

**MARINE MAMMAL COMMISSION**  
4340 EAST-WEST HIGHWAY, ROOM 905  
BETHESDA, MD 20814

27 June 2005

Ms. Kaja Brix  
Assistant Regional Administrator for Protected Resources  
National Marine Fisheries Service  
PO Box 21668  
Juneau, AK 99802-1668

Dear Kaja:

Thank you for providing the Marine Mammal Commission with a copy of the Draft Conservation Plan for the Cook Inlet Beluga Whale. The Commission, in consultation with its Committee of Scientific Advisors, has reviewed the draft conservation plan and provides the following comments and recommendations.

The document includes much useful information and, with some judicious editing, better organization, and more focus on identifying and ranking needed actions, it could become a valuable tool for guiding the recovery of the Cook Inlet beluga whale for years to come. As written, however, the draft conservation plan is a ponderous document that in some parts is overly broad and in others is much too detailed. What is needed is a more focused document that clearly describes the threats to the population, identifies specific actions to address those threats, discusses how those actions would contribute to the recovery of the stock, provides a budget for each action, and establishes clear priorities for undertaking those actions.

Also, the Commission notes that the draft plan addresses the issue of listing Cook Inlet belugas under the U.S. Endangered Species Act (ESA). In this regard, we believe that the biological situation clearly merits an ESA listing and that the National Marine Fisheries Service should pursue such a listing as a matter of priority.

As a result of our review, the Marine Mammal Commission makes the following major recommendations:

- that the current draft of the conservation plan be substantially reorganized and rewritten, and that a revised version of the plan be provided to the Commission for comment; and
- that the Service proceed in an expeditious manner to reconsider listing of Cook Inlet belugas under provisions of the ESA.

Additional rationale for these recommendations and specific comments on items in the draft conservation plan are attached.

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I hope you find these comments helpful. The Commission is anxious to see the Service proceed with important actions to conserve and recover the Cook Inlet beluga population. We will be happy to assist in any way.

Sincerely,

A handwritten signature in black ink that reads "David Cottingham". The signature is written in a cursive style with a long horizontal flourish extending to the right.

David Cottingham  
Executive Director

Attachment

cc: P. Michael Payne

## **Marine Mammal Commission Comments on Draft Conservation Plan for Cook Inlet Beluga Whales**

### A. General Comments

#### 1. Comments on Organization and Content of the Plan

The second and third sections of the plan, which discuss the biology and life history of beluga whales and the possible factors influencing the population, read more like an environmental impact statement than a conservation plan, erring on the side of over-inclusiveness, speculation, and redundancy. Although some of this information is relevant and sets the stage for the proposed research and recovery actions, a more concise and directed presentation would sharpen the focus of the plan.

What is needed is a succinct description of the problem along the following lines –

The Cook Inlet beluga whale population was reduced considerably during the 1990s, ostensibly by over harvest by Alaska Native subsistence hunters. The Service and others believed that once these unsustainable levels of taking had been eliminated, the population would begin to grow at between two to six percent per year. The Service predicted in 2000 that, even with a limited harvest by subsistence hunters, the population could recover to its optimum sustainable population level within about 25 years. Data collected over the past several years, however, indicate that the population is not growing as expected, despite the fact that only three whales have reportedly been taken by hunters since 1998. Based on data from the annual population surveys, there is about a 75 percent probability that the actual growth rate of the population is less than 2 percent (the lower bound of the theoretical growth rate for a small cetacean stock) and there is about a 43% probability that the actual growth rate is negative.

There could be three possible explanations for the observed population trend. First, the data and analyses could be giving a false impression of the true population trends. That is, the population could be growing more or less as expected, but for some reason, the surveys are failing to detect it. Second, some factor or combination of factors is acting on the population to depress its reproductive rate. Third, some factor or combination of factors is removing animals from the population. It is also possible that these elements are acting in combination. Currently, we are unable to resolve which of these possible explanations is in fact the case, so we are unable to explain why the population apparently is not recovering as expected.

Key elements of the conservation plan should be to track the population's abundance, or at least the trend in abundance, and to ascertain the reason or reasons for the failure of the population to exhibit detectable recovery. As recommended by the Alaska Scientific Review Group, obtaining accurate annual abundance estimates should be the highest research priority. Currently, the Service conducts annual aerial surveys of the population, which it

intends to continue. The Service should also consider ways to improve on those surveys by reducing the confidence intervals around the resulting abundance estimates. In addition,

employing other techniques, such as a mark-and-recapture study, should be considered as a secondary source of abundance estimates.

