

**UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

**IN THE MATTER OF:**

PROPOSED REGULATION GOVERNING  
THE TAKING OF COOK INLET, ALASKA, BELUGA  
WHALES BY ALASKA NATIVES

**DOCKET NUMBER**

000922272-0272-01

**RECOMMENDED DECISION**

**Before:** Hon. Parlen L. McKenna  
Administrative Law Judge  
United States Coast Guard

**(I)  
PRELIMINARY STATEMENT**

The National Marine Fisheries Services (NMFS), of the United States Department of Commerce's National Oceanic & Atmospheric Administration (NOAA), initiated this formal rulemaking proceeding. The purpose of this rulemaking is to regulate the subsistence harvest of Cook Inlet beluga whales (*Delphinapterus leucas*) by Alaska Natives under the Marine Mammal Protection Act (MMPA), as amended and codified at 16 U.S.C. §§ 1361-1407. NMFS instituted this proceeding by publishing a notice of proposed rulemaking in the Federal Register on October 4, 2000. See Taking of Cook Inlet (CI), Alaska, Stock of Beluga Whales by Alaska Natives, 65 FR 59164-59170 (proposed October 4, 2000) (to be codified at 50 C.F.R. Part 216). The proposed rule's objective is to recover depleted stock of Cook Inlet beluga whales to its optimum sustainable population level while preserving the traditional subsistence use of the marine mammals by Alaska Natives to support their cultural, spiritual, social, economic and nutritional needs.

The proposed rule provides that:

(1) Subsistence harvest can only occur under an agreement between NMFS and an Alaska Native organization (ANO) pursuant to section 119 of the MMPA;

(2) Subsistence harvest shall be limited to no more than two strikes annually until the stock is no longer considered depleted under the MMPA;

(3) The sale of Cook Inlet beluga whale products shall be prohibited;

(4) All hunting for subsistence purposes shall occur after July 15 each year; and

(5) The harvest of newborn calves, or adult whales with maternally dependent calves shall be prohibited.

In accordance with the Administrative Procedure Act, 5 U.S.C. § 551-559, and the Reinstatement of Procedures for Hearings Conducted Pursuant to Section 103(d) of the MMPA, 65 FR 39560-39564 (published on June 27,2000) (to be codified at 50 C.F.R. Part 228), a public evidentiary hearing was held before the undersigned Judge in Anchorage, Alaska on December 5, 2000 through December 8, 2000. The following participants appeared at the hearing represented by either legal counsel or a designated non-attorney representative:

<b>Participant</b>	<b>Representative/Legal Counsel</b>
National Marine Fisheries Service (Proponent)	Thomas J. Meyer, Esq., NOAA General Counsel
Marine Mammal Commission (MMC)	Michael L. Gosliner, Esq., General Counsel, Marine Mammal Commission
Joel and Debra Blatchford	Pro Se
Alaska Oil and Gas Association (AOGA)	Judith M. Brady, Executive Director, Alaska Oil & Gas, Pro Se
Native Village of Tyonek	John M. Starkey, Esq.
Trustees for Alaska (TA)	Jack K. Sterne, Esq., Trustees for Alaska, Ocean Conservancy (formerly the Center for Marine Conservation)

<b>Participant</b>	<b>Representative/Legal Counsel</b>
Cook Inlet Treaty Tribes (CITT)	Lee Stephan <sup>1</sup>

The following exhibits were introduced and admitted into evidence at the hearing:

