

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 224**

[Docket No. 0810141357–81371–01]

RIN 0648–XL30

**Endangered And Threatened Species; Endangered Status for the Cook Inlet Beluga Whale**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** We, NMFS, issue a final determination to list a Distinct Population Segment (DPS) of the beluga whale, *Delphinapterus leucas*, found in Cook Inlet, Alaska, as endangered under the Endangered Species Act of 1973, as amended (ESA). Following completion of a Status Review of this DPS (the Cook Inlet beluga whale) under the ESA, we published a proposed rule to list this DPS as an endangered species on April 20, 2007. We subsequently extended the date for final determination on the proposed action by 6 months, until October 20, 2008, as provided for by the ESA.

After consideration of public comments received on the proposed rule and other available information, we have determined that the Cook Inlet beluga whale is in danger of extinction throughout its range, and should be listed as an endangered species. We will propose to designate critical habitat for the Cook Inlet beluga whale in a future rulemaking.

**DATES:** This final rule is effective December 22, 2008.

**ADDRESSES:** Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection by appointment during normal business hours at the NMFS, Protected Resources Division, Alaska Region, 709 W. 9th Street, Juneau, AK. This final rule, references, and other material relating to this determination can be found on our website at <http://www.fakr.noaa.gov/>.

**FOR FURTHER INFORMATION CONTACT:** Brad Smith, NMFS, 222 West 7th Avenue, Anchorage, Alaska 99517, telephone (907) 271–5006, fax (907) 271–3030; Kaja Brix, NMFS, (907) 586–7235, fax (907) 586–7012; or Marta Nammack, NMFS, (301)713–1401.

**SUPPLEMENTARY INFORMATION:**

**Background**

In this document, we issue final listing regulations for the Cook Inlet beluga whale. NMFS is responsible for determining whether a species, subspecies, or Distinct Population Segment (DPS) for which we bear responsibility is threatened or endangered under the ESA. Section 3(6) of the ESA defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range”. The ESA lists factors that may cause a species to be threatened or endangered (section 4(a)(1)): (a) The present or threatened destruction, modification, or curtailment of its habitat or range; (b) overutilization for commercial, recreational, scientific, or educational purposes; (c) disease or predation; (d) the inadequacy of existing regulatory mechanisms; or (e) other natural or manmade factors affecting its continued existence. Section 4(b)(1)(A) of the ESA requires NMFS to make listing determinations based solely on the best scientific and commercial data available, after conducting a review of the status of the species and after taking into account efforts being made to protect the species.

We initiated a Status Review for the Cook Inlet beluga whale in March 2006 (71 FR 14836). On April 20, 2006, we received a petition to list the Cook Inlet beluga whale as an endangered species. In response to the 2006 petition, we published a 90–day finding that the petition presented substantial scientific or commercial information indicating that the petitioned action may be warranted (71 FR 44614; August 7, 2006). After completion of the Status Review in November 2006, we re-affirmed that the Cook Inlet beluga whale constitutes a DPS under the ESA. We had previously determined that the Cook Inlet beluga whale is a DPS in response to an earlier petition received in 2000 (65 FR 38778; June 22, 2000).

The ESA’s definition of a species includes subspecies and DPSs. We consider a group of organisms to be a DPS for purposes of ESA listing when it is both discrete from other populations and significant to the species to which it belongs (61 FR 4722; February 7, 1996). We found the Cook Inlet beluga whale to be reproductively, genetically, and physically discrete from the four other known beluga populations in Alaska, and significant because it is the only beluga population occurring in the Gulf of Alaska, except as we discuss below with respect to 12 beluga whales in Yakutat Bay. Since we found that the Cook Inlet beluga whale population was discrete and significant,

we determined that it constituted a DPS under the ESA.

A supplemental Status Review was released in April 2008 that included analysis of 2006 and 2007 abundance estimates and further review of the science presented in the 2006 Review. Based on the 2006 Status Review and the best available information, we concluded the Cook Inlet beluga whale is in danger of extinction throughout all or a significant portion of its range and published a proposed rule to list this species under the ESA on April 20, 2007 (72 FR 19854). The ESA provides that, if there is substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the determination, the Secretary of Commerce may extend the 1–year period from the date of the proposed rule by not more than 6 months for the purposes of soliciting additional data. Several parties, including Alaska Department of Fish and Game, questioned the sufficiency or accuracy of the available data used in the rulemaking. We determined that substantial disagreement exists over a certain aspect of the data presented in the proposed rule. In particular, disagreement remained over the population trend of beluga whales in Cook Inlet, and whether the population is demonstrating a positive response to the restrictions on subsistence harvest imposed in 1999. Recognizing this disagreement, and as provided by the ESA, we extended the deadline for a final determination on the petitioned action for a 6–month period, until October 20, 2008 (73 FR 21578; April 22, 2008).

During the 6–month extension, we completed our analysis of 2008 survey data, prepared an abundance estimate for 2008, and prepared a supplemental Status Review, updating the November 2006 and April 2008 reviews. The results of the 2008 abundance survey found the abundance unchanged from 2007, estimating 375 whales. Thus, the trend for the period 1999 to 2008 is a negative 1.45 percent annually. This number is not significantly different from zero, but is significantly less than the expected growth for an un-harvested population (2–4 percent). The October 2008 review also considered new issues raised during the review process, including the possibility that small, gray calves and juveniles are undercounted in aerial surveys. Inclusion and consideration of these data do not alter our conclusion that the Cook Inlet beluga whale is an endangered species.

### Cook Inlet Beluga Whales

The beluga whale (*Delphinapterus leucas*) is a small, toothed whale in the family Monodontidae, a family it shares with only the narwhal. Belugas are also known as “white whales” because of the white coloration of the adults. The beluga whale is a northern hemisphere species, ranging primarily over the Arctic Ocean and some adjoining seas, where they inhabit fjords, estuaries, and shallow water in Arctic and subarctic oceans. A detailed description of the biology of the Cook Inlet beluga whales may be found in the Proposed Rule (72 FR 19854; April 20, 2007).

Five distinct stocks of beluga whales are currently recognized in Alaska: Beaufort Sea, eastern Chukchi Sea, eastern Bering Sea, Bristol Bay, and Cook Inlet. The Cook Inlet population is numerically the smallest of these, and is the only one of the five Alaskan stocks occurring south of the Alaska Peninsula in waters of the Gulf of Alaska. Systematic surveys on beluga whales in Cook Inlet documented a decline in abundance of nearly 50 percent between 1994 and 1998, from an estimate of 653 whales to 347 whales. This decline was mostly attributed to the subsistence harvest (through 1998); however, even with the restrictions on this harvest, the population has continued to decline by 1.45 percent per year from 1999 to 2008. Annual surveys have continued since 1994, and indicate this population is not recovering.

### Summary of Comments Received in Response to the Proposed Rule

We received public comment in response to the proposed rule, and held public hearings on the proposed listing in Anchorage, Homer, and Soldotna, Alaska, and in Silver Spring, Maryland. The original deadline for public comments was June 19, 2007 (60 days from the date of publication of the proposed rule (72 FR 19854; April 20, 2007), but was subsequently extended to August 3, 2007 (72 FR 30534; April 22, 2008). Approximately 180,000 comments were received. The majority of comments supported listing the Cook Inlet beluga whale as endangered under the ESA. We did not propose to designate critical habitat for the Cook Inlet beluga whale in the proposed listing rule, but we requested any comments that might benefit our consideration of critical habitat should we conclude that the Cook Inlet beluga whale warranted listing under the ESA. The few comments received concerning critical habitat are not germane to this action and will not be addressed in this final rule. However, such comments

will be addressed during the subsequent rulemaking on critical habitat for the Cook Inlet beluga whale.

A joint NMFS/U.S. Fish and Wildlife Service policy requires us to solicit independent expert review from at least three qualified specialists (59 FR 34270; July 1, 1994). Further, in December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review establishing minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The OMB Bulletin, implemented under the Information Quality Act (Public Law 106–554), is intended to enhance the quality and credibility of the Federal Government’s scientific information, and applies to influential or highly influential scientific information disseminated on or after June 16, 2005. Pursuant to our 1994 policy and the OMB Bulletin, we solicited the expert opinions of three appropriate and independent specialists regarding pertinent scientific or commercial data and assumptions relating to the taxonomy, genetics, and supportive biological and ecological information for the Cook Inlet beluga whale. We conclude that these expert reviews satisfy the requirements for “adequate peer review”.