If, as appears to be the case, the population is not growing, or growing much more slowly than expected, research into the causes for the low recruitment needs to be undertaken on a priority basis. At least initially, such research should be directed at identifying whether the problem is low natality (possibly resulting from abnormal age structure, abnormal sex ratio, etc.), high mortality, or combination of these factors. Answering these fundamental questions will help focus future research into possible causes for the observed trends and possible remedial actions that might be taken.

This does not mean that research into specific potential causes should be delayed until the more basic questions have been fully addressed, particularly when such investigations involve long-term or longitudinal studies. For example, exposure to contaminants could be a factor contributing to either a depressed birth rate or a heightened mortality rate. As such, specimens should continue to be collected and analyzed for contaminants on an opportunistic basis from whales that strand, are taken for subsistence purposes, or otherwise become available.

This type of clear statement should form the foundation of the conservation plan, and from which the conservation strategy and step down outline should flow.

The core of this and other conservation plans is the conservation strategy and the step down outline that identify and assess specific actions to be taken under the plan. Much of the material included in section 4 of the draft plan appears to be drawn almost verbatim from the Cook Inlet beluga research plan, which has been provided with the plan as Appendix D. As a result, it is not always clear how a specific task relates to the overall conservation/stock recovery goal of the plan, what priority should be given various tasks, how the components of the strategy fit together, and how the necessary research and management program will be developed and funded. The Commission believes that this is the biggest shortcoming of the plan and recommends that substantial re-writing and re-organization of this section be done before the plan is adopted. Suggested subsections to form the structure for such a revision include (1) population monitoring; (2) habitat use and conservation, (3) factors potentially affecting reproduction and birth rates, (4) factors potentially affecting survival, and (5) related management actions. The last category should be included to capture activities that are not directly related to understanding or addressing possible causes of the population's decline or rate of recovery, but which may be useful tools for achieving recovery, such as public education and outreach, enforcement, administrative matters, etc. This section should also describe the programmatic actions needed to implement the conservation plan.

As drafted, many of the identified actions in the plan do not fit well under the heading where they currently are placed. For example, it is unclear why monitoring and identifying killer whales in Cook Inlet is included in the section on stranding events, rather than predation, or why the habitat

impacts of oil development and coastal development are included in the research actions identified in the vessel traffic section of the step down outline, rather than being placed, respectively under the sections on oil and gas and coastal development. There are many more such examples that could be provided. Some of these organization problems will be easy to fix by slight changes to or rearranging of the text. Others, however, are more fundamental and will require significant restructuring of the layout of the plan.

As drafted, many of the tasks concerning population monitoring and those related to understanding population trends are scattered throughout the plan. For example, research to assess growth patterns of beluga whales is included as a sub-element of the task to assess the role stranding events may be having in retarding recovery of the population. Similarly, the research task on population trend analysis is placed as a sub-element of the section on predation and research into calving patterns is placed in the tourism and whale watching section. Although there is a link between population monitoring and the number of beluga whales that can be taken for subsistence under the harvest regimes being considered in the formal rulemaking to establish harvest limits, placement of the tasks for conducting surveys/estimating abundance and for studying dive behavior to refine correction factors as activities under the subsistence harvest task discounts the cross-cutting importance of these monitoring activities to the other elements of the plan. Rather than dispersing these elements concerning population monitoring and assessment of population trends under these tenuously related headings, as is the case in the draft plan, these elements need to be brought together in a comprehensive section on population monitoring and population trends.

Another organizational anomaly is placement of the task to characterize beluga whale habitat as a sub-element of the investigation into the role of commercial fishing on the population's status. Although understanding habitat use patterns is important in assessing the potential effects that commercial fisheries might be having on the stock, understanding such patterns is likewise important in assessing the risks posed by other types of activities. Therefore, as outlined above, the Commission recommends that a task (or several tasks under a separate heading) be placed in a separate section that specifically assesses habitat needs and use patterns and identifies steps to be taken to conserve important habitat areas. This would enable the drafters to pull together the disparate, habitat-related, tasks of the draft plan (e.g., distribution and movement patterns and habitat impacts of various human activities, currently under the vessel traffic section) into a more general task to identify and develop a strategy for protecting important beluga whale habitat.