<b>Offered By</b>	<b>Exhibit</b>	<b>Description</b>
The parties in this matter	Joint 1	Stipulations of the Parties
ALJ	ALJ 1	Proposed Rule on Taking of the Cook Inlet, Alaska Stock of Beluga Whales by Alaska Natives, 65 Fed. Reg. 59164-59170 (published October 4, 2000)
	ALJ 2	Final Agenda on Taking of the Cook Inlet, Alaska Stock of Beluga Whales by Alaska Natives, 65 Fed. Reg. 75230-75232 (December 1, 2000)
NMFS	NMFS 1	Draft Environmental Impact Statement (DEIS)
	NMFS 2	Curriculum Vitae of Douglas P. DeMaster, Ph.D.
	NMFS 3	Declaration of Douglas P. DeMaster, Ph.D.
	NMFS 4	Responses to Determination of Issues
	NMFS 5	Declaration of Mr. P. Michael Payne
	NMFS 6	CITT Comments on Proposed Regulations dated Sept. 5, 2000
	NMFS 7	Cook Inlet Marine Mammal Council (CIMMC) Comments dated August 31, 2000
	NMFS 8	MMC Letters dated Jul. 31, 2000; Jan. 22, 1999; Jul. 23, 1999; and Dec. 21, 1999
	NMFS 9	NMFS Office of Protected Resources Letter dated Jul. 10, 2000
	NMFS 10	Co-Management Agreement
	NMFS 11	DEIS Comments
	NMFS 12	Field Notes of N. Murray & K. Bunch
Joel and Debra Blatchford	Blatchford 1	Anchorage Daily News article dated Sunday, Aug. 14, 1994
	Blatchford 2	Notice of Intent to Participated in Hearings and Direct Testimony of Joel Blatchford
	Blatchford 3	Direct Testimony of Debra Blatchford
	Blatchford 4	DEIS Comments
	Blatchford 5	Letter to Percy Blatchford dated May 26, 1999
	Blatchford 6	Rosita Worl article, "The North Slope Inupiat Whaling Complex"

<sup>1</sup> David A. Voluck of Landye, Bennett and Blumstein, LLP initially represented CITT in these proceedings.

<b>Offered By</b>	<b>Exhibit</b>	<b>Description</b>
Alaska Oil and Gas Association	AOGA 1	Reply to the National Marine Fisheries Service's Responses to Determination of Issues
	AOGA 2	Notice of Intent to Participate in Hearing and Direct Testimony of Judith Brady
	AOGA 3	Rebuttal Testimony of Judith M. Brady
Marine Mammal Commission	MMC 1	Reply to the National Marine Fisheries Service's Responses to Determination of Issues
	MMC 2	Notice of Intent to Participate in Hearing Letter dated Nov. 1, 2000
	MMC 3	Declaration of Daniel Goodman, Ph.D.
	MMC 4	Curriculum Vitae of Daniel Goodman, Ph.D
	MMC 5	Chart
	MMC 6	Proposed Decision Rules for Cook Inlet Beluga Subsistence Harvest
Native Village of Tyonek	Tyonek 1	Answers to NMFS Responses to Determination of Issues
	Tyonek 2	Declaration of Peter Merryman
	Tyonek 3	Articles titled, "Shem Pete's Alaska: The Territory of the Upper Cook Inlet Dena'ia;" "Beluga Hunting in the Tyonek Area;" "Quyushi Uqu Ch'el'ani: Beluga Hunting;" and "The Upper Inlet Tania: Patterns of Leadership among Alaskan Athabaskan People, 1741-1918"
	Tyonek 4	Rebuttal Document
Trustees for Alaska	TA 1	Answer to NMFS Responses to Determination of Issues
	TA 2	Declaration of Trustees
	TA 3	D1-H4 Exhibits
	TA 4	Letters dated Jun. 8, 1998; Oct. 29, 1999; and Nov. 30, 1999 <sup>2</sup>
Cook Inlet Treaty Tribes	Calcote 1	Affidavit of Delice Calcote, Secretary of Cook Inlet Marine Mammal Council
	CITT 1	Responses to Determination of Issues

The documentary evidence and testimony of expert witnesses conclusively demonstrate that there exists an appreciable degree of uncertainty concerning the population dynamics of the Cook Inlet beluga whales. Therefore, at the conclusion of the hearing, the parties were ordered to convene a scientific review committee to establish a scientifically acceptable subsistence harvest quota that would take into account the uncertain parameters surrounding the Cook Inlet beluga whales.

Based on the findings of the scientific review committee, the parties, except for the Trustees for Alaska, entered into the following stipulation:

Six strikes over the next four years (2001-2004) to be allocated by NMFS through co-management agreements. Four of the strikes, not to exceed one per year, are to be allocated to the Native Village of Tyonek. The remaining two strikes will be allocated to other Cook Inlet subsistence hunters, with no more than one strike being allocated during any single year.

