incidental to the described Industry activities relative to the number of walruses and polar bears that are expected to be unaffected by those activities." (emphasis added)); id. at 33,232 ("[W]e conclude that the proposed exploration activities, as mitigated through the regulatory process, will impact relatively small numbers of animals" (emphasis added)); id. at 33,245 ("Although a numerical estimate . . . could not be practically obtained, the Service deduced that only small numbers of Pacific walruses and polar bears, relative to their populations, have the potential to be impacted by the proposed Industry activities described in these regulations." (emphasis added)). Plaintiffs argue that "while 'negligible impact' may be a relative concept, 'small numbers' is an absolute limit that may not be defined in relation to population size, distribution, or other demographics." They contend that the "small numbers" language in Section 101(a)(5)(A) requires the Service to quantify in absolute terms the number of mammals that would be taken by the covered activities pursuant to the incidental take regulations. The Service does not provide a numerical estimate of the take that would occur under the 2008 Chukchi Sea regulations.

We agree with the Service that Congress has not spoken directly to the question whether "small numbers" can be analyzed in relative or proportional terms. As the Service observed in its brief, "'Small numbers' in this context does not have a plain meaning that unambiguously forbids use of a proportional approach." Legislative history reveals that Congress recognized "the imprecision of the term 'small numbers,' but was unable to offer a more precise formulation because the concept is not capable of being expressed in absolute numerical limits." H.R. Rep. No. 97-228, reprinted in 1981 U.S.C.C.A.N. at 1469 (emphasis added). Nor is there anything in Section 101(a)(5)(A) that requires the Service, when promulgating incidental take regulations, to quantify or estimate the number of mammals that would be taken. In contrast, Congress expressly required numerical estimates in other provisions of the MMPA. See, e.g., 16 U.S.C. § 1374(b)(2)(A) (requiring that any permit for take of marine mammals for purposes like scientific research shall "specify the number and kind of animals which are authorized to be taken or imported"); id. § 1386(a)(2) (requiring that the Secretary of Commerce prepare an assessment specifying "the minimum population estimate" for each marine mammal stock in U.S. waters); id. § 1387(f)(4)(B) (requiring that take reduction plans include "an estimate of the total number . . . of animals from the stock that are being incidentally lethally taken or seriously injured each year during the course of commercial fishing operations, by fishery"). Plaintiffs note that the 1983 implementing regulations require parties requesting an incidental take authorization to submit, along with their request, "[a]n estimate of the species and numbers of marine mammals likely to be taken." 50 C.F.R. § 18.27(d)(1)(iii)(A). However, a regulation requiring that private parties submit estimates is immaterial to whether the statute requires that the Service quantify estimates of its own.

Because we find that the statute is silent or ambiguous on the precise question at issue, *Chevron* commands that we accept the agency's interpretation so long as it is reasonable, even if it is not the reading that we would have reached on our own. 467 U.S. at 843 & n.11. The key interpretative requirement of the Section 101(a)(5)(A) language is that "small numbers" and "negligible impact" remain distinct standards. The Service explains in its brief to us how "relatively small numbers" can have a meaning distinct from "negligible impact." Specifically, the "small numbers" determination focuses on the portion of a species or stock subject to incidental take, whereas the "negligible impact" analysis focuses on the impact of the anticipated take — that is, on whether the type and duration of take or harassment may adversely affect the species' annual rates of recruitment or survival. The Service explains that "even if a proposed activity affects only a small number of animals, the Service could still find[] that the taking will have more than a negligible effect on the species or stock, particularly if the impact on those particular animals is severe, or if those animals are of great importance to the species or stock." For example, anticipated harassment of even small numbers of mammals might prevent mating or reproduction during key parts of the year, or might result in lethal take of newborn mammals. These circumstances could pose more than a negligible impact on the relevant species or stock, even if they directly affect only small numbers of mammals relative to the population as a whole. Likewise, a proposed activity might harass a large portion of the relevant mammal population, but have only a negligible impact on the species or stock because the harassment is merely trivial and fleeting. The Service still could not allow such a take under Section 101(a)(5)(A) because it would result in a take of more than "small numbers" of mammals. As the House Report explained, "Unless a particular activity takes only small numbers of marine mammals, and that taking has a negligible *impact* on the species, the new provisions of sections 101(a)(4) and (5) are not applicable to that activity." H.R. Rep. No. 97-228, *reprinted in* 1981 U.S.C.C.A.N. at 1469 (emphasis added).