By drawing as heavily as it does on the research plan, the draft conservation plan often provides a needless level of detail that is unnecessary and counterproductive to providing a clearly defined conservation plan. For example, it is important to indicate that the Service intends to conduct annual abundance surveys and that those surveys will be done in a consistent way that allows for inter-annual comparisons. The type of aircraft that will be used, the speed and altitude at which observations will be made, the number and placement of observers, the number of counts that are made, the manner in which video tapes are analyzed, etc., are all largely irrelevant in the context of the conservation plan, as long as consistency is achieved in the surveys. Similarly, the discussion of stock identification using mtDNA analyses goes into unnecessary detail about the laboratory procedures to be followed, going so far as to identify the specific software that will be used to aid in the analyses.

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Another confusing detail incorporated into the draft conservation plan from the research plan are the alpha-numeric references under each research action heading in the plan and under the discussion of objectives for specific research activities. The conservation plan should be a stand-alone document that clearly describes how each element fits into achieving the recovery goal of the Marine Mammal Protection Act, identifies what research is needed to understand the nature and scope of the potential threats, and explains how that research will be used to inform management actions.

The organization of the implementation schedule, which reflects the structure of the conservation strategy and step down outline, is similarly confusing. Reorganizing the discussion in the conservation strategy/step down outline along the lines recommended above will necessitate considerable reworking of the implementation schedule, but should make it a more valuable tool that better groups monitoring, habitat conservation, and other related tasks. Such a restructuring should enable the Service to provide a more logical justification for the priorities assigned to different tasks, such that the highest priorities would be given to tasks related to monitoring population trends, protecting important habitat, and identifying and addressing the factors most likely contributing to the population's decline or slower than expected growth.

2. Comments on Listing the Cook Inlet Beluga Whale under the Endangered Species Act

The draft conservation plan appropriately includes a section that discusses possible listing of the Cook Inlet beluga whale under the Endangered Species Act. The Service notes in this regard that it intends to initiate a formal status review of the population in conjunction with the development of the conservation plan and that a schedule for conducting the review "will be developed over the coming months." The Commission believes that review of the status of the Cook Inlet beluga whale under the Endangered Species Act is a priority issue that needs to be addressed promptly. We are concerned that coupling such a review with development of the conservation plan will delay a determination on the merits of listing the stock as endangered or threatened. Given the existing information, waiting months to map out a strategy for reviewing the status of the stock is unnecessary. In fact, we question whether the type of lengthy status review envisioned by the Service is even necessary, and believe that the Endangered Species Act provides sufficient latitude for the Service to proceed directly to publication of a proposed listing rule.

As for the merits of a proposed listing, the Commission believes that the case is clear. The Service has already determined that the Cook Inlet beluga whale constitutes a distinct population segment for listing purposes. It is a slow growing (K-selected) stock that has been reduced to a critically low level (between 350 and 400 animals) that, despite almost no removals by subsistence hunters over the past six years, has shown no signs of recovery. By way of comparison, the population numbers only slightly more than the North Atlantic right whale, which the Service considers to be critically endangered.

The determination made by the Service in 2000 that listing the stock was not warranted identified subsistence hunting as the only factor to account for the observed decline of the population in the 1990s, and concluded that controlling that factor would be sufficient to provide for recovery of the stock. Data collected since that time strongly suggest that the Service's

conclusion was incorrect. In the absence of any appreciable take by subsistence hunters (three animals are reported to have been harvested since 1998) the population has not increased as expected, and may actually have continued to decline.

Thus, we are faced with a distinct cetacean stock that has been reduced to a very low level and that does not appear to be recovering despite the near elimination of the one identified factor implicated in the decline. Moreover, the Service appears already to have concluded (see the last sentence on page 86 of the draft plan) that at least one of the factors that would warrant listing under the Endangered Species Act is present. This seems to constitute a compelling case for listing. The Commission therefore questions what is to be gained by deferring action on a listing proposal pending completion of the conservation plan or completion of a new, comprehensive review of the status of the stock. In fact, it would make more sense to decouple a listing decision from development of the conservation plan so that a final plan could reflect, or at least anticipate, additional conservation tools that would be available under the Endangered Species Act.