The parties further stipulated that the presiding Judge retain jurisdiction over the rulemaking pending the gathering of data by NMFS, in consultation with the other parties to this proceeding, so that a regime can be developed for establishing appropriate harvest levels for 2005 and subsequent years. The parties also agreed that NMFS would submit a final recommendation on the long-term harvest regime for 2005 and subsequent years to the judge and all parties. NMFS agreed to submit the long-term harvest regime to the judge and all parties no later than March 15, 2004. See (Joint Stipulations I). Based on these stipulations and the evidence adduced at the hearing, it is recommended that the proposed regulation be amended and modified to promote additional scientific research and population data collection and analysis of the Cook Inlet beluga whale stock and their habitat.<sup>3</sup>

## (II) PROCEDURAL HISTORY

The MMPA authorizes NMFS, acting on behalf of the Secretary of Commerce, to regulate Alaska Native subsistence harvest of depleted marine mammal stock after regulations specific to the depleted stock are issued and an opportunity for notice and hearing on the record has been provided.<sup>4</sup> 16 U.S.C. § 1371(b)(3). As preliminary step toward regulating the Alaska

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<sup>2</sup> This exhibit was originally marked as TA-3 at the hearing. The corrected exhibit number is TA-4.

<sup>3</sup> The parties originally agreed that the final recommendation on the long-term harvest regime would be submitted by NMFS on March 13, 2004. However, since that date falls on a Saturday, the final recommendation shall be submitted no later than the next business day which is Monday, March 15, 2004.

<sup>4</sup> In May 1999, Congress enacted a temporary moratorium on Alaska Native subsistence harvesting. Pub. L. 106-31, § 3022, 113 Stat 57, 1000 (May 21, 1999). The temporary moratorium prohibited Alaska Native subsistence

\* \* \* Footnote continued on next page \* \* \*

Native subsistence harvest, NMFS issued a Final Rule on May 31, 2000 (65 FR 34590) designating the Cook Inlet beluga whales as depleted within the meaning of Section 3(1) of the MMPA, as amended and codified at 16 U.S.C. § 1362(1), and the underlying regulations codified at 50 C.F.R. Part 216. However, NMFS determined that listing the Cook Inlet beluga whales as “endangered” or “threatened” under the Endangered Species Act was not warranted based on the best scientific and commercial data available. See Regulations Governing the Taking and Importing of Marine Mammals; Endangered and Threatened Fish and Wildlife; Cook Inlet Beluga Whales, 65 FR 38778-38790 (June 22, 2000).<sup>5</sup>

On October 4, 2000 (65 FR 59164), NMFS issued proposed regulations that would limit subsistence harvest of the Cook Inlet beluga whales by Alaska Natives. The proposed regulations read as follows:

**PART 216-REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS**

1. The authority citation for part 216 continues to read as follows:

**Authority:** 16 U.S.C. 1361, *et seq.*, unless otherwise noted.

2. In § 216.23, paragraph (f) is added to read as follows:

**§ 216.23 Native exceptions.**

\* \* \* \* \*

(f) *Cook Inlet beluga whales.*

(1) *Cooperative Agreement.* Notwithstanding the provisions of 16 U.S.C. 1371(b) or paragraph (a) of this section, any taking of a Cook Inlet beluga whale by an Alaska Native must be authorized under a cooperative agreement between the National Marine Fisheries Service and an Alaska Native organization(s). The Cook Inlet beluga

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harvesting of Cook Inlet beluga whales in the absence of a cooperative/co-management agreement between NMFS and an Alaska Native organization. *Id.* The moratorium became permanent in December 2000. Pub. L. 106-553, §1(a)(2), 114 Stat. 2762 (Dec. 21, 2000).

<sup>5</sup> NMFS’ determination to list the Cook Inlet beluga whales as depleted under the MMPA, but not as “endangered” or “threatened” under the Endangered Species Act (ESA) was upheld by the United States District Court for the District of Columbia. Cook Inlet Beluga Whale v. Daley, 156 F. Supp. 2d 16 (D.C. Cir. 2001).

whale stock includes all beluga whales occurring in waters of the Gulf of Alaska north of 58 degrees North latitude including, but not limited to, Cook Inlet, Kamishak Bay, Chinitna Bay, Tuxedni Bay, Prince William Sound, Yakutat Bay, Shelikof Strait, and off Kodiak Island and freshwater tributaries to these waters.