We find this interpretation of Section 101(a)(5)(A) both reasonable and persuasive. The Service's "small numbers" analysis in the 2008 final rule focuses primarily on the location of the exploration activities in relation to the mammals' larger populations, whereas the "negligible impact" analysis considers the likely effects of interactions on the mammals' recruitment and survival. Thus, in making its "small numbers" determination, the final rule concludes that "given the spatial distribution, habitat requirements, and observed and reported data, the number of animals coming in contact with the industry activity will be small by an order of magnitude to the [relevant walrus and] polar bear populations." 73 Fed. Reg. at 33,235. In making its "negligible impact" determination, the rule notes that "[t]he predicted effects of proposed activities on walruses and polar bears will be nonlethal, temporary passive takes of animals." Id.

We note that the Service relies on many of the same factors in making the two determinations. For example, the final rule does not limit its "small numbers" analysis to the portion of the polar bear and walrus populations subject to incidental take. It also looks at the nature of the anticipated take and the mammals' behavioral response — factors that more appropriately address the "negligible impact" standard. See id. at 33,236 ("[T]he number of animals likely to be affected is small, because . . . the response by those animals will likely be minimal changes in behavior."); see also, e.g., id. at 33,234 ("The behavioral responses and the effects were limited to short-term, minor behavioral changes, primarily dispersal or diving. None of the take that occurred would have affected reproduction, survival, or other critical life functions."); id. at 33,235 ("[T]he behavioral response observed [from prior interactions] was a very passive form of take. . . . Such response would not have affected reproduction, survival, or other critical life functions. This same level of behavioral response is expected if encounters occur during future operations[.]"). We recognize, as the Service argues in its brief, that there will inevitably be "some overlap" between the two standards. The Service can (and should) do a better job of keeping the standards distinct when promulgating future incidental take regulations under Section 101(a)(5)(A). However, we uphold the "small numbers" interpretation as applied in the 2008 rule because the Service's "small numbers" and "negligible impact" analyses are sufficiently distinct to survive our deferential review.

[5] In sum, we hold that "small numbers" and "negligible impact" are distinct standards that the Service must satisfy when promulgating incidental take regulations under Section 101(a)(5)(A) of the MMPA. The Service need not quantify the number of marine mammals that would be taken under the regulations, so long as the agency reasonably determines through some other means that the specified activity will result in take of only "small numbers" of marine mammals. The Service can analyze "small numbers" in relation to the size of the larger population, so long as the "negligible impact" finding remains a distinct, separate standard. Because the Service analyzed it as a distinct standard in the 2008 final rule, we uphold the agency's "small numbers" interpretation as applied in the challenged regulations.

2. "Small Numbers" Determination

Plaintiffs argue that, even if the Service applied a permissible "small numbers" interpretation in the 2008 final rule, the substance of the agency's "small numbers" analysis is arbitrary and capricious because (1) it accounts for only some of the proposed oil and gas exploration activities, and (2) it relies on "unproven" or "inadequate" monitoring and mitigation techniques. Notably, however, Plaintiffs do not challenge the Service's "negligible impact" finding, as they did in their unsuccessful challenge to the Service's 2006 Beaufort Sea incidental take regulations. *See Kempthorne*, 588 F.3d at 711 (upholding the Service's "negligible impact" finding because the agency "made scientific predictions within the scope of its expertise, the circumstance in which we exercise our greatest deference").

[6] First, Plaintiffs argue that the Service's "small numbers" determination is arbitrary and capricious because the analysis ignores expected impacts from oil and gas support operations and onshore activities. Plaintiffs concede that the Service discusses these impacts elsewhere in the final rule. See, e.g., 73 Fed. Reg. at 33,224 ("[N]oise and disturbance from aircraft and vessel traffic associated with exploration projects are expected to have relatively localized, short-term effects."); id. at 33,227 ("Onshore activities will have the potential to interact with polar bears mainly during the fall and ice-covered season when bears come ashore to feed, den, or travel."). It is true that the final rule's "small numbers" analysis focuses primarily on offshore, open-water exploration activities. However, this focus is not irrational because the analysis notes that these are the areas "where the majority of the proposed activities would occur." 73 Fed. Reg. at 33,234. Moreover, the "small numbers" analysis does refer to onshore activities, expressly noting that "[w]here terrestrial activities may occur in coastal areas of Alaska in polar bear denning habitat, specific mitigation measures will be required to minimize Industry impacts." Id. The final rule also explains, in response to comments:

[W]e expect industry operations will only interact with small numbers of these animals in open water habitats. Of course, *some of the proposed exploratory activities will occur on land* as well. However, we have reviewed the proposed activities, *both on land and at sea*, and [t]his review leads us to conclude that, while some incidental take of walruses and polar bears is reasonably expected to occur, these takes will be limited to non-lethal disturbances, affecting a small number of animals

Id. at 33,244 (emphasis added).

