Marine Mammal Commission
4340 East-West Highway, Room 905
Bethesda, MD 20814-4447

4 March 2008

James W. Balsiger, Ph.D.
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Dear Dr. Balsiger:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's Draft Supplemental Environmental Impact Statement (DSEIS) on the Cook Inlet Beluga Whale Harvest. We offer the following recommendations and comments.

This is an issue that the Commission has been involved in for some time. The Commission was a party to the formal rulemaking through which the Service's proposed harvest regulations were developed. As such, we have commented extensively on the various harvest proposals put forth by the Service and other parties to the rulemaking and on the Administrative Law Judge's recommended decision, all of which are referenced throughout the DSEIS. The Commission also submitted comments on the draft conservation plan for Cook Inlet beluga whales, which the Service has incorporated by reference into the DSEIS. Those comments remain relevant to the selection of the alternatives considered in the DSEIS and the assessment of impacts, and we request that they be read along with this letter as comments on the DSEIS.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service—

- revise the DSEIS to indicate that it intends to maintain its current survey effort to continue to monitor the status of the Cook Inlet beluga whale population;
- not diminish the current survey effort without first conducting an analysis to assess the possible impacts on beluga whales and subsistence hunters that might result from decisions based on population data that are less reliable;
- analyze the possible effects of its selection of an expected mortality limit on the potential for recovery of the stock and consider alternatives to the one proposed; and
- give high priority to investigating possible causes of the stock's failure to recover as reflected in the observed population trend.

RATIONALE

For the most part, the Commission believes that the range of alternatives considered in the DSEIS is appropriate and that the DSEIS does a fairly good job of quantifying the potential impacts of those alternatives. However, as reflected in its past comments on the Service's proposed harvest regime, the Commission does not agree with the Service's assessment that those impacts are acceptable under the Marine Mammal Protection Act (MMPA).

We are pleased that the Service's preferred alternative proposes to implement the long-term harvest strategy beginning in 2008 in response to the fact that the five-year average abundance estimate remains below 350 whales. This is consistent with the approach set forth by the Commission in March 2007, when we recommended that no harvest be conducted in 2007 and that the Service retain sufficient flexibility to enable it to reduce or suspend hunting during the interim harvest period until the population shows clear evidence that it is recovering fast enough to withstand removals. On a related point, the Commission concurs with the Service that setting the population floor beyond which all harvest would be suspended at 350 whales is much more in keeping with the mandates of the MMPA than is Alternative 4, which would establish that level at 250 whales.

One issue that the Commission has raised in the past is the need for the Service to make a commitment to maintain its population monitoring effort at or above the present level. We continue to place great importance on this issue. Because harvest levels allowed under the proposed management regimes are driven largely by the information obtained from the Service's surveys, there is a compelling need to conduct those surveys in a way that will produce data at least as good as those on which the harvest management regime is being based. Any diminishment in the quality of that information could have profound effects on the population's ability to recover. This issue is not addressed in the DSEIS. Accordingly, the Marine Mammal Commission recommends that the National Marine Fisheries Service revise the DSEIS to clarify its intention to continue its current survey effort. If the Service is unwilling or unable to make such a commitment, the Marine Mammal Commission recommends that, before diminishing the current survey effort, the National Marine Fisheries Service conduct an analysis to assess the possible impacts on beluga whales and subsistence hunters that might result from decisions based on population data that are less reliable.

Another issue that the Commission has raised in the past concerns the proposed adjustments in harvest limits in response to unusually high observed mortality. The Commission concurs that such a provision should be included in the harvest regime but questions whether the baseline proposed by the Service is the appropriate one. The Service proposes to use data obtained since 1999 to establish the baseline for determining what level of mortality is normal. However, as reflected in Table 3-3, these are generally the years with the highest number of observed deaths. They are also the years during which the population has declined for undetermined reasons. Thus, making adjustment only when these already high levels are exceeded may allow harvests under a standard that perpetuates an abnormal situation. The Marine Mammal Commission therefore recommends that the National Marine Fisheries Service analyze the possible effects of its selection of an expected mortality limit on the potential for recovery of the stock and that it consider

alternatives that would base the limit on data from 1988–1995, when observed mortalities were lower, or on the full data set from 1988–2007.

The conclusions reached in the DSEIS paint a particularly sobering picture of the prospects for the future of the Cook Inlet beluga whale stock and the Alaska Native hunters who use this resource. Based on recent population trends, the harvest model indicates that there is a 77.5 percent probability that the population will decline further, even in the absence of hunting, and only an 8.7 percent probability that the goal of recovering the population to its optimum population level will be achieved. The population viability analysis (PVA) conducted by the Service predicts a 26 percent probability that the population will go extinct in the next 100 years and a 68 percent probability that it will be extinct 300 years from now. Based on these analyses, the Service concludes that "there is a relatively small probability that the Cook Inlet beluga whale population will increase to the point that subsistence harvest could be authorized under any of the alternatives."