(2) *Limitations on the Number of Cook Inlet Beluga Whales Taken for Subsistence.* Notwithstanding the provisions of 16 U.S.C. 1371(b) or paragraph (a) of this section, the number of whales that may be taken (killed or struck and lost) each year from the Cook Inlet, Alaska, stock of beluga whales for subsistence purposes shall be limited to no more than two (2) strikes annually until the stock is no longer designated as depleted.

(3) *Prohibition on the Sale of Cook Inlet Beluga Whale.* Notwithstanding the provisions of 16 U.S.C. 1371(b) or paragraph (b) of this section, the sale of products or foodstuffs from Cook Inlet beluga whales is prohibited.

(4) *Season.* Notwithstanding the provisions of 16 U.S.C. 1371(b) or paragraph (a) of this section, all hunting shall only occur after July 15 of each year.

(5) *Beluga calves or adult belugas with calves.* Notwithstanding the provisions of 16 U.S.C. 1371(b) or paragraph (a) of this section, the taking of beluga whale newborn calves, or adult whales with older, maternally dependent calves is prohibited.

In accordance with Section 103(d) of the MMPA, interested persons were provided an opportunity to file an initial notice of intent to participate in the hearing scheduled in Anchorage, Alaska on December 5, 2000, and to submit written testimony together with other documentary exhibits. Interested persons were also provided an opportunity to submit written comments on the proposed rule and Draft Environmental Impact Statement (DEIS) prepared by NMFS in accordance with the National Environmental Policy Act, as amended and codified in 42 U.S.C. §§ 4321-4370e.

The DEIS assesses various environmental, biological, and man-induced factors that presently, or potentially, impact the Cook Inlet beluga whales and concludes that over-harvest of beluga whales in Cook Inlet for subsistence purpose is the primary factor responsible for the demonstrated decline of the stock. The DEIS also evaluates the impacts of the following six (6) different subsistence harvest strategies:

- Alternative 1: zero harvest until the stock recovers to its Maximum Net Productivity Level (MNPL), which corresponds with the lower limit of the stock's OSP
- Alternative 2: one strike annually until the stock recovers to its MNPL
- Alternative 3: one strike annually for eight consecutive years, after which time the annual harvest would increase to two strikes until the stock recovers to its MNPL
- Preferred Alternative 4: two strikes annually until the stock recovered to its MNPL
- Alternative 5: a fixed-percentage harvest dependent on the estimated size of the population
- Alternative 6: No Action

After examining all of the aforementioned harvest strategies, NMFS proposed adoption of Preferred Alternative 4. (*NMFS Exhibit 1-DEIS*).

Seven (7) notices of intent to participate in the hearing were received from the public. One notice, however, was subsequently withdrawn and, by Order dated November 30, 2000, direct testimony of one witness was reconstituted as comments to the DEIS. Twelve (12) letters were also received from the public during the comment period on the DEIS. While a majority of commentators support NMFS' proposal to restrict the Alaska Native subsistence harvest of Cook Inlet beluga whales, a significant number of commentators - - some of whom are in support of the subsistence harvest limitation and some of whom are against the harvest limitation - - state that the DEIS does not fully and adequately consider the cumulative impacts of various human activities on beluga whales and their habitat. (*See NMFS Exhibit 11*). Succinctly stated, these commentators advocate the need for more scientific analysis and population data in order to create the most effective and appropriate regulatory harvest regime. (*Id.*). The point is well taken. A careful review of the entire record, including documentary evidence and witness testimony, shows that the scientific data available regarding the population dynamics of the Cook Inlet beluga whales is inconclusive.