[7] Second, Plaintiffs argue that the Service's "small numbers" determination relies on mitigation and monitoring measures "that are either unproven or that have been shown to be inadequate." However, the overall record supports the Service's conclusion that the mitigation and monitoring measures are effective. The 2008 Chukchi Sea rule notes that "[t]he mitigation measures associated with the Beaufort Sea incidental take regulations have proven to minimize human-bear interactions and will be part of the requirements of future LOAs associated with the Chukchi Sea incidental take regulations." Id. at 33,229. The Service's rule listing the polar bear as threatened under the ESA notes that the "mitigative regulations" imposed on oil and gas activities "have proven to be highly successful in providing for polar bear conservation in Alaska." 73 Fed. Reg. 28,212, 28,265-66 (May 15, 2008). Indeed, we implicitly endorsed the Service's mitigation measures when we analyzed Plaintiffs' challenge to the 2006 Beaufort Sea incidental take regulations under NEPA. See Kempthorne, 588 F.3d at 712 ("[T]he EA provides convincing reasons to believe that incidental take regulations will ameliorate the impact of takes. LOAs include mitigating guidelines that minimize disturbances to, among other things, denning females."). Accordingly, we hold that the Service's "small numbers" determination is not arbitrary and capricious.

B. ESA

Plaintiffs' arguments under the ESA echo some of their arguments under the MMPA. First, Plaintiffs fault the Service's BiOp for relying on allegedly unproven and ineffective mitigation. In its conclusion that the 2008 Chukchi Sea regulations are not likely to jeopardize the continued existence of the polar bear, the BiOp notes, "Although Industry activities may adversely affect a small number of polar bears within the action area, mitigating measures included in the proposed action reduce the potential for exposure to adverse effects" Plaintiffs' argument fails here for the same reason it failed under the MMPA: the record supports the Service's determination that the mitigation measures are effective.

Second, Plaintiffs argue that the Incidental Take Statement ("ITS") included in the Service's BiOp fails to comply with the ESA because it does not provide a numerical limit on the amount of permissible take or provide an adequate surrogate measure for such a limit. Because the relevant ESA provisions differ from those in the MMPA, we briefly review the statutory and regulatory background before addressing this argument.

The ESA contains both substantive and procedural requirements. Substantively, Section 9 of the ESA prohibits "take" of endangered species. 16 U.S.C. § 1538(a)(1)(B). The ESA's definition of "take" is similarly broad, but slightly different from, the MMPA's definition. For example, whereas harassment under the ESA requires a "*likelihood* of injury to [a listed species] by annoying it to such an extent as to *significantly disrupt* normal behavioral patterns," 50 C.F.R. § 17.3 (emphasis added), the MMPA requires only that harassment have the "*potential* to injure . . . or . . . disturb a marine mammal . . . by causing *disruption* of behavioral patterns," 16 U.S.C. § 1362(18)(A)(i)-(ii) (emphasis added).

Procedurally, Section 7 of the ESA requires that federal agencies consult with the Service or NMFS for any agency action that "may affect" a listed species or its critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). Formal consultation results in a BiOp that determines whether the proposed action is likely to jeopardize the continued existence of a listed species or adversely modify its critical habitat. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(h). If the BiOp concludes that the action is not likely to jeopardize the spe-

cies, but is likely to result in some take, the Service will provide an ITS along with the BiOp. 50 C.F.R. § 402.14(i). An ITS specifies the impact (i.e., the "amount or extent") of the incidental take on the listed species, contains terms and conditions designed to minimize the impact, and, in the case of marine mammals, specifies measures that are necessary to comply with Section 101(a)(5) of the MMPA. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i)(1). Take that complies with the terms and conditions of an ITS is not a prohibited take under Section 9. 16 U.S.C. § 1536(o)(2); 50 C.F.R. § 402.14(i)(5). If the amount or extent of take specified in the ITS is exceeded, the Service reinitiates Section 7 consultation to ensure that the "no jeopardy" determination remains valid. 50 C.F.R. §§ 402.14(i)(4), 402.16(a).

1. Whether an ITS Was Required

As a preliminary matter, the Service and Association assert that the agency was not required to issue an ITS in this case. The Service, citing *Arizona Cattle Growers' Association v. U.S. Fish & Wildlife Service*, 273 F.3d 1229, 1243 (9th Cir. 2001), argues that an ITS need not have accompanied the BiOp for the Chukchi Sea incidental take regulations because it was not "reasonably certain" that take would occur until the Service issued LOAs. The Service states that it issued an ITS along with the BiOp in this case "out of an abundance of caution." This argument fails for at least two reasons.

First, *Arizona Cattle Growers* is inapposite. We held in that case that the Service could not attach binding conditions on permittees via an ITS where no listed species were present in the area and thus the agency "ha[d] no rational basis to conclude that a take will occur incident to the otherwise lawful activity." 273 F.3d at 1242-44. Here, threatened polar bears are present in the Chukchi Sea area, and the oil and gas exploration activities are reasonably certain to result in at least some nonlethal harassment. Indeed, that is the very purpose of issuing incidental take regulations under the MMPA.