Although the DSEIS recognizes a number of factors other than subsistence hunting that may be causing or contributing to the observed population trend, it tends to downplay their potential significance. For instance, the cumulative effects analysis concludes that "harvest is the only action believed to be having a population-level impact on Cook Inlet belugas." Based on the information included in the DSEIS, we are inclined to reach a much different conclusion. It seems that the existing combination of factors (i.e., the baseline against which the impacts of the proposed action are to be assessed) already are having significant adverse impacts on Cook Inlet beluga whales. Unless unreported hunting has been occurring in Cook Inlet over the past nine years, factors contributing to these impacts must be something other than subsistence harvests. These points need to be made clearly in the DSEIS.

Because existing factors already seem to be having adverse population-level effects on the Cook Inlet beluga whale to the point that they are at a high risk of extinction, we are particularly concerned about the reasonably foreseeable future actions planned for Cook Inlet listed in Table 4-4. It seems likely that the increased level of disturbance attributable to those actions and the other threats they may pose will only add to the adverse effects already operating on this stock. Until the causes for the ongoing failure to recover are identified, there is no basis for confidence that the situation might resolve itself. Therefore, the Service should make a concerted effort to investigate the possible causes of the observed decline and to identify possible remedial actions. Preparation of the draft conservation plan was a first step. However, the draft plan was released in March 2005, and almost nothing has been done in the intervening three years to investigate the possible causes of the decline. The Marine Mammal Commission recommends that the National Marine Fisheries Service not only continue monitoring the status of the population but give high priority to investigating possible causes of the stock's failure to recover as reflected in the observed population trend. Such an investigation is essential to conservation of this stock. In addition, as recognized in the DSEIS, it highly unlikely that subsistence hunters will be able to resume their traditional, culturally important use of Cook Inlet beluga whales unless actions are taken to reverse recent population trends.

Specific Comments

ES-1, Purpose and Need, 1st par. – The purpose of the proposed action is described as promoting the "recovery of this depleted stock of beluga whales, while allowing for a limited subsistence harvest by Alaska Natives." In keeping with the policies of the MMPA and the stipulations agreed to by the parties to the rulemaking, the stated purpose should be amended to read "…while allowing for a limited subsistence harvest by Alaska Natives when consistent with achieving the recovery goal of the Marine Mammal Protection Act." Corresponding changes should be made throughout the DSEIS.

ES-1, Purpose and Need, 2nd par. – The final sentence of this paragraph should be amended to indicate that sections 101(b) and 103(d) of the MMPA require that such regulations be adopted using formal rulemaking procedures, which in turn require that opportunity be provided for a formal hearing. Corresponding changes should be made throughout the DSEIS. Also, it should be clarified that the hearing was not "before" seven parties but "involved" seven parties.

ES-1, Purpose and Need, 3rd par. – The first sentence should be revised to clarify that the Administrative Law Judge presiding over the hearing issued a "recommended" decision, not a "final" decision. The reference in the second sentence should be to "section" 228.20(c), rather than "Part" 228.20(c).

ES-2, Alternative 1 – The Service, on the previous page, indicates that, in accordance with Public Laws 106-31 and 106-553, the taking of Cook Inlet beluga whales is not allowed unless authorized under a cooperative agreement. Throughout the DSEIS, the Service uses the shorthand that these agreements are required by Public Law 106-31. Technically, however, that provision lapsed on 1 October 2000. It is only through the amendment made by Public Law 106-553 that harvest limits remain applicable. This should be clarified here and elsewhere in the document. Also, because the two referenced public laws are quite lengthy, it would be helpful to cite the specific sections that apply to the hunting of Cook Inlet beluga whales (i.e., section 3002 of Public Law 106-31 and Appendix B, section 627 of Public Law 106-553).

ES-2, Alternative 2, 1st par. – This paragraph discusses the 95/25 criterion developed during the rulemaking. It then states that "when there is no growth or a decline in population occurs, the harvest must be reduced to zero in order to meet the 95/25 criteria." In fact, the harvest rules discussed under Alternative 2 would allow harvest under some conditions where the evidence indicates that the 95/25 criterion will not be met. The application of this criterion should be clarified. This criterion, as recommended by the Commission during the rulemaking and used in developing the potential biological removal (PBR) standard was to provide a 95 percent certainty of recovery within 100 years *and* a 95 percent certainty that the take will not delay recovery by more that 10 percent. The 95/25 criterion already backs off from the 95/10 standard in deference to providing greater opportunities for Native subsistence harvest. The Service should expand the discussion of the 95/25 criterion in the DSEIS to reflect these points and to clarify the role of the 100-year criterion in evaluating the alternatives.

ES-2, Alternative 2, 2nd par. – The word "proscribed" should be changed to "prescribed."

Page 1-1, 2nd par. – The first sentence of this paragraph should be revised to clarify that Congress made allowance for the continued hunting of Cook Inlet beluga whales because of the importance of such hunting to the traditional culture of Alaska Natives. However, under the applicable provisions, the Service has discretion not to allow such hunting or to impose limits when necessary to achieve the conservation goals of the MMPA.

Page 2-3, 1st par. – The word "resolved" in the final sentence of this paragraph should be changed to "addressed" to reflect that the Administrative Law Judge provides a recommended decision that is subject to further review and comment.