## B. Specific Comments

Table of Contents – The Table of Contents provides the only roadmap to the document. While reference is made to a step down outline in several places, including the Table of Contents, a step down outline is not, but should be, provided. In section 4 of the Table of Contents, what should be “Objective II” is called “Objective I.” Also, in the Table of Contents it would be helpful to identify what the actual objectives are, e.g., “Objective I—Identify, and eliminate or mitigate, factors preventing recovery.”

Executive summary, page i, par. 2 – The first sentence of this paragraph states that the Cook Inlet stock of beluga whales “may once have numbered *as many as 1,300* but declined dramatically during the last decade.” (Emphasis added.) Although 1,300 is the figure for carrying capacity adopted by the Service in the formal rulemaking to govern subsistence taking from this stock, it was selected somewhat by default, based on the best available information. The parties to the rulemaking recognized that the estimate, while the best available, is based on survey methods and correction factors that have considerable uncertainty associated with them. As such, the estimate of 1,300 whales should not be treated as an upper bound for the estimated pre-exploitation population size. Rather, it is a best estimate and the actual carrying capacity may be more than or less than that figure. It should also be noted that the estimate of 1,300 was based on surveys conducted in 1979, at a time when the stock may already have been adversely affected by human activities in and around Cook Inlet. As such, even if the survey results were precise, the actual carrying capacity may be higher than that estimate. The discussion of carrying capacity needs to reflect these points, both in the executive summary and elsewhere in the document.

Species Description, page 1, last par. -- The first few sentences of this paragraph indicate the calving season as between mid-May and mid-July, based on Calkins 1983, and perhaps extending through August, based on traditional knowledge. These statements seem to be at odds with the conclusion reached in the final rule governing subsistence taking published by the Service on 6 April 2004, in which the Service concluded that the start of the hunting season could be moved up to 1 July of

each year without exposing near-term pregnant females to increased risks of being taken. These statements need to be reconciled.

Population Status, page 4, par. 3 – The last sentence in this paragraph states that the Cook Inlet beluga whale “has not been listed under the ESA.” The rationale for the Service's determination that listing was not warranted should also be included. In this regard, the 22 June 2000 *Federal Register* notice announcing that determination indicated that subsistence harvest, “which has been identified as the only factor that can account for the observed decline....,” is being adequately controlled. Further, the Service noted that its modeling of the population had concluded that “the stock is not likely to continue to decline if the harvest is controlled” and “could be expected to double in about two decades” absent any harvest. These apparent inconsistencies should be discussed.

Population Status, page 4, par. 4 -- The first sentence of this paragraph notes that “[h]arvests from this population have been severely restricted...since 1999...” This sentence would be more accurate if the word “authorized” were inserted at the beginning, because, as drafted, it seems to discount the possibility that unauthorized hunting has occurred. Although the Commission has no basis to believe that any unauthorized taking has occurred since hunting restrictions were established, it is one possibility that could explain the observed population trends. As such, the possibility merits mention and investigation as part of a comprehensive conservation plan.

The third sentence of this paragraph states that “[t]here is considerable concern regarding the population biology for small cetacean stocks such as the CI beluga whale, both for its recovery and its existence.” The Commission agrees that this is an accurate portrayal of the situation faced by the Cook Inlet beluga whale. We note, however, that this assessment seems inconsistent with the conclusions reached by the Service in its determination that listing the stock under the Endangered Species Act was not warranted. Additional explanation of these apparent discrepancies in agency positions should be provided.

Population Status, page 5 – This discussion cites the Marine Mammal Commission’s assessment that there is about a 75 percent probability that the population, if it is growing at all, is growing less than 2 percent per year. The Commission believes that it would be useful to include a figure showing the distribution of likely  $R_{max}$  values that formed the basis for that conclusion. (Such a graph was included in a 5 May 2005 presentation given by Dr. Goodman at the Alaska Fisheries Science Center.) Inclusion of that graph would also illustrate that, based on abundance data from 1994 to 2004, there is nearly a 50 percent probability that the intrinsic “growth” rate of the population over that period has been negative.