Second, the *Evans* court considered and rejected a similar argument that NMFS did not have to prepare an ITS along with its BiOp for incidental take regulations until it issued LOAs. 279 F. Supp. 2d at 1182-83. That court noted that the ITS provision in Section 7(b)(4) of the ESA specifically references Section 101(a)(5) of the MMPA, rather than the MMPA implementing regulations referring to LOAs, and thus "clearly contemplates the promulgation of a Final Rule, not letters of authorization," as the trigger for producing an ITS. *Id.* at 1182. We agree with this reasoning.

The Association argues further that an ITS was not required in this case because the ESA Section 9 take prohibitions do not apply here. The Section 9 prohibitions apply expressly to endangered, rather than threatened, species. 16 U.S.C. § 1538(a)(1)(B). For threatened species like the polar bear, Section 4(d) provides that the Service or NMFS shall promulgate regulations that they deem "necessary and advisable to provide for the conservation of such species," including, possibly, applying some or all of the Section 9 prohibitions to the threatened species. Id. § 1533(d); see also id. § 1538(a)(1)(G) (making it unlawful for any person to violate regulations promulgated under Section 4(d) for threatened species). When the Service listed the polar bear as threatened in 2008, it issued a Section 4(d) rule that applied most of the Section 9 prohibitions to the polar bear. 73 Fed. Reg. 28,306, 28,306 (May 15, 2008) (interim final rule); 50 C.F.R. § 17.40(q)(1). However, because the Service concluded that MMPA restrictions are at least as protective as those under the ESA, it exempted from those prohibitions "any activity conducted in a manner that is consistent with the requirements of the Marine Mammal Protection Act." 50 C.F.R. § 17.40(q)(2). Accordingly, the ITS accompanying the BiOp for the Chukchi Sea regulations notes that "the activities covered by this consultation are exempt from any take prohibitions that might otherwise apply under the ESA."

[8] Plaintiffs contend that exemption from Section 9 take liability is irrelevant to the Service's Section 7 obligations to

prepare a BiOp and ITS. We agree. The ESA requires an ITS for "the taking of an endangered species or a threatened species incidental to the agency action," 16 U.S.C. § 1536(b)(4)(B) (emphasis added), not the *prohibited* taking. The polar bear Section 4(d) rule expressly states that "[n]othing in this special rule affects the issuance or contents of the biological opinions for polar bears or the issuance of an incidental take statement, although incidental take resulting from activities that occur outside of the current range of the polar bear is not subject to the taking prohibition of the ESA." 73 Fed. Reg. at 76,252. The Association's argument fails to recognize that exemption from Section 9 take liability "is not the sole purpose of the ITS. If the amount or extent of taking specified in the ITS is exceeded, reinitiation of formal consultation is required. . . . Thus, the ITS serves as a check on the agency's original decision that the incidental take of listed species resulting from the proposed action will not [jeopardize the continued existence of the species]." Evans, 279 F. Supp. 2d at 1182. Accordingly, exemption from Section 9 take prohibitions does not negate the separate requirement that the Service "will provide" an ITS along with its BiOp. 50 C.F.R. § 402.14(i)(1).

2. Numerical or Surrogate Take in the ITS

As discussed above, Section 101(a)(5)(A) of the MMPA does not require that the Service quantify in absolute terms the number of marine mammals that would be taken pursuant to incidental take regulations, so long as the agency reasonably determines through some other means that the specified activity would result in take of only "small numbers" of mammals. Legislative history of the MMPA reveals that Congress recognized that the "small numbers" concept "is not capable of being expressed in absolute numerical limits." H.R. Rep. No. 97-228, *reprinted in* 1981 U.S.C.C.A.N. at 1469. By contrast, the legislative history of the ESA reveals that Congress "clearly declared a preference for expressing take in numerical form" with respect to ITSs under Section 7. Or. Natural

Res. Council v. Allen, 476 F.3d 1031, 1037 (9th Cir. 2007) (citing H.R. Rep. No. 97-567, at 27 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807, 2827). Section 7(b)(4) of the ESA requires that an ITS specify the "impact" of the incidental take on the listed species. 16 U.S.C. § 1536(b)(4)(C)(i). ESA implementing regulations clarify that "impact" in this context means the "amount or extent" of incidental take. 50 C.F.R. § 402.14(i)(1)(i). The House Report accompanying Section 7(b)(4) states, "Where possible, the impact should be specified in terms of a numerical limitation" H.R. Rep. No. 97-567, at 27, reprinted in 1982 U.S.C.C.A.N. at 2827.