All of the independent experts found that the scientific information supported listing these whales as an endangered species, and all found the Cook Inlet population constituted a species, or DPS, as defined by the ESA. The findings of the independent experts, and responses to comments received from the public, are presented below.

### Comments of the Independent Experts

Three independent reviewers were identified who had scientific expertise in marine mammalogy with specific knowledge of beluga whales. We asked these independent experts to review the proposed rule and supporting materials, and to comment on the matter of potential listing. Four specific questions were posed to this panel: (1) Do you find the Cook Inlet population of beluga whales exhibits sufficient discreteness and significance to constitute a Discrete Population Segment as presented in the 1996 Department of Commerce Policy Regarding the Recognition of Distinct Vertebrate Population Segments (61 FR 4722); (2) Do you find the extant survey data and other information presented reasonably support the abundance and trend estimates used in the proposed rule?; (3) Do you believe the Population Viability Analysis in the NMFS’ 2006 Status Review provides a reasonable

biological model of these whales, and are the extinction risk probabilities supported by the PVA?; and (4) Do you believe the proposed rule accurately describes the present range of the Cook Inlet beluga whale?

All of the expert reviewers found the Cook Inlet population met the criteria for a DPS. They noted the discreteness of this population was established by its geographic segregation and genetic profiles. The “significance” DPS factor was supported by the fact that Cook Inlet beluga whales are one of a few sub-Arctic populations, having significantly different ecology from Arctic populations, and that there is little or no likelihood that this area could be recolonized by other Alaska beluga whale populations.

All these reviewers found that the abundance and trend data reported in the 2006 Status Review and proposed rule were reasonable. One expert reviewer commented that the survey data indicate this population is likely stable, with a slight possibility towards a slow decline, and went on to state that the disparity between annual abundance estimates reflects the difficulty in surveying this species, whose distribution is very clumped.

All of the expert reviewers found the 2006 Status Review and its biological models provided a reasonable description of this population. One expert reviewer recommended the Population Viability Analysis (PVA) be re-run using different life-history parameters, specifically to include new information regarding the numbers of annual growth layers found in beluga teeth. This new information would mean belugas lay down a single growth layer each year rather than two, effectively doubling the current age estimates for these animals. A second expert also noted this new information, but felt that population growth rates will show minor, if any, changes. One reviewer asked if the model accounted for the possibility of subsistence hunts resulting in struck-but-lost whales and the possible separation of cow/calf pairs in which the cow may be harvested, leading to the death of the dependent calf. Another felt that mortality by killer whales had been underestimated in the models. None of the expert reviewers specifically commented on the Extinction Risk Analysis.

Finally, all of the expert reviewers agreed that the present range of the Cook Inlet population, as described in the proposed rule, was accurately described. One expert reviewer also noted the feeding ecology of the Cook Inlet beluga whale is presently poorly understood, and somewhat inconsistent

with that of the St. Lawrence beluga whales.

*Response:* We have considered the implications of new information regarding the numbers of annual growth layers found in beluga teeth and find it does not alter the current abundance estimate, growth rate and trends, or extinction risk probabilities. The PVA has been run using revised age data (i.e., assuming whales develop one growth layer annually) and abundance estimates for 2006, 2007, and 2008. That analysis is presented in the October 2008 Status Review. The analysis found little change in the estimated growth rate of the populations, estimating that there is a probability of only 5 percent that the growth rate is above 2 percent per year, and a probability of 62 percent that the population will decline further. The best available data at this time indicate that the Cook Inlet beluga whale DPS is not growing as expected despite limits on subsistence harvests. A doubling of the age structure (i.e., assuming a single growth layer each year rather than two) for this population changes some of the vital rates for these whales (e.g., age at first birth, senescence, and longevity) but not others (calving rates, calving intervals, sex ratios).

Regarding consideration in the model of the possibility for struck and lost whales, the model used in the 2006 Status Review and in the 2008 Supplement uses an estimate of between 0.5 and 2 beluga whales struck and lost for each beluga whale that is landed. All struck and lost beluga whales were considered to have died, and calves in their first year were considered to have died if the mother was killed in the hunt or died of other causes.

We are particularly concerned that mortality due to killer whale predation may be underestimated. The analysis in the April 2008 Status Review included variations of the population model in which killer whale predation was doubled and increased to 5 times the reported level. The extinction risk is quite sensitive to this parameter with the risk of extinction in 50 years between 12 and 30 percent when killer whale predation averages 5 per year.

#### Public Comments

*Comment 1:* Several commenters noted the need for continuing and new research on Cook Inlet beluga whales to improve our understanding of the ecology of these whales and address the threats and impediments to recovery.

*Response:* More research would add to the ecological knowledge of these whales. We have prepared a Conservation Plan which will present

most of what is known of the biology and threats confronting Cook Inlet beluga whales, and will use that Plan as a guide for funding and conducting research directed towards the recovery of the population. The ESA does not provide for further deferral of this listing action until additional studies are conducted. Consistent with the ESA, we previously extended the deadline for promulgation of this final listing rule because of substantial disagreement concerning the sufficiency or accuracy of the available data. Since that time, we analyzed 2008 survey data and prepared an abundance estimate and supplemental status review. Our determination to list the Cook Inlet beluga whale under the ESA, based upon the best available data, is well-supported by existing research and knowledge, as documented in the proposed rule and the additional analysis conducted in 2008.

*Comment 2:* NMFS had not made adequate use of the traditional knowledge and wisdom of Alaska Natives, or NMFS has failed to recognize their contribution.

*Response:* We have engaged the Native community in recent Federal actions concerning Cook Inlet beluga whales. We have entered into annual agreements with Alaska Native Organizations for the cooperative management of these whales. We have worked closely with the Cook Inlet Marine Mammal Council in developing harvest regulations and in coordinating actions which may affect beluga whales. We have funded studies to acquire and record traditional knowledge as part of our decision making process, and have offered to consult on the proposed listing action with affected Native organizations, tribes, and corporations. Additionally, we have attempted to incorporate the traditional knowledge and wisdom of Alaska Natives in our scientific publications, and to correctly cite the Alaska Native sources for such information. We greatly appreciate the contributions of Alaska Natives to the body of knowledge for Cook Inlet beluga whales, and acknowledge their consultation and advice have been essential to us.

*Comment 3:* One commenter stated that Alaska Native hunters have cooperated in dealing with the declining population, but in doing so have deprived themselves of their traditional hunting and way of life.

*Response:* We recognize the contributions of the Cook Inlet Marine Mammal Council and other Alaska Natives in conservation efforts for the Cook Inlet beluga whales. Native hunters voluntarily stood down from

harvesting whales in 1999 to prevent further loss of this population and allow scientific evaluation of the impact of the harvest. The ESA provides an exemption from its prohibitions on the taking of an endangered species for traditional subsistence harvests by Alaska Natives. However, such subsistence harvests may be regulated when the population is designated as depleted under the MMPA as with the Cook Inlet beluga whale. NMFS published a rule to provide for long-term harvest regulations for these whales (73 FR 60976; October 15, 2008). The native hunting community was an integral part of this rulemaking and participated as a party to the administrative hearing process leading to harvest regulation. It is unfortunate but necessary that future subsistence harvests will be impacted by harvest regulations until the population has recovered sufficiently to allow unrestricted hunting by Alaska natives.

*Comment 4:* NMFS needs to recognize the potential negative consequences of global warming on the beluga population as it finalizes the listing rule and makes management goals.

*Response:* The comment is noted, and we are aware of the significant changes within many Arctic ecosystems attributable to climate change. Our Conservation Plan specifically addresses these changes and their potential effects to Cook Inlet beluga whales. Conservation of habitat will be a vital component to any plans for recovery of this population, and we anticipate future research will be directed to address habitat issues, including climate change.