Distribution and Movements, Page 11, par. 1 – This paragraph concludes with the assessment that, even though the range of the Cook Inlet beluga whale seems to have contracted as the stock has declined, “maintaining quality habitats in these areas is essential to recovery of the population.” The Commission agrees that this is a critical element of a recovery strategy. As such, the conservation plan should expand the discussion of authorities that are available and actions that can be taken to conserve not only extant, but prospective and former, beluga whale habitat. This issue is included in the step-down outline (see, e.g., I.n., I.o. I.p., and II.b.), but the presentation is so general and truncated as to not be very useful or illuminating.

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Feeding behavior, page 12 – The first paragraph of this section presents a list of prey species eaten by beluga whales. Curiously, eulachon, which are described in subsequent paragraphs as a very important food source, is omitted from the list. It should be added and its importance should also be noted in the introductory paragraph.

Habitat Use and Requirements, pages 13-16 – This section describes efforts that the Service has taken to identify “high value” and “high sensitivity” habitats. This seems to be a useful approach that could lead to directed and important conservation actions. However, other than the statement “NMFS has characterized the relative value of these habitats as part of the management and recovery strategy presented in this Conservation Plan” there is no description of what data, criteria, etc., were used to map the habitat types as shown in Figure 5. Because conservation of these habitats is a major focus of the plan, the process for identifying and mapping habitat types should be described in detail.

The final paragraph of this section indicates that a primary focus of the conservation plan is the conservation of all known beluga whale habitats. Further, the draft plan emphasizes that a key objective is to preserve all Type I habitats. Nowhere in the plan, however, does the Service indicate precisely what steps it will take to ensure that Type I habitat is not lost or degraded or how other habitats used by the Cook Inlet beluga whale will be conserved. This is a serious shortcoming of the plan and an area that merits much more detailed discussion.

Management, page 18, par.1 -- This paragraph ends with a statement that “based on the best scientific data available,” the Service determined that listing the stock as endangered or threatened under the Endangered Species Act was not warranted. It would be appropriate to note here that new data collected since the Service published that determination in 2000, at least in part, undermine the basis for the determination and that re-examination of the issue is needed. In fact, the discussion of possible listing of the stock under the Endangered Species Act (pages 85-87) indicates that, at the time the draft conservation plan was prepared, “there is evidence that one or more of [the listing] factors would apply to this stock.”

Management, page 18, pars. 2-3 – These two paragraphs give “MMPA 1995” as the reference for various statutory provisions. However, no such listing is included in the literature cited. In addition, by attributing these statutory provisions to a particular year, the plan may create some confusion as to whether they are still in force. The more conventional citation format for statutory material (e.g., 16 U.S.C. § 1362(1)), as used in the first paragraph of this section, should be used here as well. For legislative history materials drawn from committee reports, the conventional citation format, identifying the specific report and page number, should be used.

The discussion of strategic stocks in the third paragraph creates the impression that identifying a stock as strategic is discretionary. In addition, it indicates that a strategic stock is one for which the level of human-caused mortality and serious injury “are likely to cause the stock to be reduced below its OSP.” This discussion should be revised to track the statutory definition of the term “strategic stock” provided in section 3(19) of the Marine Mammal Protection Act and to note that stocks are identified as “strategic” whenever those criteria are met.

Management, page 18, par. 4 – The first sentence of this paragraph suggests that “the PBR approach” is used to manage human activities other than fisheries. This should be revised to clarify that, while human-caused removals from all sources are considered in determining whether or not a stock should be classified as strategic, under the current statutory scheme, PBR, as a limit on taking, is applicable *only* to the authorization and regulation of taking marine mammals incidental to commercial fishing operations.

Management, page 19, par. 2 – This paragraph includes declarative statements about the long-term harvest management plan. While it may be appropriate to discuss what the Service has proposed, or to provide a conditional discussion, it is not appropriate to state specifically what the management plan will include until the rulemaking process has been concluded. For example, the proposed plan submitted by the Service would not provide for “a limited number of allowable strikes each year” in all instances -- e.g., if the stock declines below 350 or if the unusual mortality provision is triggered. The last sentence of this paragraph also needs to be revised. The referenced figure illustrates a *theoretical* growth curve for a small cetacean stock, and not necessarily the *expected* growth curve of the Cook Inlet beluga whale. Including such a graph in the plan presents a very different picture than that provided by the Service in its latest submissions in the subsistence harvest rulemaking. In this regard, the Service indicated that the population did not appear to be growing at the expected (4 percent) rate and that it could not provide reasonable certainty that the population will recover within an acceptable period under any harvest regime.