**(III)**  
**ISSUES OF FACT AND LAW**

On December 1, 2000 (65 FR 75230), pursuant to 50 C.F.R. § 228.11(a) and (b), the issues of fact and law involved in this proceeding were published in the Federal Register as follows:

A. Population Estimates

1. What numbers are appropriate to use for:
  - a. Carrying capacity (K)
  - b. Current Population size ( $N_{2000}$ )
  - c. Intrinsic rate of growth ( $R_{max}$ )
  - d. The lower bound of the optimum sustainable population level (MNPL) relative to the carrying capacity
2. Whether 2000 Survey Data will be available. If so, why aren't they being used?
3. Whether the recovery times projected by the National Marine Fisheries Service (NMFS) under different harvest regimes are appropriate?
  - a. Whether recovery factor used by the NMFS is too conservative? If so, what is the appropriate recovery factor?
  - b. Whether there is a consistent formula for estimating the recovery time?
  - c. Have past formulas for population been developed? If so, what are the formulas and why weren't they adopted?
4. What factors, other than Native harvest of Cook Inlet beluga whales, possibly contributed to the observed declines or slower than projected potential recovery of the stock?
  - a. Whether the estimate of annual removals by Alaska Native subsistence hunters in Cook Inlet is accurate? Is the Cook Inlet Marine Mammal Council's report on 1998 harvest levels available?\*
  - b. Whether the NMFS has adequately accounted for risks to the population from orca predation, strandings, oil spills, and other stochastic events in calculating potential harvest removals and recovery times?
  - c. Is there an Inlet-based decline in the availability of food or prey for the Beluga? If so, in what way has this affected the decline and potential recovery of the population?

5. Whether a more flexible model that accounts for uncertainty in key population parameters is available? If so, why wasn't it used?
6. What resources are available for monitoring beluga population and harvest?
  - a. Will the beluga population be evaluated on an annual basis?
  - b. Whether the regulations should contain a provision for altering the number of Native harvest strikes if new, valid information changes the analysis of Cook Inlet beluga population?
7. Should a more flexible harvest regime be adopted? If so, what should it be?

#### B. Co-Management and Enforcement

1. What is the definition of the term "Alaska Native Organization (ANO)?"
  - a. How is an ANO recognized?
  - b. Are there any ANOs in Cook Inlet with area-wide tribal authority to enforce laws against all members of the area tribes and enter into agreements on behalf of said tribes? How many exist and who are they? Which ANO can enter into co-management agreement with NMFS?
2. What mechanisms are available to enforce the Native harvest limitation and prohibition on the sale of products and foodstuff from Cook Inlet beluga whales?
  - a. Who has authority to enforce the proposed regulations, if adopted? Will enforcement authority be shared between NMFS and the ANO(s)?
  - b. What effect, if any, does the recent ruling in Alaska v. Native Village of Venetie Tribal Government, 522 U.S. 520 (1998) have on a tribal government's ability to enforce tribal laws on individuals?
  - c. How will the strikes under the proposed regulation be allocated? Who will monitor the harvest of Cook Inlet beluga whales to ensure that the season is concluded as soon as the second strike has been made? How will the hunters and tribes be notified of season's closure.
3. Are there methods to increase efficiency?
4. Will there be sufficient funding for enforcement and prosecution?

#### C. Method and Means of Hunting

1. Will illegal takings be counted against the two-strike Native harvest limitation?
2. Will the NMFS be able to stop Native harvest of Cook Inlet beluga whales under emergency circumstances of rule making? Will there be a legal mechanism to

stop Native harvest of Cook Inlet beluga whales in the event of unrelated mortality that would affect the population recovery?

3. Should juvenile whales be taken instead of mature adults if it is shown to enhance chances of population recovery?
4. Should the proposed July 15 annual commencement date for Native harvest of beluga whales be moved forward to July 1 in view of deteriorating whether conditions?

#### D. Sale of Cook Inlet beluga whale products

1. Whether the term “sale” should include barter and other types of quasi-commercial transactions?
2. Should attempts to sell Cook Inlet beluga whale products and/or foodstuff be deemed a violation? Should the purchase and attempts to purchase Cook Inlet beluga whale products or foodstuff be deemed a violation?
3. For enforcement purposes, should the restriction on the sale of Cook Inlet beluga whale products and/or foodstuff be expanded to prohibit the sale of products and/or foodstuff from other beluga whale stock?
4. Should restrictions be in place for all Cook Inlet beluga whale products, or just edible portions?