*Comment 5:* The habitat is diminishing and reducing the carrying capacity of the Cook Inlet beluga whales.

*Response:* Portions of upper Cook Inlet that provide important habitat for beluga whales are filling in, and the gradual loss of these areas may in time reduce the numbers of whales that Cook Inlet can support. However, we have no data at this time to indicate that carrying capacity has decreased.

*Comment 6:* Several comments were received concerning the relationship between subsistence harvests and ESA listing for Cook Inlet belugas. Some commenters felt that subsistence harvests were responsible for the population's decline, others stated that because harvest is now controlled and the population has not increased, other factors have played a role in the decline. One commenter held that ESA listing was unnecessary because subsistence harvest is now controlled.

*Response:* We estimate the current abundance of Cook Inlet beluga whales as 375 individuals, and their historic numbers to be approximately 1300. The present risk of extinction is significant. The reasons or paths by which this reduction occurred are important in our understanding of how we might recover the population; however, subsistence harvests are now controlled, and overharvests are unlikely to occur. As other commenters correctly observe, the population has not shown any signs of recovery despite harvest control. This strongly suggests other factors may now be involved in the lack of recovery of the Cook Inlet beluga whales, and that cessation of excessive harvests is not enough to bring about recovery.

*Comment 7:* One group of commenters stated their belief that oil and gas development, wastewater treatment facilities, mining, shipping, transfer facilities, pollution, commercial fishing, sport fishing, and whale watching are not causing problems for Cook Inlet belugas, or can be addressed through existing regulations and management practices.

*Response:* Comment noted. In the proposed rule (72 FR 19854; April 20, 2007), we described our analysis of the factors under section 4(a)(1) of the ESA and their contribution to the endangered status of these whales. In that analysis, many of the topics the commenter identifies are reviewed. The effect, if any, of these activities is also considered in the Conservation Plan for Cook Inlet beluga whales and will be considered in any future Recovery Plan.

*Comment 8:* Several comments were received saying Cook Inlet beluga whales had been harmed or have failed to recover due to various factors, including hunting, overfishing, entanglement by fishing gear, harassment, noise, pollution, vessel traffic, habitat degradation, disease, climate change, predation, or strandings.

*Response:* See response to Comment 7. All of the identified factors may have some impact on this population. These factors and others are addressed in the Conservation Plan and will be addressed in the Recovery Plan that will be developed for the Cook Inlet beluga whale.

*Comment 9:* Specific actions must be taken to protect Cook Inlet belugas. These include appointment of a recovery team and preparation of a recovery plan, research funding, and consultation on activities which may affect beluga whales or their habitat.

*Response:* We anticipate a recovery plan will be developed through the efforts of a recovery team, and that

consultations under section 7(a)(2) of the ESA would occur after the listing becomes effective. We have previously discussed our intentions to continue certain research on Cook Inlet beluga whales, and our efforts to direct and coordinate other research through the Conservation Plan.

*Comment 10:* NMFS should not list the Cook Inlet beluga whale as an endangered species because the sole reason for its decline was subsistence harvests, while the other known causes of mortality (killer whale predation and mass strandings) are not associated with human activity. Listing would therefore have no benefit to belugas.

*Response:* We believe past subsistence harvests occurred at unsustainable levels and that these removals are at a level that could account for declines observed during the 1990s. However, we have not determined hunting to be the sole cause for decline in this population. Predation and stranding events would also have occurred during this period, and may have contributed to the decline. The ESA does not limit listing determinations to situations where the causes of decline stem only from human activity. Rather, the ESA specifically includes "other natural or manmade factors affecting its continued existence" among the reasons for which a species can be considered to be threatened or endangered.

*Comment 11:* A comment urged NMFS to pursue additional funding, research, and cooperative work with the mayors of Anchorage, Matanuska-Susitna, and Kenai Boroughs before making an unwarranted ESA decision.

*Response:* We believe the best currently available scientific and commercial information is sufficient to support this listing determination. We welcome future opportunities to work cooperatively with local municipalities and to continue to pursue research in support of a recovery program for these whales.

*Comment 12:* NMFS should not base its listing determination on the criteria established by the International Union for the Conservation of Nature and Natural Resources (IUCN).

*Response:* While the IUCN has determined the Cook Inlet beluga whale would be classified as endangered or critically endangered under their classification criteria, we do not use IUCN criteria in our ESA determinations. This decision was challenged and upheld in court (*Cook Inlet Beluga Whale v. Daley*, 156 F. Supp.2d 16 (D.D.C. 2001)), with the judge ruling that "the agency's obligations arise under the five statutory

criteria of the ESA, and not the IUCN criteria".

*Comment 13:* A comment questioned how ESA listing would affect consultations under section 7 of the ESA when the population expands and theoretically occupies areas outside of Cook Inlet.

*Response:* It is possible that the range of the Cook Inlet beluga whale may expand as the population recovers, though we expect that such recovery would take many years. Any expansion could expand the areas in which ESA section 7 consultations may be required because consultation under the ESA is required whenever the actions of a Federal agency may affect listed species.

*Comment 14:* Recent studies show the population of Cook Inlet beluga whales is increasing. ESA listing should be delayed until NMFS has conducted further research to be certain the population is not increasing.

*Response:* No reference is provided to support this statement, and we are unaware of such studies. Results of population models using the most recent population data, as presented in the October 2008 Status Review, continue to show the likelihood that this population will continue to decline or go extinct within the next 300 years unless factors determining its growth and survival are altered in its favor. While the most recent abundance estimate (2008) of 375 whales is larger than or unchanged from the previous estimates within the last 4 years of 278, 302, and 375, it is not reasonable to conclude that this represents an increasing trend. We base our decision on consideration of the entire time series from 1994 to 2008, which continues to show that the population is not recovering. Rather, it has been decreasing at a rate of 1.45 percent annually.

*Comment 15:* The criteria for designating a distinct population segment are so broad that almost any geographic population could be considered a DPS. The DPS designation was not intended to allow listing of any local population for which an agency or private group has concerns. One sub-population of beluga whales is not critical to the survival of the species.

*Response:* The criteria used to determine whether a group of animals should be considered a DPS are described in the NMFS/U.S. Fish and Wildlife Service's (USFWS) *Policy Regarding the Recognition of Distinct Vertebrate Population Segments under the Endangered Species Act* (61 FR 4722; February 7, 1996). Courts have found this joint policy to be consistent with Congressional intent behind the

ESA. We refer the commenter to this joint policy, and its preamble, for a discussion of issues concerning whether the policy is too broad or too restrictive. Many such comments were received in response to this policy. We stated in the joint policy that the ESA clearly intended to authorize listing of some entities that are not accorded the taxonomic rank of species, and that NMFS and USFWS are obligated to interpret this authority in a clear and reasonable manner. We believe we have done so, and that the Cook Inlet population of beluga whales is properly recognized as a DPS.

Congress has cautioned against overuse of the DPS classification. The requirement that a subpopulation be significant in order to be a DPS is intended to carry out the expressed congressional intent that this authority be exercised sparingly. Both NMFS and the scientific experts asked to review the proposed rule found the Cook Inlet population is discrete and significant, and meets the criteria established in the joint policy. While one subpopulation may not be critical to the survival of the species, it is not necessary for a subpopulation to be critical to the survival of the species in order to be listed under the ESA. If the subpopulation is found to be discrete and significant (i.e., to be a DPS), and in danger of extinction, it may be listed as an endangered species under the ESA. Finally, DPS status for Cook Inlet beluga whales has been previously established; this final rule reaffirms that finding. See also the discussion of DPS status in the Background section of this preamble.

*Comment 16:* NMFS' earlier models (produced when Cook Inlet beluga whales were first designated as depleted in 2000 and subsequently considered for listing) predicting recovery times for these whales were too optimistic. A population with a slow reproductive rate, such as belugas, will require many years to recover. Therefore, they do not warrant listing as endangered under the ESA.

*Response:* We acknowledge that, under the best of circumstances, beluga whale populations can sustain growth rates of at most 2 to 6 percent per year. However, results of population models using the most recent population data, presented in the October 2008 Status Review, indicate a probability of 80 percent that this population is declining, and a probability of extinction of 26 percent in 100 years for the model considered most representative of this population. We conclude this level of risk to the Cook Inlet beluga whales contributes to the

determination to list this population as endangered under the ESA.