Recovery, page 19, par. 3 -- The last sentence of this paragraph should be revised to clarify that the Service has not “defined” MNPL as 60 percent of K. Rather, the Service, in various rulemakings involving small cetaceans (eastern tropical Pacific dolphins, Dall's porpoise, and Cook Inlet beluga whales), has adopted 60 percent of carrying capacity as a reasonable estimate of the point at which maximum net productivity is achieved.

Page 20, Figure 6 – As noted above, this figure provides an unreasonably optimistic picture of the prospects for speedy recovery of the Cook Inlet beluga stock. It would be much more useful if the conservation plan included a graph that compared the projected recovery of the population using the theoretically derived value for  $R_{max}$  with that empirically derived from the survey data. The comparison between recovery with no subsistence taking and the two harvesting alternatives presented, assuming a four percent growth rate, is misleading in the current situation and largely irrelevant in the context of the conservation plan and should be deleted.

Recovery, page 20, par. 1 – This paragraph states that the Service will collect more information that will help it refine the estimates of K and MNPL. Considerable thought has already gone into the conclusion that the current estimates of K and MNPL, though uncertain, are the best available. No rationale is given for the premise that there are realistic prospects for improving these estimates for this population. The discussion therefore should be expanded to identify what information will be collected and how it will be used to improve the estimates of these population parameters.

Stranding Events, pages 21-23 – Table 1 presents data on the number of Cook Inlet beluga whales that have stranded and the number of whales that have died as a result of stranding since 1988. However, neither the table nor the accompanying text explains that these data are derived from

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monitoring efforts that are concentrated in particular areas during particular times of the year. As such, they likely under-represent the actual number of strandings and stranding-related mortalities that occur each year. This should be noted in the discussion. Also, the table should be amended to indicate that these data represent minimum estimates.

Page 28, Figure 7 – The data in this chart, when viewed in the Service's website or downloaded and printed in color, are easy to interpret. In the black and white copies of the plan provided to the Commission, however, the data for females and males are difficult to distinguish. We suggest that different colors, shading, or patterns be used so that the figure can be understood regardless of how it is printed or viewed. Also, the paragraph below the Figure caption makes the statement that “[t]he cultural and nutritional values of subsistence harvests to Alaska Natives must be recognized in any conservation plan. . . .” We are unaware of any specific statutory requirement that such concerns be recognized in a conservation plan. Justification should be provided for this statement or it should be modified or deleted. Also, the figure caption should be modified to read “Estimated subsistence harvest. . . .”

Commercial Fishing, page 29, par. 1 -- In this paragraph and elsewhere in this section, reference is made to the logbook reporting program and self-reporting program. The discussion should note that comparisons between data derived from these types of reporting programs and those from observer programs indicate that the reporting programs have a tendency to under-represent marine mammal interactions. This is a relevant consideration in the context of the conservation plan, which otherwise might be interpreted as according equal reliability to data from the various sources.

Noise, pages 39-40, carryover par. – The final sentence on page 39, which continues on page 40, seems to characterize displacement from important habitats as being “non-injurious.” Such an interpretation is contrary to the definition of harassment added to the Marine Mammal Protection Act in 1994, which includes acts that have the potential to injure a marine mammal or marine mammal stock in the wild. The fact that the definition includes not only potential injuries to individual marine mammals, but potential injuries to stocks underscores that this element of “taking” under the Act includes all type of injuries to marine mammals, not just physical injuries. The sentence should therefore be revised to state that habitat displacement can, in fact, be injurious and that impacts other than physical injuries need to be considered under the Act's definition.

Noise, page 40, par. 1 – The third sentence of this paragraph indicates that the Service has adopted 160 dB re: 1 $\mu$  Pa. as the lower threshold for noise that may cause behavioral impacts to beluga whales. The Commission is aware of no such determination concerning behavioral impacts associated with noise. We suggest that the accuracy of this statement be checked and, if it is retained, that a reference to the adoption of a particular sound level be provided. (See e.g., Finley et al., 1990, in which beluga whales fled the first icebreaker noise of the season at received levels of 94 to 105 dB.)