"Accordingly, we have recognized that the permissible level of take [in an ITS] ideally should be expressed as a specific number." Allen, 476 F.3d at 1037 (citing Ariz. Cattle Growers, 273 F.3d at 1249); accord Miccosukee Tribe of Indians of Fla. v. United States, 566 F.3d 1257, 1274-75 (11th Cir. 2009). However, "while Congress indicated its preference for a numerical value, it anticipated situations in which [the amount of take] could not be contemplated in terms of a precise number." Ariz. Cattle Growers, 273 F.3d at 1250; see also H.R. Rep. No. 97-567, at 27, reprinted in 1982 U.S.C.C.A.N. at 2827 ("The Committee does not intend that the Secretary will, in every instance, interpret the word 'impact' to be a precise number. . . . [I]t may not be possible for the Secretary to specify a number in every instance."). As a result, we have held that the Service need not specify numerical take in an ITS if it establishes "that no such numerical value could be practically obtained." Ariz. Cattle Growers, 273 F.3d at 1250. In such circumstances, an ITS may "utilize[] a surrogate instead of a numerical cap on take," so long as it "explain[s] why it was impracticable to express a numerical measure of take." Allen, 476 F.3d at 1037. The chosen surrogate "must be able to perform the functions of a numerical limitation" by "set[ting] forth a 'trigger' that, when reached, results in an unacceptable level of incidental take . . . and requir[es] the parties to re-initiate consultation." Id. at 1038 (internal quotation marks omitted). The ITS also "must

articulate a rational connection between the surrogate and the taking of the species." *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 531 (9th Cir. 2010) (citing *Ariz. Cattle Growers*, 273 F.3d at 1250-51).

In Arizona Cattle Growers, we rejected a surrogate as too vague because it did not contain measurable guidelines and thus failed to "provide a clear standard for determining when the authorized level of take has been exceeded." 273 F.3d at 1250-51. In Allen, we struck down an ITS that "offer[ed] no explanation of why the [Service] was unable numerically to quantify the level of take." 476 F.3d at 1038. In that case, the BiOp for timber sales in suitable habitat for the threatened northern spotted owl noted that owl survey data was out of date, and that surveys had been discontinued or reduced. Id. We noted that the Service "never states that it is not possible to update the survey data in order to estimate the number of takings, only that it has not actually done the surveys. This does not establish the numerical measure's impracticality." Id. We also rejected the ITS for using an improper surrogate that authorized the take of all spotted owls associated with the project and thus did not set forth an adequate trigger for reinitiating consultation. Id. at 1038-39. We explained that "[e]ven if the actual number of takings of spotted owls that occurred during the project was considerably higher than anticipated [in the BiOp], the Incidental Take Statement would not permit the [Service] to halt the project and reinitiate consultation." Id. at 1039.

Here, the ITS does not specify a numerical measure of the "amount or extent" of anticipated incidental take. The ITS states:

In the accompanying [BiOp], the Service determined that total take anticipated as a result of the issuance of the Regulations under section 101(a)(5)(A) of the MMPA is not likely to result in jeopardy to the polar bear. No lethal take is anticipated. While the Service cannot anticipate the specific amount or extent of other types of 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, the negligible effects finding and the small numbers determination articulates the anticipated amount of take with respect to effect on the population.

Borrowing from a draft of the Chukchi Sea final rule, the Service explains elsewhere in the BiOp that

The dynamic nature of sea ice habitats and its influence on the seasonal and annual distribution and abundance of polar bears and walruses in the specified geographical region (eastern Chukchi Sea), limits the Service's ability to provide *a priori* numerical estimates of the number of Pacific walruses and polar bears that might potentially be impacted in any given year.

The final rule elaborates on this explanation in its response to comments. *See* 73 Fed. Reg. at 33,243-44.

[9] The ITS is not very illuminating regarding the feasibility of providing a specific numerical estimate of take under the ESA. The Service at oral argument contended that the explanation, while short, adequately summarizes the reasons, described in greater detail in the final rule, why a numerical measure was impracticable. Although it is a close question, we conclude that the ITS, as supplemented by the explanation elsewhere in the BiOp, sufficiently "explain[s] why it was impracticable to express a numerical measure of take." *Allen*, 476 F.3d at 1037. This is not a case, as in *Allen*, where "the BiOp offers no explanation of why the [Service] was unable numerically to quantify the level of take." *Id.* at 1038.