*Comment 17:* The 2007 proposed rule reflects omissions, errors, and unsubstantiated interpretations. Statements made regarding killer whale predation and disease cannot be substantiated by the best available data, and NMFS' conclusions about whether predation or disease are contributing to their decline are contradictory. NMFS' determination is based entirely on unsupported population modeling predictions of a continued decline and unsubstantiated speculation of possible increases in threats. Therefore, ESA listing is not warranted.

*Response:* Our determination to list the Cook Inlet beluga whale as endangered under the ESA is based, in part, on the results of population modeling which indicate a high probability of extinction within the next 100 years. Statements regarding killer whale predation are substantiated; predation events and annual predation rates are presented in a peer-reviewed scientific publication and reviewed in the 2006 and 2008 Status Reviews. Statements regarding the potential impact of disease are also substantiated; an extensive review of potential threats from disease is presented in the 2006 Status Review and 2008 supplement. The models used in the 2006 Status Review and Extinction Risk Assessment are supported by the 2006 and 2008 Status Reviews, which include population data through 2008. The model results are not based on any assumption or speculation of increased threats. In all variations of the model, all threats, with the exception of hunting mortalities prior to 1999, are considered to be constant throughout the time frame of the model analysis (1979–2307).

*Comment 18:* NMFS must designate critical habitat for the Cook Inlet beluga whale population at the same time that it is listed under the ESA. Another commenter stated that NMFS should defer designation of critical habitat until solid information is in hand, and not until an arbitrary deadline is set in regulation.

*Response:* The commenter is correct that the ESA states that a final regulation designating critical habitat shall be published concurrently with the final regulation implementing the determination that a species is endangered. However, the ESA allows for situations in which the Secretary may extend the period for 1 year if the scientific information is insufficient for determination of critical habitat. At the end of that additional year, the Secretary must publish a final

regulation, based on the best available data, designating critical habitat to the maximum extent prudent. Because the scientific information available is insufficient for the determination of critical habitat, we defer designation of critical habitat in order to gather and assess additional information.

Existing data and information are lacking in several areas which are necessary to support designation of critical habitat. These include identification and descriptions of the physical and biological features essential to the conservation of these whales, and economic data which would allow consideration of the costs of designation. Information is presented in the Conservation Plan regarding Cook Inlet beluga habitat and relative value of different habitat types. That Plan does not identify the essential features of the habitat or provide any economic analysis of proposed critical habitat, as required in any such designation. However, we anticipate building on the information in the Conservation Plan and conducting an impacts analysis in developing a comprehensive assessment and recommendation for designating critical habitat. A final regulation to designate critical habitat must be issued within 1 year of the publication date of this listing action.

*Comment 19:* Beluga whales have been sighted in the Gulf of Alaska, Sitka, Kodiak, and Prince William Sound, yet these sightings are discounted in the proposed rulemaking.

*Response:* The commenter is correct that beluga sightings in the Gulf of Alaska have occurred outside of Cook Inlet; however, they are uncommon. A review of cetacean surveys conducted in the Gulf of Alaska from 1936 to 2000 revealed only 31 sightings of belugas among 23,000 whale sightings, indicating very few belugas occur in the Gulf of Alaska outside of Cook Inlet. Many of these reports are of single individuals or small groups, and almost all are episodic occurrences which do not suggest the whales regularly occupy such areas. One sighting from 1983 found approximately 200 beluga whales in the western portion of Prince William Sound. Despite numerous surveys in these waters, beluga whales have not been subsequently reported here. Individual beluga whales are occasionally reported along Kodiak Island or in Resurrection Bay. Both of these areas are proximate to the entrance of Cook Inlet. A small group of beluga whales observed near Yakutat has been reported many times and appears to be resident to that area. We considered whether these sightings were cause to expand the described range of

the Cook Inlet DPS, or whether these sightings should be considered extralimital, meaning that the animals sighted were beyond their normal range. Any determination as to whether these whales may be from the Cook Inlet DPS requires either genetic information or data on the movements and distribution of these whales over time, such as satellite tag data. Six genetic samples from the Yakutat belugas have been obtained and analyzed, representing five individual whales (O’Corry-Crowe *et al.*, 2006). Results from these samples indicate they all share a genetic marker that has also been found in other areas of Alaska, including Cook Inlet. These results also indicate that the sampled whales are unlikely to be a random sample of the Cook Inlet beluga whale population. This, taken with sighting data and behavioral observations, suggests that a small beluga whale group resides in the Yakutat Bay region year round. The Yakutat beluga whales have a unique ecology and a restricted home range, and management decisions for this group cannot be made using information from other stocks (O’Corry-Crowe *et al.*, 2006). We believe the best scientific information continues to support the classification of the Cook Inlet beluga whale as a DPS. The DPS excludes beluga whales found at Yakutat, as described in our proposed rule. No genetic or distributional data exist for the other Gulf of Alaska beluga sightings. We have not discounted these occurrences in this rulemaking process, but have no reason to conclude they are of the Cook Inlet DPS, nor that they represent persistent occurrences that justify extending the described range of the Cook Inlet belugas. It is possible for individual or groups of belugas to leave Cook Inlet, although data suggest this is rare. Such occurrences are considered extralimital.

*Comment 20:* The 1979 estimate of Cook Inlet beluga whale abundance was made with unspecified confidence. That survey’s methodology was completely different from NMFS’ current protocols. It should not be relied upon for determination of carrying capacity and is misleading in depicting trends.

*Response:* The commenter is correct in noting that the 1979 abundance estimate is based on a survey that used a different method from NMFS’ current abundance surveys. However, the 1979 estimate was based on a valid survey protocol that is documented and repeatable, and similar to protocols used elsewhere on beluga whale populations. We have concluded that the estimate is valid and represents the maximum observed size of this population and consequently the best available estimate

for carrying capacity. The 1979 estimate should not be used for estimating trends. We have based our analysis of trends on data collected between 1994 and 2008 because of the consistency in survey protocols used during the period 1994 to 2008.

*Comment 21:* Averaging in counts that show a precipitous decline before excessive hunting was restricted in 1999 is inappropriate. The important numbers are those since 1999, which indicate a stable trend.

*Response:* The April 2008 Status Review included a variation of the baseline model that considered only the abundance time series from 1999 to 2007. That variation showed the population has not been stable since 1999, and estimated a probability of 82 percent that the population continued to decline and a 2 percent probability that the population will go extinct within 100 years. These numbers were higher than the same results for the model that included the years 1994–2008.

*Comment 22:* NMFS should consider other methodologies, including those of recent studies by LGL, to determine whether they provide a more accurate indication of the immature component of the Cook Inlet beluga whale population. Aerial surveys are likely to undercount immature whales.

*Response:* We met with representatives of LGL in October 2007 to review photo identification methods, including those for estimating the immature component of the Cook Inlet beluga whale population as indicated by the fraction of gray animals. While the technique presented was considered promising for identifying individuals, both NMFS and LGL agreed that it was not sufficiently developed to allow estimates of the ratios of gray to white animals in the population. In the October 2008 Status Review we included variations in the extinction risk analysis model that assumed over half of the beluga whales younger than the age of maturity were missed in the aerial surveys. All of the versions of the model accounted for the selective depletion of the adult component of the population by hunting, so the potential effect of undercounting juveniles that results in delayed growth in the population was adequately represented. The model with missed gray animals estimated a probability of 64 percent that the population would decline. This compares to a probability of decline of 68 percent estimated by the model that assumed all gray whales are counted. While this 4 percent difference indicates that, if gray whales are undercounted, the probability of decline may be overestimated, the difference between

the two results is not sufficient to warrant further analysis. Also, we employ a technique to adjust counts to estimate the individuals and groups that may be missed by video. Consequently, if some gray whales remain unaccounted for, it is unlikely that they represent more than a few percent.

*Comment 23:* Aerial surveys show an increase in Cook Inlet beluga whales from 278 to 302 between 2005 and 2006, an increase of nine percent. The raw counts from 2007 indicate a further increase.