#### E. Cultural Interests

1. Are there ways to encourage full utilization of those belugas taken pursuant to the proposed regulations?
2. Is there sufficient emphasis on the importance of Native subsistence harvest in terms of balancing in favor of permitting the proposed harvest?

A majority of the issues of law and fact have been resolved by party stipulation and the parties have agreed to defer a determination on remaining issues until such time that more reliable scientific and commercial data regarding the population dynamics of the Cook Inlet beluga whales becomes available.

**(IV)**  
**FINDINGS OF FACT**

1. The Cook Inlet beluga whale is a genetically distinct and geographically isolated marine mammal stock occurring in the Gulf of Alaska. (*NMFS Exhibit 1-DEIS*, at 15; *Tr. 147-148, 218-219*).
2. In the late 1970s and early 1980s, up to 1,300 beluga whales inhabited Cook Inlet. However, the exact number is unknown. (*NMFS Exhibit 3- Declaration of Dr. Douglas P. DeMaster*, at 5-6; *NMFS Exhibit 5- Declaration of Mr. P. Michael Payne*, at 3-4; *Tr. 35, 433*).
3. Between 1994 and 1998, the Cook Inlet beluga whale population experienced a drastic decline falling from an abundance estimate of 653 whales in 1994 to 347 whales in 1998. (*NMFS Exhibit 1-DEIS*, 1-3; *NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 2; *Tr. 34-36, 39, 153*).
4. By 1999, an estimated population between 240 and 500 beluga whales inhabited Cook Inlet. (*NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 2, *Tr. 37-39, 618-619*).
5. Alaska Native subsistence harvesting of Cook Inlet beluga whales was the major significant factor contributing to the depletion of the marine mammal population. (*NMFS Exhibit 1-DEIS*).
6. While Alaska Native subsistence harvest levels of beluga whales in Cook Inlet historically has been largely unreported, data compiled by NMFS and the Cook Inlet Marine Mammal Council (CIMMC) in 1995 through 1997 indicates that an estimated average between 75 and 100 Cook Inlet beluga whales were annually harvested for subsistence purposes. (*NMFS Exhibit 1 - DEIS*, at 40-41; *NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 2-4, 6; *NMFS Exhibit 8; MMC Exhibit 3-Declaration of Dr. Daniel Goodman*, at 5; *Tr. 153-155*).
7. Although Alaska Native subsistence hunting is the major significant factor contributing to the decline of the Cook Inlet beluga whale, there may be additional factors significantly

attributing to the decline. (*NMFS Exhibit 1-DEIS*; *NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 3; *NMFS Exhibit 6-CITT Comments on Proposed Regulations* dated Sept. 5, 2000; *Blatchford Exhibit 4*; *MMC Exhibit 3-Dr. Goodman's Declaration*, at 5; *Calcote 1*; *Tr. 96-102*; *132-136*, *138-144*, *183-184*, *207-210*, *268-272*, *341-352*, *432-434*, *450-451*, *457-458*, *466*, *749*, *759-760*).

8. Reliably determining the carrying capacity of the Cook Inlet beluga whale population is essential in establishing the most appropriate Alaska Native subsistence harvest regime that promotes recovery of the marine mammal to its optimum sustainable population (OSP) level while preserving the Alaska Native's traditional subsistence use to support their cultural, spiritual, social, economic and nutritional needs. (*NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 3; *Tr. 35-205*; *MMC Exhibit 3-Dr. Goodman's Declaration*).
9. NMFS defines OSP as 60% of carrying capacity. (*NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 3; *MMC Exhibit 3-Dr. Goodman's Declaration*, at 6; *AOGA 3*; *Tr. 35-36*).
10. Carrying capacity represents the long-term equilibrium average population supportable in the ecosystem if mammals were not removed for purposes of harvesting or incidental to commercial fishing. (*NMFS Exhibit 1-DEIS*, at 30; *Tr. 35*).
11. Because historical abundance estimates of Cook Inlet beluga whales prior to 1994 were often incomplete and involving non-systematic counts of concentrations of the marine mammal observed in the river and along the upper Inlet, the information necessary to reliably estimate the carrying capacity of Cook Inlet beluga whales is insufficient and the reliability of the data is questionable. (*NMFS Exhibit 1-DEIS*, at 17; *NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 4-5; *Tr. 34*, *135*; *Tyonek Exhibit 1*; *MMC Exhibit 1 and 3*; *AOGA 1*; *Joint Stipulations 1*).
12. In order to determine the carrying capacity of the Cook Inlet beluga whale population with any reliable degree of certainty, a number of years of annual abundance estimates must be