A surrogate measure of take in an ITS "must be able to perform the functions of a numerical limitation" by setting forth "a clear standard for determining when the authorized level of take ha[s] been exceeded." Id. at 1038-39 (an adequate surrogate must contain "measurable guidelines to determine when incidental take would be exceeded" and "not be so general that the applicant or the action agency cannot gauge its level of compliance"). Here, the ITS states that the "negligible effects finding and the small numbers determination [in the 2008 Chukchi Sea rule] articulates the anticipated amount of take with respect to effect on the population." In most circumstances, such a statement in an ITS would not serve as an adequate surrogate because it does not specify a clear standard for determining when the anticipated level of take would be exceeded. See Ctr. for Biological Diversity v. Bureau of Land Mgmt., 422 F. Supp. 2d 1115, 1138-39 (N.D. Cal. 2006) ("To the extent this sentence is meant to act as a surrogate for a numerical estimate of take, it is too vague and confusing to act as any meaningful standard upon which compliance with the ITS can be measured."). However, given the interplay between the ESA and MMPA in this case, we conclude that the ITS, incorporating by reference the 2008 Chukchi Sea rule, satisfies the requirement that it specify "the impact, i.e., the amount or extent," of the incidental take. 50 C.F.R. § 402.14(i)(1)(i).

We base this conclusion on several factors. First, as discussed above, a primary purpose of the ITS and its measure of permissible take is to provide a trigger for reinitiating consultation under Section 7(a)(2) of the ESA. *See Allen*, 476 F.3d at 1040; *Evans*, 279 F. Supp. 2d at 1182 ("[T]he ITS serves as a check on the agency's original decision that the incidental take of listed species resulting from the proposed action will not violate section 7(a)(2) of the ESA."). However, the relevant MMPA standard at issue here is more conservative than the ESA standard. The Service, when promulgating incidental take regulations under Section 101(a)(5) of the MMPA, must determine that the specified activity will have no more than a "negligible impact" on the relevant stock of polar bears, 16 U.S.C. § 1371(a)(5)(A)(i)(I), whereas the standard under Section 7(a)(2) of the ESA is whether the agency action would "jeopardize the continued existence" of the species as a whole, *id.* § 1536(a)(2). As the BiOp explains

[I]f an action meets the MMPA standard of negligible impact . . . , there should be little potential for the action to jeopardize the species. . . . It is reasonable to expect that a proposed action being independently evaluated under the MMPA and the ESA would be determined to have more than a negligible impact before, and in some cases well before, a jeopardy determination would be made.

Thus, so long as the amount and extent of take remains consistent with the Service's "small numbers" and "negligible impact" findings in the MMPA incidental take regulations, there should be no need for reinitiating consultation under the ESA.

Second, Section 101(a)(5)(B) of the MMPA provides that the Service "shall withdraw, or suspend[,]" its incidental take authorization if the agency finds that take from the specified activity "is having, or may have, more than a negligible impact on the species or stock concerned." Id. § 1371(a)(5)(B). The Service highlighted this provision in its response to comments in the final rule. See 73 Fed. Reg. at 33,240. The "may have[] more than a negligible impact" standard would necessarily operate as a trigger to reinitiate consultation under the ESA. See 50 C.F.R. § 402.16(b) ("Reinitiation of formal consultation is required . . . [i]f new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered."). Accordingly, this is not a case, as in Allen, where "[e]ven if the actual number of takings . . . was considerably higher than anticipated [in the BiOp], the Incidental Take Statement would not permit the [Service] to halt the project and reinitiate consultation." 476 F.3d at 1039.

The Service will not always be able to rely on findings under Section 101(a)(5)(A) of the MMPA to specify the "amount or extent" of take permitted under the ESA. Such reliance is permissible only where, as here, the Service first establishes that it is impracticable to quantify a numerical measure of take. If the Service fails to establish that a numerical measure is impracticable, then the ESA requires that the agency provide a numerical limit in the ITS, even though Section 101(a)(5)(A) of the MMPA does not require it in the incidental take regulations themselves. Such reliance is also permissible only where, as with the polar bear here, the listed species at issue is also a marine mammal subject to the incidental take regulations under the MMPA. If the specified activity pursuant to the incidental take regulations could affect other listed species, like threatened or endangered fish, as in Evans, 279 F. Supp. 2d at 1180-81, a "small numbers" and "negligible impact" finding as to marine mammals under the MMPA would be irrelevant to the Service's obligations to protect those other species under the ESA. In such an instance, the Service could not rely on findings in the MMPA incidental take regulations to provide a surrogate for the "amount or extent" of take under the ESA.

Third, Plaintiffs have failed to articulate a feasible, alternative surrogate measure of take. Given the nature of the species, the geographic region, and the proposed activities at issue here, we recognize that it may be impossible for the Service to develop an adequate surrogate based on other potential measures, such as habitat or ecological conditions. Here, the Service is dealing with about 3,500 widely distributed polar bears that travel thousands of miles per year, a dynamically changing geographic area of about 90,000 square miles, proposed oil and gas activities without specific locations, and a type of anticipated take that results in only short-term, minimal changes in behavior. We do not hold that it is generally a plaintiff's burden to propose alternative, surrogate measures of take. But Plaintiffs' inability to propose such measures here — even when specifically questioned about it at oral argument — influences our view of the adequacy of the Service's proffered surrogate in the ITS.