*Response:* While the abundance estimate of 375 in 2007 was larger than the two previous estimates (2005: 278, 2006: 302), it is not reasonable to conclude this represents an increasing trend. The degree of variability in the abundance estimates is such that there is a high likelihood that increases in the point estimate will be seen in 2 or 3 sequential years (e.g. 1998–2000, 2002–2004). In the case of the 2005 estimate there is a 90-percent probability that the 3 subsequent years will all be larger and an 88 percent probability that a line fit to those data will show an increase greater than 2.0 percent per year. We base our decision on consideration of the entire time series from 1994 to 2008, which indicates a high probability of decline.

*Comment 24:* The quality of NMFS’ population censuses is questionable, leading to insufficient knowledge to support a listing determination. NMFS’ finding that this population has shown an average rate of decline of 4.1 percent from 1999 is not true within 95 percent confidence intervals and should not be used to show population trends. This lack of certainty makes any determination of endangered status equally speculative.

*Response:* The quality of these censuses is high. The abundance estimates that we calculated for each year resulted from aerial surveys conducted in June between 1994 and 2008 (except July in 1995) and used essentially the same methods through the entire series (reviewed in the April 2008 Status Review). During a 2-week period in early June of each year, three to seven surveys of the upper Inlet and one survey of the lower Inlet are conducted. During each survey, we survey the entire coastline to approximately 1 kilometer offshore and all river mouths. Transects are also flown across the inlet. When a group of whales is encountered, it is circled in a “racetrack” pattern 4 to 16 times to allow multiple counts by researchers and the collection of video data. Later, video sequences are reviewed frame by frame and all individuals counted.

Video data are the primary source of group size estimates. Video equipment and technology have improved over the course of these surveys, and the numbers of small or gray-colored whales missed by video may have declined through the time series. We tested this in the model analysis presented in the April 2008 Status Review.

Having a consistent methodology is important to determining trends. While the most recent data no longer indicate a decline of 4.1 percent per year since 1999, this decline is now estimated at 1.45 percent per year (1999–2008). Population models now estimate the probability of further decline within this population at 80 percent, and only a 5-percent probability for the growth rate to be 2 percent or more.

It is not necessary to have a declining growth rate significantly less than zero at the 95 percent confidence level to make a determination of endangered status. The ESA requires listing when a species “is in danger of extinction.” A trend of a 1.45 percent decline per year (significantly less than the growth rate of 2 percent per year necessary for recovery) establishes that risk.

*Comment 25:* NMFS’ methodologies for converting raw aerial counts in Cook Inlet are derived from Bristol Bay surveys, where there is significantly higher water clarity. NMFS methodologies need to be revised.

*Response:* Methodologies for converting raw counts in Cook Inlet are not derived from methods used in Bristol Bay. The methods we used for the 1994–2008 abundance estimates have been developed specifically for Cook Inlet and are calibrated to Cook Inlet (see above response). A parameter derived from Bristol Bay is used for Cook Inlet when the surveys from the 1970s are considered because the type of survey conducted then was very similar to those conducted in Bristol Bay.

*Comment 26:* NMFS’ population modeling used insufficient time during the recovery period (1999+) to assess the true trajectory of the population’s risk of extinction. Also, the risk of extinction within 50 years was zero for all reasonable models, indicating high uncertainty in the trajectory. The model referenced in the proposed rule indicating a 26 percent chance of extinction within 100 years is not defensible.

*Response:* The model results presented in the October 2008 Status Review include the abundance estimates from 1994 to 2008. This time frame allows for 9 years after 1999 (end of unrestricted harvest) for the population to recover. This is a

sufficient time span for the model, which determined an 80 percent probability that the population will decline, and less than a 5 percent probability for recovery at a rate of 2 percent per year. All versions of the model accounted for the impact of hunting on the adult population and other delays to recovery resulting from the 10-year time-to-maturity in this population. The version of the model that we found to be most representative of the population found a 26-percent probability of extinction within 100 years. This model included 1 killer whale mortality per year (which is supported by a peer-reviewed paper) and a “catastrophic loss” estimate of 5 percent chance for a 20-percent mortality event in any year. Expert reviewers agreed that this was a reasonable representation of the possibility for unusual mortality events.

*Comment 27:* Why have a harvest management plan and implementing regulations not been published for Cook Inlet beluga whales?

*Response:* We have completed an Environmental Impact Statement for the long-term management of subsistence harvest of the Cook Inlet beluga whale, and final harvest regulations were published on October 15, 2008 (73 FR 60976). Currently, all harvests of Cook Inlet beluga whales must be authorized under agreement between an Alaska Native Organization and NMFS. Recent harvests have been very limited (only 5 whales have been struck since 1999), and it is doubtful harvests will resume without a significant increase in the growth rate within this population.

*Comment 28:* The draft Conservation Plan for Cook Inlet beluga whales was released in 2005. The ESA listing should not occur until that plan has been completed and implemented.

*Response:* A Conservation Plan is an important component to the recovery of the Cook Inlet beluga whales. The final Conservation Plan is available (see **ADDRESSES**).

Section 4 of the ESA requires consideration of conservation efforts to protect a species in making a determination for listing. NMFS and the USFWS published joint guidance on this issue: “Policy for Evaluation of Conservation Efforts When Making Listing Decisions” (68 FR 15100; March 28, 2003). This guidance provides specific factors to be considered in evaluating conservation efforts that have not yet been implemented or have not demonstrated effectiveness. The basic criteria are whether there is: (1) certainty the conservation efforts will be implemented, and (2) certainty that these efforts will be effective. While the

Conservation Plan presents recommendations that address various recovery needs, many of the actions are presently unfunded or have uncertain effectiveness. As a result, the existence of the Conservation Plan is not sufficient to obviate the need for ESA listing.

*Comment 29:* A commenter recommended not listing Cook Inlet belugas under the ESA because the MMPA provides adequate protection and gives NMFS the necessary authority to protect these whales.

*Response:* There are similarities between the ESA and MMPA. Both acts prohibit taking and provide exemptions for Alaska Native subsistence hunts and permits for scientific research or incidental taking. Both acts address habitat issues, and require preparation of plans to foster recovery (a Recovery Plan under the ESA; a Conservation Plan under the MMPA). The MMPA contains particular provisions for marine mammals that are found to be depleted, or below their optimum sustainable population level. An endangered species of marine mammal is automatically recognized as depleted under the MMPA. Despite these similarities, the ESA provides measures not found in the MMPA that are important in the recovery process. The consultation requirements of the ESA are unique in ensuring a Federal agency’s actions are not likely to jeopardize the continued existence of a listed species, nor adversely modify its critical habitat. The ESA directs all Federal agencies to review their programs and use such programs in furtherance of the purposes of the ESA by carrying out programs for the conservation of endangered and threatened species. The ESA also requires identification and designation of a species’ critical habitat, so as to provide for its recovery. Moreover, declining to list a species under ESA because it is designated as depleted under the MMPA would not be consistent with the ESA, which requires us to list a species based on specified factors and after considering conservation efforts being made to protect the species. Therefore, the authorities of the MMPA do not remove or reduce the requirements to list a species under the ESA. The two acts work together and are not mutually exclusive.

*Comment 30:* The Cook Inlet population of beluga whales is showing signs of recovery, and 40 percent of the population consists of sub-adults whose contribution to the recovery would not be expected for 5 to 7 years.

*Response:* No scientific evidence exists that 40 percent of this population is sub-adult. Photographic analysis has documented the numbers of whales of various color phases and calves (which can be distinguished by size and color). However, color is not a reliable indicator of reproductive age. Many adults are white, but not all gray-colored beluga whales are sub-adults. One gray-colored Cook Inlet beluga whale was found to have teeth with 22 growth layers, clearly not a sub-adult. The commenter's theory assumes that the age of this population was reduced through selective removals of adults by subsistence harvests that targeted white whales. This removal would then have created a large adolescent component that would require time to reach reproductive age and begin to repopulate their numbers. There are several flaws in this theory. First, it is uncertain only white whales were taken in subsistence harvests; we have no data to substantiate this assumption. Second, there is evidence that gray beluga whales are of reproductive age. In fact we have sampled gray beluga whales that have shown evidence of prior pregnancies, or to have been lactating. Third, even if the age structure was significantly reduced through selective harvests ending in 1998, the recruitment into the adult population would have been expected to occur continuously, beginning the following year and continuing to the present. This would have resulted in a gradual increase in abundance figures and, by now, the "signal" from such selective removals would have grown through the population. The population model used to estimate the risk of extinction accounted for the reduction in the adult population during unrestricted harvest and the lag time of 9 or more years between birth and age of first reproduction.