Research, page 42, last par. -- The Commission is pleased that the Service anticipates continuing and expanding its research program concerning Cook Inlet beluga whales and that this research “would certainly include continuing annual abundance surveys.” As you know, the Commission has stressed

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the need to maintain the frequency and power of those surveys as a key element of the agency's research and management programs for this stock. We continue to consider this a crucial issue.

Conservation Strategy and Step Down Outline, pages 43 *et seq.* – This section does not, but should, provide a step down outline.

Conservation Strategy and Step Down Outline, page 43, par. 3 – The final paragraph in the introduction to this section reminds readers of the role that past subsistence harvests have had on the decline of the Cook Inlet beluga population and stresses that management of subsistence hunting is the “foremost priority” in the Service's recovery strategy. While there is little doubt that over-harvest was the central factor in causing the depletion of this stock, the regulation of subsistence uses under the Marine Mammal Protection Act and Public Law 106-553 seems to be the one potential threat that is being adequately addressed (assuming that no unauthorized hunting is occurring). If, as currently appears to be case, the stock is not recovering as expected for reasons other than directed take, high priority will also need to be given to other research and management tasks.

Cook Inlet Beluga Strandings, page 47, par. 6 – Reference is made here to the “Conservation Team,” but such a team is not mentioned anywhere else in the document. If the Service is expecting that a conservation team will be established, then an activity to create the team should be included in the plan, perhaps under Objective III.

Harvest monitoring and mortality estimation, page 51 – All beluga whales taken in Cook Inlet by subsistence hunters are to be reported and the lower jawbone presented to the Service for marking by the whaling captain or vessel operator under regulations codified at 50 C.F.R. § 216.23(e). Additional notice and reporting requirements are included in the co-management agreements entered into between the Service and subsistence hunters. Thus, it would seem that the Service already has effective means in place to gather the types of information envisioned under this task. This should be noted in the discussion. The most pressing need with respect to harvest monitoring and mortality estimation – determining whether, and the extent to which unauthorized taking may be occurring – needs to be specifically addressed in the plan. Also, as noted above, the plan, at least at this stage, should not state definitively what future harvest levels will be allowed until the rulemaking to establish those harvest levels has been completed.

Commercial Fishing, pages 51-56 – The identified tasks primarily address specific aspects of the dietary needs of beluga whales and where they may be foraging without ever posing the underlying question of whether Cook Inlet beluga whales appear to be nutritionally stressed. We therefore recommend that a task to monitor the condition of animals be included in the plan and that the priority assigned to research aimed at understanding possible competition between beluga whales and commercial fisheries for prey be contingent on the results of that monitoring. As currently organized, the characterization of beluga whale habitat (page 52) is included in the step-down outline as a sub-element of research and management actions related to commercial fishing. Although fishery impacts and the availability of prey are two factors that should be considered when assessing habitat use patterns, many other factors may also be of importance. Thus, it would be

better to separate research relating to habitat use and the characterization of beluga habitat into a separate heading.

The reference to “harbor seals” on page 55 in the Justification section of “Incidental take by commercial fisheries” should say “Cook Inlet beluga whales.”

Sections I.e. through I.h., pages 56-62 – These sections discuss several human activities that could affect beluga whales, and especially their use of habitats. In some cases (Tourism and Whale Watching, and Oil and Gas) management actions are keyed to identified habitat types, while for others (Vessel Traffic, and Noise) they are not. If conservation of these identified habitats is to be a primary tool used in the plan, it would seem that this strategy should be employed in all instances where it would be useful. Also, in some of these sections (and in section I.k.) the statement is made that “...some of these actions may be outside federal authorities...” It would seem that the Service should be able to identify specifically what actions it believes are within and outside of federal authorities, and it would be much more useful to do so in the plan.