Page 2-4, last par. – As noted above, the 95/25 criterion will not be met if a harvest is allowed when there is no growth or a declining population. The statement in the last sentence in this paragraph that a harvest nevertheless should be allowed "to balance the goal of recovery with the need to provide reasonable opportunity for subsistence hunts by Alaska Natives" requires further discussion concerning what circumstances, if any, might outweigh the recovery goal of the MMPA.

Page 2-5, 1st par. – As noted elsewhere, the Administrative Law Judge issued a recommended decision that is subject to further review and adoption or revision by the Service. As such, the first sentence of this paragraph should be revised to indicate that recommended decision "would have" allowed for an interim harvest at the specified levels.

Pages 2-6 and 2-7 – This section sets forth the proposed decision rule under Alternative 2. Step B of the rule specifies that "NMFS will calculate the likely distribution of the growth rate from the previous 10 years." The Service should explain what confidence threshold is considered "likely" and how this will be "calculated."

As presented, criteria e and f seem to require a much lower probability threshold (25 percent) for determinations that the stock is experiencing a "high" growth rate than for determining that it is experiencing a "low" growth rate (75 percent). The selection of these values should be explained. Such an explanation also should be provided in the narrative describing these thresholds in the first paragraph on page 4-6.

Page 3-39, Table 3—The last line in the year column in this table is 2008. Presumably, this should be 2007.

Page 3-49, 1st par. – The final sentence in this paragraph uses the term "sea mammal" to describe hunting techniques used by the coastal Dena'ina in Cook Inlet. Is this term intended to mean something different than the term "marine mammal"? If not, use of the term "marine mammal" is preferable because it is a defined term under the MMPA. This comment also pertains to the use of the term "sea mammal" at the bottom of page 4-11 and top of page 4-12.

Page 4-9, Table 4-1 – This table ostensibly presents criteria for determining the impacts on beluga whales from different levels of hunting. However, these "criteria" are unclear about the situation where recovery within 100 years cannot be achieved with high probability. This should be explained. Also, the table does not provide confidence or certainty thresholds (unlike the 95/25 criterion, for example).

Pages 4-41 and 4-42, carry-over par. – This discussion indicates that the PVA model did not explore specific factors not related to subsistence harvests "because there is no direct evidence that any factors beside uncontrolled harvest have had population-level effects in the past." This statement is at odds with statements made elsewhere in the DSEIS that indicate that the decline observed in the Cook Inlet beluga whale population since taking by Alaska Native hunters has been regulated (i.e., since 1999) is likely attributable to factors other than hunting. Thus, it seems that there is direct evidence that some other factor or set of factors is having population-level effects. We just have not identified what those factors are or quantified their individual contributions to the observed population trend. The PVA model assumes no harvest past 2005, yet it predicts a 26 percent probability of extinction within 100 yrs. The harvest model does not track extinction frequency, but it does track the probability of decline. The two models should be better integrated.

Page 4-42, 1st full par. – The last sentence of this paragraph indicates that, if the Cook Inlet beluga whale is listed under the ESA, the Service will need to prepare a biological opinion on whether the proposed harvest would place the population in jeopardy of extinction. The Commission notes, however, that if the Service adopts a harvest regime that fully satisfies the stipulations agreed to by the parties, including the 95/25 criterion, then the risk of jeopardy should have been removed.

Page 4-43, 1st full par. – The last sentence in this paragraph states that "[a]t this time, harvest is the only action believed to be having a population level impact on the Cook Inlet belugas." As noted above, this statement seems to be at odds with statements made by the Service elsewhere that the observed decline over the past several years is likely attributable to some factor or set of factors other that subsistence hunting. It also seems to be at odds with the statement made in the last paragraph on this page, which indicates that there are a number of factors besides subsistence hunting that could be having important cumulative effects on the population through mortality, disturbance, habitat change, or reduced fecundity.

Appendix A – The information provided on the harvest model is not sufficient to duplicate the Service's analysis. The DSEIS reports the survey point estimates for 1999–2007 but not earlier. The DSEIS reports the survey estimate CVs for 1996–2003 but not earlier or later. Nevertheless, the omitted values are used in the modeling. In addition, the analysis is not up to date. As described, the modeling did not use the 2007 data for assessing likelihoods, although the 2007 data are graphed in Figure 3-8. Another problem is that the "100 year projections" described in the DSEIS do not project into the future 100 years from now but end in 2099. Also, the "no-harvest" option is evaluated assuming zero harvest after 1999, but harvests did in fact take place after 1999. The assertion that "it is not necessary to revise the model that was included in the ALJ ruling" neglects the fact that the harvest model is optimistic compared to the PVA model because it omits demographic and environmental stochasticity and small-population effects. Furthermore, the

assertion that the harvest alternatives would allow "harvest from increasing populations only" is not correct, because the harvest rules are driven by estimates that have defined probabilities for being wrong, depending on the quantity and quality of data.

Please contact me if you would like to discuss any of these comments.

Sincerely,

Timothy J. Ragen, Ph.D.
Executive Director