[10] In sum, although it is a close question, we agree with the Service that "[t]he ITS in this case reasonably relies on the negligible impact and small numbers findings of the MMPA incidental take regulation to articulate the anticipated amount of take and the effect on the polar bear population."

C. NEPA

Congress enacted NEPA "to protect the environment by requiring that federal agencies carefully weigh environmental considerations and consider potential alternatives . . . before the government launches any major federal action." Barnes v. U.S. Dep't of Transp., 655 F.3d 1124, 1131 (9th Cir. 2011) (internal quotation marks omitted). NEPA requires that federal agencies prepare an Environmental Impact Statement ("EIS") for any "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). As a preliminary step, an agency may first prepare a less exhaustive EA, which is a "concise public document" that "[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS]." 40 C.F.R. § 1508.9(a). If the agency concludes in an EA that the federal action will not have significant environmental impacts, it may issue a Finding of No Significant Impact ("FONSI") in lieu of preparing an EIS. Id. §§ 1508.9(a)(1), 1508.13.

Plaintiffs here do not challenge the Service's FONSI or its decision to prepare an EA instead of an EIS, as they did in their unsuccessful challenge to the Service's 2006 Beaufort Sea incidental take regulations. *See Kempthorne*, 588 F.3d at 711-12. Instead, Plaintiffs challenge the Service's EA for the 2008 Chukchi Sea regulations on two grounds: first, that it fails to consider a reasonable range of alternatives; and sec-

ond, that it fails to address the potential impacts of a large oil spill.

1. Range of Alternatives

NEPA requires federal agencies to "study, develop, and describe appropriate alternatives to recommended courses of action." 42 U.S.C. § 4332(2)(E). This provision applies whether an agency is preparing an EIS or an EA. Native Ecosystems Council v. U.S. Forest Serv., 428 F.3d 1233, 1245 (9th Cir. 2005); see also Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228-29 (9th Cir. 1988) ("[C]onsideration of alternatives is critical to the goals of NEPA even where a proposed action does not trigger the EIS process."). However, "an agency's obligation to consider alternatives under an EA is a lesser one than under an EIS." Native Ecosystems, 428 F.3d at 1246. "[W]hereas with an EIS, an agency is required to '[r]igorously explore and objectively evaluate all reasonable alternatives,' see 40 C.F.R. § 1502.14(a), with an EA, an agency only is required to include a brief discussion of reasonable alternatives. See 40 C.F.R. § 1508.9(b)." N. Idaho Cmty. Action Network v. U.S. Dep't of Transp., 545 F.3d 1147, 1153 (9th Cir. 2008) (second alteration in original).

The Service's EA in this case analyzes two alternatives: a no-action alternative and the proposed incidental take regulations. The EA describes the projected impacts of the no-action alternative as follows:

If this alternative is implemented, no [incidental take regulations] would be issued. Consequently, any takes resulting from the proposed exploration activities would not be authorized and any incidental takes would be a violation of the MMPA. However, because the [regulations] do not explicitly permit or prohibit oil and gas activities, Industry could continue to conduct exploration activities as planned without the benefit of mitigation measures proposed

by the Service. In that event, the Service would have no formal means of communicating with Industry or have the ability to require monitoring and mitigation of specific activities and any form of "take" would be a violation of the Act.

[11] Plaintiffs argue that the no-action alternative fails to comply with NEPA because it "assumes that industry will act in bad faith and proceed to take marine mammals in blatant violation of the law." That is, Plaintiffs fault the EA for assuming that oil and gas exploration would continue under the no-action alternative. However, the EA plainly states that the MMPA "prohibits Industry from 'taking' marine mammals," and that any incidental take pursuant to the no-action alternative "would be a violation of the MMPA" for which "Industry would be liable." The EA further notes that "because the [regulations] do not explicitly permit or prohibit oil and gas activities. Industry could continue to conduct exploration activities." (Emphasis added.) These are correct statements. As the 2008 final rule explains, the incidental take regulations "do not authorize, or 'permit,' the actual activities associated with oil and gas exploration in the Chukchi Sea"; they simply shield the proposed activities from take liability under the MMPA. 73 Fed. Reg. at 33,213. Other federal and state agencies are responsible for permitting oil and gas activities on waters and lands within their jurisdiction. Id.; see also, e.g., Native Village of Point Hope v. Salazar, 680 F.3d 1123 (9th Cir. 2012) (upholding Bureau of Ocean Energy Management's approval of Shell Offshore Inc.'s plan for exploratory drilling in Beaufort Sea under the Outer Continental Shelf Lands Act). As we explained in upholding the Service's EA for its 2006 Beaufort Sea regulations, "The purpose of the Service's EA in this context was not to evaluate the impact of industry on polar bears and Pacific walrus . . . but rather to evaluate the impact of issuing incidental take regulations as opposed to permitting industrial activities in the absence of such regulation." Kempthorne, 588 F.3d at 706 (alteration and quotation marks omitted). Here, the EA usefully could have acknowledged that MMPA take liability would deter industry from pursuing at least some of the exploration activities under the no-action alternative, but its failure to do so does not make its alternatives analysis arbitrary and capricious.