Vessel Traffic, pages 56-57 – The second paragraph under “Management Actions” states that it is unknown whether small boat operations are having significant adverse impacts on beluga whales. It also states that it is unclear what authority the federal government has to control such operations. This discussion should be revised to note that the operation of such vessels in a way that has the potential to injure or disturb a whale or other marine mammal would constitute harassment. As such, the Service has many management alternatives available to it. As noted in the discussion, it could seek to document and take enforcement action against those who engage in taking. It also has two other options available to it. It could promulgate regulations under section 112(a) of the Marine Mammal Protection Act to prohibit certain types of activities, including closing sensitive areas to those activities, prohibiting noises of certain frequencies and intensities, imposing speed limits, establishing approach limits, etc. The Service could also authorize the taking of small numbers of beluga whales under section 101(a)(5) of the Act by vessels, and in so doing authorize some level of taking, subject to various conditions designed to ensure that the impact of vessel noise is negligible and has been reduced to the lowest level practicable. Reliance on section 112(e) as the only potential source of federal authority to address vessel impacts on beluga whales, as suggested in footnote 10, is misplaced. Because the Service has broad rulemaking and enforcement authority under the Marine Mammal Protection Act to prevent and respond to takings, the last sentence under “Management Actions” should be deleted.

The tasks set forth under “Distribution and Movement,” “Habitat Impact,” and “Industry in Cook Inlet” do not relate specifically to vessel traffic and should be consolidated with similar items from other sections in a separate habitat section.

Tourism and Whale Watching, pages 58-59 – As with many of the other headings in the step-down outline, the listed actions do not always match-up with the identified threat. In this instance, it is not clear why research into calving patterns and habitat use for rearing calves is listed under “Tourism and Whale Watching.” This information has wider applicability in identifying important habitats and in identifying and avoiding other types of threats.

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Noise, pages 60-61 – The first sentence of the measures recommended under “Management Actions” indicates that the Service will (or at least can) use available federal laws, including the Marine Mammal Protection Act, “to restrict noise capable of harassment or injury to CI beluga whales.” This statement is inconsistent with the discussion of the Service’s ability to regulate takings or potential takings from noise associated with small-vessel operations (see comment above on the “Vessel Traffic” section).

The last paragraph under “Management Actions” needs extensive rewriting. First, the context of this discussion needs to be clarified. Presumably, what the authors are discussing is how the Service would respond to an application seeking authority to take beluga whales incidental to sound producing activities. If this is the case, the discussion should focus on what steps would be needed to meet the key statutory requirements – i.e., that the impact on the stock would be negligible, the possible adverse impacts on subsistence users have been mitigated, and the activities will have the least practicable adverse impact on the stock. The second and third sentences are particularly confusing. Among other things, they suggest that there are types of injuries (i.e., non-serious injuries) that are outside of the scope of what constitutes Level A harassment. The statutory definition of the term draws no such distinction.

Oil and Gas, page 62, par 4 – The fourth sentence in this paragraph recommends that NMFS and MMS re-evaluate the lease sale conditions and Notices to Lessees to see if they provide adequate protection for Cook Inlet beluga whales. Nowhere in the document, however, are the existing measures identified or possible deficiencies and remedies discussed. Such material would be a useful addition to the earlier discussion of oil and gas issues.

Objective II, page 72 – Part of the description of this objective (“... detect natural or human related causes of changes in the Cook Inlet stock of beluga whales and its habitat”) seems largely the same as Objective I (“Identify and eliminate or mitigate factors responsible for the decline in Cook Inlet beluga whales, or which may be preventing their recovery”). The contents of these two parts of the plan should be compared, and reorganized, revised, or re-titled as necessary.

Subsistence Harvest, page 73, par. 1 – The third sentence of this paragraph observes that monitoring and reporting requirements are incorporated into co-management agreements. This discussion should also note that the Service has promulgated regulations specifically establishing reporting and marking requirements for Cook Inlet beluga whales taken by subsistence hunters.

Implementation Schedule, pages 76-77 – The priority classifications need to be expanded to include activities that are needed to identify (and respond to) the cause or causes of the apparent failure of the population to increase at the expected rate. While possibly an element under proposed priority 1 or 2, such investigations are essential tasks and should explicitly be given high priority.

Appendix C, Stranding Response Plan – Presumably, this appendix is a final document and is provided for information purposes, rather than comment. If so, the date on which the plan went into effect should be noted. If changes to the document are contemplated, the Commission recommends that the last sentence in the first paragraph be expanded to add a fourth objective related to stock recovery. The Commission notes that stranding events provide an opportunity to

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obtain samples and other information relevant to stock recovery. We therefore recommend that collecting samples and otherwise maximizing the scientific value of strandings, at least as such research relates to tasks identified in the conservation plan, be made an explicit objective of the stranding response plan.