*Comment 31:* Designating Cook Inlet belugas as a Distinct Population Segment is inconsistent with the standards set by a recent decision in the Ninth Circuit Court of Appeals and 2007 guidance from the Department of the Interior.

*Response:* In *Northwest Ecosystem Alliance v. USFWS*, 475 F.3d 1136 (9th Cir. 2007), the Ninth Circuit upheld the USFWS' determination that the Washington population of western gray squirrels did not constitute a DPS. First, the court of appeals held that the USFWS' and NMFS' joint policy defining what constitutes a "distinct population segment" under the ESA (61 FR 4722; February 7, 1996), is a reasonable interpretation (475 F.3d at 1140 45). Second, the court upheld the

USFWS' application of that definition to the Washington population of western gray squirrels (475 F.3d at 1145 50). Specifically, the court ruled the USFWS did not act arbitrarily or capriciously in determining that, at that time, the best scientific and commercial data available did not indicate that the Washington population segment was "significant" (475 F.3d).

In 2000, we determined that the Cook Inlet population of beluga whales is a DPS. We made this determination pursuant to the very definition that the Ninth Circuit upheld in *Northwest Ecosystem Alliance v. USFWS*. The 2000 determination is thus fully consistent with the Ninth Circuit's decision. The Office of the Solicitor, Department of the Interior's March 16, 2007, Memorandum interprets a clause within the ESA's definition of endangered species; namely, what it means for a species to be "in danger of extinction throughout all or a significant portion of its range." The Solicitor's Memorandum does not purport to address or redefine what constitutes a DPS. Therefore, there is nothing in that opinion that would lead NMFS to revisit its 2000 determination that the Cook Inlet population of belugas whales is a DPS.

#### **Determination of Species Under the ESA**

The ESA requires the Secretary of Commerce to determine whether species are endangered or threatened. The authority to list a "species" under the ESA is not restricted to species as recognized in formal taxonomic terms, but extends to subspecies and, for vertebrate taxa, to DPSs. NMFS and the USFWS issued a joint policy to clarify their interpretation of the phrase "distinct population segment" for the purposes of listing, delisting, and reclassifying species under the ESA (61 FR 4722; February 7, 1996). The policy describes two elements to be considered in deciding whether a population segment can be identified as a DPS under the ESA: (1) discreteness of the population segment in relation to the remainder of the species to which it belongs; and (2) the significance of the population segment in relation to the remainder of the species to which it belongs.

Under the first element, we found that the Cook Inlet beluga whale population is discrete because it is markedly separated from other populations of the same species (65 FR 38778; June 22, 2000). Of the five stocks of beluga whales in Alaska, the Cook Inlet population was considered to be the most isolated, based on the degree of

genetic differentiation and geographic distance between the Cook Inlet population and the four other beluga stocks (O'Corry-Crowe *et al.*, 1997; 2002). This suggested that the Alaska Peninsula is an effective physical barrier to genetic exchange. The lack of beluga observations along the southern side of the Alaska Peninsula (Laidre *et al.*, 2000) also supported this conclusion. Murray and Fay (1979) stated that the Cook Inlet beluga population has been isolated for several thousand years, an idea that has since been corroborated by genetic data (O'Corry-Crowe *et al.*, 1997).

Under the second element, two factors we considered were: (1) persistence in an ecological setting that is unique; and (2) whether the loss of the discrete population segment would result in a significant gap in the range of the species. Cook Inlet is a unique biological setting because it supports the southernmost of the five extant beluga populations in Alaska, and is the only water south of the Alaska Peninsula, or within the Gulf of Alaska, that supports a viable population of beluga whales. The ecological setting of Cook Inlet is also unique in that it is characterized as an incised glacial fjord, unlike other beluga habitats to the north. Cook Inlet experiences large tidal exchanges and is a true estuary, with salinities varying from freshwater at its northern extreme to marine near its entrance to the Gulf of Alaska. No similar beluga habitat exists in Alaska or elsewhere in the United States. In the 2000 Status Review, the Cook Inlet beluga whale population segment was considered to be the only beluga population that inhabits the Gulf of Alaska (see discussion of whales in the Yakutat group below), and genetic data showed no mixing with other beluga population segments. Therefore, we determined that the loss of the Cook Inlet beluga population segment may result in the complete loss of the species in the Gulf of Alaska, resulting in a significant gap in the range with little likelihood of immigration from other beluga population segments into Cook Inlet.

Because we found that the Cook Inlet beluga whale population segment was discrete and significant, we determined that it constituted a DPS under the ESA (65 FR 38778; June 22, 2000). Since that time, new research has become available regarding the beluga whales that occur in Yakutat Bay, Alaska, as discussed in our proposed rule to list the Cook Inlet beluga whale as endangered (72 FR 19854; April 20, 2007). These Yakutat Bay whales were included in the Cook Inlet beluga whale DPS identified in 2000 (65 FR 38778; June 22, 2000). The



Yakutat group consists of 12 belugas that are regularly observed in Yakutat Bay and that existed there as early as the 1930s (O’Corry-Crowe *et al.*, 2006). Since the 2000 Status Review, we have obtained biopsy samples from these whales that provide genetic information on their relationship to other Alaska beluga whales. That evidence shows that members of the Yakutat group may be more closely related to each other than whales sampled in other areas, and are not likely to be random whales traveling from the Cook Inlet population (O’Corry-Crowe *et al.*, 2006).

Pursuant to the DPS Policy, geographic separation can also provide an indicator that population segments are discrete from each other. There is a large geographic separation (approximately 621 mi (1000 km)) between the Yakutat beluga group and the Cook Inlet beluga population segment, and no information exists that shows any association between these whales. The genetic, sighting, and behavioral data suggest that a small group of beluga whales may be resident to the Yakutat area year round, and that these whales have a unique ecology and a restricted home range.

We consider the viability of an isolated group of 12 belugas to be low. Genetic results and the fact that the 12 belugas in the Yakutat group are regularly observed in Yakutat Bay and not in Cook Inlet (O’Corry-Crowe, 2006) lead us to conclude that the Cook Inlet beluga whales are discrete from beluga whales near Yakutat. The conclusion reached in 2000 that the Cook Inlet population segment is significant to the beluga whale species remains valid for the same reasons mentioned in 2000, and is further supported by the information stated above regarding the low viability of the Yakutat group and the resultant potential for loss of beluga whales from Cook Inlet and the Gulf of Alaska. Most recently, a panel of independent experts found the Cook Inlet population met the criteria for a DPS. They noted the discreteness of this population was established by its geographic segregation and genetic profiles. Therefore, given the best scientific information available, we conclude the Cook Inlet beluga whales comprise a DPS which is confined to waters of Cook Inlet and does not include beluga whales found in Yakutat or other Gulf of Alaska waters beyond Cook Inlet. Through this rulemaking, we modify the present description of the Cook Inlet beluga whale DPS, which is considered a species under the ESA, by removing those beluga whales occurring near Yakutat or outside Cook Inlet waters.