[12] Plaintiffs argue further that even if the no-action alternative was appropriately described, the EA fails to analyze other reasonable alternatives, such as imposing additional mitigation measures recommended by Service scientists, or excluding key habitat areas from the geographic scope of the regulations. The Service initially considered other action alternatives, but explains in the EA why it concluded that they were not feasible. The Service also explains in the 2008 final rule why the EA did not examine in greater detail some of the alternatives suggested by Plaintiffs. 73 Fed. Reg. at 33,239. We have previously upheld EAs that gave detailed consideration to only two alternatives. N. Idaho Cmty., 545 F.3d at 1154 ("[W]e hold that the Agencies fulfilled their obligations under NEPA's alternatives provision when they considered and discussed only two alternatives in the 2005 EA."); Native Ecosystems, 428 F.3d at 1246 ("To the extent that Native Ecosystems is complaining that having only two final alternatives — no action and a preferred alternative — violates the regulatory scheme, a plain reading of the regulations dooms that argument."). Because an EA need only include a "brief discussion[]" of reasonable alternatives, 40 C.F.R. § 1508.9(b), and an agency's "obligation to consider alternatives under an EA is a lesser one than under an EIS," *Native Ecosystems*, 428 F.3d at 1246, the Service's alternatives analysis here is not arbitrary and capricious.

2. Potential Impacts of an Oil Spill

NEPA requires that we determine whether the agency took a "hard look" at the likely effects of the proposed action. *Native Ecosystems*, 428 F.3d at 1239. Taking a "hard look" includes "considering all foreseeable direct and indirect impacts." *N. Alaska Envtl. Ctr. v. Kempthorne*, 457 F.3d 969, 975 (9th Cir. 2006) (internal quotation marks omitted). An EA also "must fully assess the cumulative impacts of a project." *Barnes*, 655 F.3d at 1141; *Te-Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 608 F.3d 592, 602-03 (9th Cir. 2010).

[13] Plaintiffs argue that the EA "fails to analyze the significant foreseeable impacts of oil spills." The EA discusses the possible severe, even lethal, impacts of oil spills on polar bears, Pacific walruses, and their prey. However, the EA focuses primarily on the risk of "small operational spills" because it considers the likelihood of a large spill to be very low. Plaintiffs point to a comment from the Marine Mammal Commission, citing a Minerals Management Service ("MMS") estimate that the likelihood of a large oil spill in the Chukchi Sea was somewhere between 33 to 51 percent "over the life of the development and production activity." The Service discussed this estimate in its rule listing the polar bear, but explains in the EA that the scope of its analysis was more narrow because the Chukchi Sea incidental take regulations cover only exploration activities and only for a period of five years.

In its 2008 final rule, the agency explains:

These regulations are of a finite duration (i.e., five years) and authorize incidental take associated with specified exploration activities only. The analyses did not assess the potential for spills from full-scale development and production because that was beyond the scope of analysis. . . In the event of a large spill, we would reassess the impacts to the polar bear and walrus populations and reconsider the appropriateness of authorizations for taking through Section 101(a)(5)(A) of the MMPA.

73 Fed. Reg. at 33,246. The final rule cites another MMS estimate that "during exploratory activities, the probability of a large oil spill occurring throughout the duration of these proposed regulations (five years) is very small." *Id.* at 33,232. The EA refers to this same MMS estimate in stating that "the chance of a large . . . oil spill from exploratory activities in the Chukchi Sea is very low." The EA's failure to mention the other MMS estimate, regarding the likelihood of a large spill over the life of development and production activities, is not arbitrary and capricious given the relatively narrow scope of the activity contemplated in the incidental take regulations.

Conclusion

[14] Section 101(a)(5)(A) of the MMPA requires the Service to determine separately that a specified activity will take only "small numbers" of marine mammals, and that the take will have only a "negligible impact" on the species or stock. We hold that the Service permissibly determined that only "relatively small numbers" of polar bears and Pacific walruses would be taken in relation to the size of their larger populations, because the agency separately determined that the anticipated take would have only a "negligible impact" on the mammals' annual rates of recruitment or survival. The "small numbers" determination was consistent with the statute and was not arbitrary and capricious. We also hold that the Service's accompanying BiOp and EA comply with the ESA and NEPA.

AFFIRMED.