#### **Extinction Risk Assessment and Summary of Section 4(a)(1) Factors Affecting the DPS**

The ESA defines endangered species as a species “in danger of extinction throughout all or a significant portion of its range. In order to assess the status of the Cook Inlet beluga DPS and to support any determination that it may be threatened or endangered, we prepared a Status Review of these whales in November 2006. The 2006 Review represented the best available scientific information, affirmed the Cook Inlet population to be a DPS, and found the Cook Inlet beluga whale DPS to be in danger of extinction throughout all of its range. Subsequently, a panel of independent experts completed a review of the science presented in the 2006 Review. That review, published in April 2008, provided an update of the best available science. After completion of the 2008 aerial abundance survey, a supplemental Status Review was completed in October 2008. The 2006 and 2008 Reviews include Population Viability Analyses (PVA), trend projections, and extinction risk analyses. The PVA in the 2008 Review included new data from 2008 and addressed issues and comments raised during the review process; in particular, the possibility that small, gray calves and juveniles are undercounted during aerial surveys. The 2006 and 2008 Status Reviews both found a significant probability of extinction. While many iterations of models were considered in these Reviews, using varying inputs for such variables as predation and survival, the model considered to be the most realistic and representative resulted in a 26 per cent probability of extinction within 100 years, and 70 per cent probability of extinction within 300 years.

Section 4(a)(1) of the ESA and the listing regulations (50 CFR part 424) set forth procedures for listing species. We must determine whether a species is endangered or threatened because of any one or a combination of the five factors listed under Section 4(a)(1). In the proposed rule, we specifically recognized these factors as they concern the Cook Inlet beluga whale DPS, and found some of these factors to be present with regard to the proposed listing.

#### *The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range*

Concern is warranted about the continued development within and along upper Cook Inlet and the cumulative effects on important beluga

whale habitat. Ongoing activities that may impact this habitat include: (1) continued oil and gas exploration, development, and production; and (2) industrial activities that discharge or accidentally spill pollutants (e.g., petroleum, seafood processing waste, ship ballast discharge, effluent from municipal wastewater treatment systems, and runoff from urban, mining, and agricultural areas). Destruction and modification of habitat may result in “effective mortalities” by reducing carrying capacity or fitness of individual whales, with the same consequence to the population survival as direct mortalities. Therefore, threatened destruction and modification of Cook Inlet beluga whale DPS habitat contributes to its endangered status.

#### *Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

A brief commercial whaling operation existed along the west side of upper Cook Inlet during the 1920s, where 151 belugas were harvested in 5 years (Mahoney and Sheldon, 2000). There was also a sport (recreational) harvest for beluga whales in Cook Inlet prior to enactment of the Marine Mammal Protection Act (MMPA) in 1972. It is possible that some residual effects for this harvest may remain and may be a factor in the present status of this stock.

Alaska Natives have legally harvested Cook Inlet beluga whales prior to and after passage of the MMPA in 1972. The effect of past harvest practices on the Cook Inlet beluga whale is significant. While subsistence harvest occurred at unknown levels for decades, the observed decline from 1994 through 1998 and the reported harvest (including estimates of whales which were struck but lost, and assumed to have perished) indicated these harvest levels were unsustainable. Annual subsistence take by Alaska Natives during 1995–1998 averaged 77 whales (Angliss and Lodge, 2002). The harvest was as high as 20 percent of the population in 1996. Subsistence removals reported during the 1990s are sufficient to account for the declines observed in this population and must be considered as a factor in the proposed classification of the Cook Inlet beluga whale DPS as endangered.

#### *Disease or Predation*

Killer whales are thought to take at least one Cook Inlet beluga per year (Shelden *et al.*, 2003). The loss of more than one beluga whale annually could impede recovery, particularly if total mortality due to predation were close to the recruitment level in the DPS.

### *The Inadequacy of Existing Regulatory Mechanisms*

Cook Inlet beluga whales are hunted by Alaskan Natives for subsistence needs. The absence of legal authority to control subsistence harvest prior to 1999 is considered a contributing factor to the Cook Inlet beluga whale DPS's decline. NMFS promulgated regulations on the long-term subsistence harvest of Cook Inlet beluga whales on October 15, 2008 (73 FR 60976). These regulations constitute an effective conservation plan regarding Alaska Native subsistence harvest, but they are not comprehensive in addressing the many other issues now confronting Cook Inlet beluga whales. At present, regulations cover the short-term subsistence harvest.

### *Other Natural or Manmade Factors Affecting its Continued Existence*

Cook Inlet beluga whales are known to strand along mudflats in upper Cook Inlet, both individually and in number. The cause for this is uncertain, but may have to do with the extreme tidal fluctuations, predator avoidance, or pursuit of prey, among other possible causes. We have recorded stranding events of more than 200 Cook Inlet beluga whales. Mortality during stranding is not uncommon. We consider stranding to be a major factor establishing this DPS as endangered.

### **Efforts Being Made to Protect the Species**

When considering the listing of a species, section 4(b)(1)(A) of the ESA requires consideration of efforts by any State, foreign nation, or political subdivision of a State or foreign nation to protect such species. Such efforts would include measures by Native American tribes and organizations and local governments, and may also include efforts by private organizations. Also, Federal, tribal, state, and foreign recovery actions developed pursuant to 16 U.S.C. 1533(f) constitute conservation measures. On March 28, 2003, NMFS and USFWS published the final Policy for Evaluating Conservation Efforts (PECE)(68 FR 15100). The PECE provides guidance on evaluating current protective efforts identified in conservation agreements, conservation plans, management plans, or similar documents (developed by Federal agencies, state and local governments, tribal governments, businesses, organizations, and individuals) that have not yet been implemented or have been implemented but have not yet demonstrated effectiveness. The PECE establishes two basic criteria for evaluating current conservation efforts:

(1) the certainty that the conservation efforts will be implemented, and (2) the certainty that the efforts will be effective. The PECE provides specific factors under these two basic criteria that direct the analysis of adequacy and efficacy of existing conservation efforts. Here we assess existing efforts being made to protect Cook Inlet beluga whales, then determine if those measures ameliorate risks to this DPS to a degree where listing is unnecessary.

Cook Inlet beluga whales benefit from protections afforded by the MMPA. The Cook Inlet beluga whale was designated as a depleted stock under the MMPA in 2000, and a draft Conservation Plan has been published (70 FR 12853; March 16, 2005). A final Conservation Plan is available (see **ADDRESSES**). The Conservation Plan is comprehensive and provides recommendations to foster recovery. While some recommendations are funded, many recommendations are unfunded. Therefore, it is uncertain whether these beluga conservation measures will be implemented.

Other provisions exist for the management of subsistence harvests of Cook Inlet beluga whales by Alaskan Natives. Federal law (Public Law 106–553) prohibits the taking of Cook Inlet beluga whales except through a cooperative agreement between NMFS and affected Alaska Native organizations. Presently, co-management agreements are signed annually with the Cook Inlet Marine Mammal Council to establish strike (harvest) limits and set forth requirements intended to minimize waste and prevent unintentional harassment. We have promulgated regulations on subsistence harvest of Cook Inlet beluga whales (73 FR 60976, October 15, 2008). These regulations constitute an effective conservation plan regarding Alaska Native subsistence harvest. They are not, however, comprehensive in addressing the many other issues now confronting Cook Inlet belugas.

We are not aware of conservation efforts undertaken by foreign nations specifically to protect Cook Inlet beluga whales. We support all conservation efforts by states and other entities that are currently in effect; however, these efforts lack the certainty of implementation and effectiveness so as to have removed or reduced threats to Cook Inlet belugas. In developing our final listing determination, we have considered the best available information concerning conservation efforts and any other protective efforts by states or local entities for which we have information. We conclude that existing conservation efforts do not

provide sufficient certainty of effectiveness to substantially ameliorate the level of assessed extinction risk for Cook Inlet beluga whales.

### **Final Listing Determination**

The ESA defines an endangered species as any species in danger of extinction throughout all or a significant portion of its range. Section 4(b)(1) of the ESA requires that the listing determination be based solely on the best scientific and commercial data available, after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any state or foreign nation to protect and conserve the species.

We reviewed the petition, the 2006 and 2008 Status Reviews, other available published and unpublished information, and comments received in response to the proposed rule to list Cook Inlet beluga whales as an endangered species. We also consulted with beluga whale experts. On the basis of the best available scientific and commercial information available, we conclude the Cook Inlet beluga whale DPS is in danger of extinction, and should be listed as an endangered species.

### **Prohibitions and Protective Measures**

Section 9 of the ESA prohibits certain activities that directly or indirectly affect endangered species. These prohibitions apply to all individuals, organizations, and agencies subject to U.S. jurisdiction. Sections 7(a)(2) of the ESA requires Federal agencies to consult with us to ensure that activities they authorize, fund, or conduct are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with NMFS. Examples of Federal actions that may affect Cook Inlet beluga whales include coastal development, oil and gas development, seismic exploration, point and non-point source discharge of contaminants, contaminated waste disposal, water quality standards, activities that involve the release of chemical contaminant and/or noise, vessel operations, and research. Sections 10(a)(1)(A) and (B) of the ESA authorize NMFS to grant exceptions to the ESA's Section 9 "take" prohibitions. Section 10(a)(1)(A) scientific research and enhancement permits may be issued to entities (Federal and non-federal) for scientific purposes or to enhance the propagation or survival of a listed species. The types of activities potentially requiring a

section 10(a)(1)(A) research/enhancement permit include scientific research that targets Cook Inlet beluga whales. Under section 10(a)(1)(B), the Secretary may permit takings otherwise prohibited by section 9(a)(1)(B) if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

#### Identification of Those Activities that Would Constitute a Violation of Section 9 of the ESA

On July 1, 1994, we and the USFWS published a series of policies regarding listings under the ESA, including a policy to identify, to the maximum extent possible, those activities that would or would not constitute a violation of section 9 of the ESA (59 FR 34272). The intent of this policy is to increase public awareness of the effect of our ESA listings on proposed and ongoing activities within the species' range. We identify, to the extent known, specific activities that will be considered likely to result in violation of section 9, as well as activities that will not be considered likely to result in violation. Activities that we believe could result in violation of section 9 prohibitions against "take" of the Cook Inlet beluga whale include: (1) Unauthorized harvest or lethal takes; (2) in-water activities which produce high levels of underwater noise which may harass or injure whales; (3) coastal development that adversely affects beluga whales (e.g., dredging, waste treatment); (4) discharging or dumping toxic chemicals or other pollutants into areas used by beluga whales; and (5) scientific research activities.

We believe, based on the best available information, the following actions will not result in a violation of Section 9: (1) federally funded or approved projects for which ESA section 7 consultation has been completed, and that are conducted in accordance with any terms and conditions we provide in an incidental take statement accompanying a biological opinion; and (2) takes of Cook Inlet beluga whales that have been authorized by NMFS pursuant to section 10 of the ESA. These lists are not exhaustive. They are intended to provide some examples of the types of activities that we might or might not consider as constituting a take of Cook Inlet beluga whales.

#### Critical Habitat

Section 3(5)(A) of the ESA defines critical habitat as "(i) the specific areas within the geographical area occupied by the species, at the time it is listed...on which are found those

physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed...upon a determination by the Secretary that such areas are essential for the conservation of the species." Section 3(3) of the ESA (16 U.S.C. 1532(3)) also defines the terms "conserve," "conserving," and "conservation" to mean "to use and 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 chapter are no longer necessary."

Section 4(a)(3) of the ESA requires that, to the extent practicable and determinable, critical habitat be designated concurrently with the listing of a species. Designation of critical habitat must be based on the best scientific data available and must take into consideration the economic, national security, and other relevant impacts of specifying any particular area as critical habitat. Once critical habitat is designated, section 7 of the ESA requires Federal agencies to ensure that they do not fund, authorize, or carry out any actions that are likely to destroy or adversely modify that habitat. This requirement is in addition to section 7's requirement that Federal agencies ensure their actions do not jeopardize the continued existence of the species.

In determining what areas qualify as critical habitat, 50 CFR 424.12(b) requires that NMFS consider those physical or biological features that are essential to the conservation of a given species including space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing of offspring; and habitats that are protected from disturbance or are representative of the historical geographical and ecological distribution of a species. The regulations further direct NMFS to "focus on the principal biological or physical constituent elements . . . that are essential to the conservation of the species," and specify that the "Known primary constituent elements shall be listed with the critical habitat description." The regulations identify primary constituent elements (PCEs) as including, but not limited to: "roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant

pollinator, geological formation, vegetation type, tide, and specific soil types."

The ESA also directs the Secretary of Commerce to consider the economic impact of designating critical habitat, and under section 4(b)(2) the Secretary may exclude any area from such designation if the benefits of exclusion outweigh those of inclusion, provided that the exclusion will not result in the extinction of the species. Such an economic analysis is not currently available; we intend to initiate this research upon listing.

At this time, we lack the data and information necessary to identify and describe PCEs of the habitat of the Cook Inlet beluga whale, as well as the economic consequences of designating critical habitat. In the proposed rule, we requested information on the economic attributes within the Cook Inlet region that could be impacted by critical habitat designation, as well as identification of the PCEs or "essential features" of this habitat and to what extent those features may require special management considerations or protection. However, few substantive comments were received on this request. We find designation of critical habitat to be "not determinable" at this time. The ESA requires publication of a final rule to designate critical habitat within 1 year of the date of publication of this final listing rule.

#### Classification

##### *National Environmental Policy Act (NEPA)*

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered when assessing species for listing. Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation v. Andrus*, 657 F. 2d 829 (6th Cir. 1981), we have concluded that ESA listing actions are not subject to the environmental assessment requirements of the NEPA. (See NOAA Administrative Order 216-6.)

##### *Executive Order (E.O.) 12866, Regulatory Flexibility Act, and Paperwork Reduction Act*

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analyses required by the Regulatory Flexibility Act are not applicable to the listing process. In addition, this rule is exempt from review under E.O. 12866. This final rule does not contain a collection of information requirement for the

purposes of the Paperwork Reduction Act.

*E.O. 13132, Federalism*

E.O. 13132 requires agencies to take into account any federalism impacts of regulations under development. Section 6 requires agencies to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. We have determined that the rule to list the Cook Inlet beluga whale under the ESA is a policy that has federalism implications, as defined in Section 1. Consistent with the requirements of E.O. 13132, recognizing the intent of the Administration and Congress to provide continuing and meaningful dialogue on issues of mutual State and Federal interest, and in keeping with Department of Commerce policies, we requested information from appropriate State resource agencies in Alaska regarding the proposed ESA listing. The Alaska Departments of Fish and Game (ADFG); Natural Resources; Commerce, Community and Economic Development; and Environmental Conservation responded with comments to the proposed rule. The ADFG raised concern for the adequacy of existing population trend data, and by letter dated December 24, 2007, requested a 6-month extension on the final listing decision to allow for incorporation of 2008 abundance estimates. As stated above, we determined that the extension was warranted, and we analyzed additional data and conducted further

analyses during that time that support this final listing action.

*E.O. 13175, Consultation and Coordination with Indian Tribal Governments*

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and co-management agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. E.O. 13175—Consultation and Coordination with Indian Tribal Governments—outlines the responsibilities of the Federal Government in matters affecting tribal interests. Section 161 of Public Law 108–199 (188 Stat. 452), as amended by section 518 of Public Law 108–447 (118 Stat. 3267), directs all Federal agencies to consult with Alaska Native corporations on the same basis as Indian tribes under E.O. 13175.

We have contacted those tribal governments and Native corporations that may be affected by this action, provided them with a copy of the proposed rule, and offered the opportunity to comment on the

proposed rule and discuss any concerns they may have. No requests for consultation were received.

**References Cited**

A complete list of all references cited in this rulemaking can be found on our website at <http://www.fakr.noaa.gov/> and is available upon request from the NMFS office in Juneau, Alaska (see ADDRESSES).

**List of Subjects in 50 CFR Part 224**

Endangered and threatened species.

Dated: October 17, 2008.

**James W. Balsiger,**

*Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.*

■ For the reasons set out in the preamble, 50 CFR part 224 is amended as follows:

**PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES**

■ 1. The authority citation of part 224 continues to read as follows:

**Authority:** 16 U.S.C. 1531–1543 and 16 U.S.C. 1361 *et seq.*

**§ 224.101 [Amended]**

■ 2. In § 224.101, amend paragraph (b) by adding, “Beluga whale (*Delphinapterus leucas*), Cook Inlet distinct population segment;” in alphabetical order.

[FR Doc. E8–25100 Filed 10–17–08; 11:15 am]

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