collected. However, based on the testimony of Dr. DeMaster, the parties have agreed to collect abundance data for a period of six (6) years to see whether the population is recovering above the scientifically predicted trajectory. (*NMFS Exhibit 4; MMC Exhibits 5 and 6; Joint Exhibit 1; Tr. 115-118, 128-132, 139, 180-183, 195-196, 631-636, 709*).

13. According to the most current abundance estimate, conducted in 2000, there are approximately 435 Cook Inlet beluga whales. In 1999, the abundance estimate was 357 whales. To determine whether the number of Cook Inlet beluga whales is increasing, the best strategy is to monitor the population closely and look at the scientifically predicted trajectory. See Doug O’Harra, “Count sees no Decline in Belugas,” Anchorage Daily News, January 19, 2001; see also (*Tr. 139*).
14. NMFS’ current estimates of abundance are conservative. The actual number of beluga whales in Cook Inlet may vary by approximately 60% in either direction from NMFS’ abundance estimates. Therefore, based on the estimate derived for 1999 - - for example - - there may be between 200 to 500 Cook Inlet beluga whales. (*MMC Exhibit 3-Dr. Goodman’s Declaration, at 3-4; Tr. 37, 79*).
15. Several correction factors have been used since 1994 in developing current abundance estimates to account for: (1) animals missed by an observer even though the marine mammal was at the surface of water; (2) animals below the surface of the water using, among other things, information from radio tagging data; and (3) estimates by observers of the number of marine mammals seen in a group. The correction factor currently used by NMFS has not been peer reviewed. (*AOGA 2; Tr. 71-72, 167-175, 621-625*).
16. The intrinsic rate of growth ( $R_{\max}$ ) for Cook Inlet beluga whales is unknown because life history, mortality and harvest data is insufficient. However, using population data and information from cetacean populations similar in size to the Cook Inlet beluga whales, 4% - -

amounting to approximately 10 to 12 marine mammals being added to the population through reproduction - - appears to be a reasonable default value of  $R_{\max}$ . In order to reliably determine  $R_{\max}$  for Cook Inlet beluga whales, the population must be observed over a longer period of time. (*NMFS Exhibit 1-DEIS*, at 30; *NMFS Exhibit 4; Tyonek Exhibit 1; MMC Exhibit 1 and 3; Joint Stipulations 1; Tr. 41-43, 85, 93-96, 98, 118-119*).

17. The maximum net productivity level (MNPL) of Cook Inlet beluga whales hinges on carrying capacity. MNPL is defined as the lower bound of the OSP relative to carrying capacity taking into account additions to the population as a result of reproduction and less any population losses due to mortality. (*NMFS Exhibit 1-DEIS*, at 30; *NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 8; *MMC Exhibit 3-Dr. Goodman's Declaration*, at 6; *Tr. 62-67*).
18. Scientific data and research establishes that the MNPL for marine mammals is between 50 and 85%. However, because of the lack of reliable data and information, where the peak of production curve occurs for marine mammals is unknown. (*NMFS Exhibit 4; Tyonek Exhibit 1; MMC Exhibit 1; Joint Stipulations 1; Tr. 63-67*).
19. The reliability of the expected recovery time of the Cook Inlet beluga whale population and MNPL is directly linked to the stocks carrying capacity and growth rate, which are unknown. (*NMFS Exhibit 4; MMC Exhibit 3-Dr. Goodman's Declaration*, at 10-11; *Tr. 59-60, 245, 627-630*).
20. The marine mammal management model adopted by NMFS and used in developing the proposed subsistence harvest regime for the Cook Inlet beluga whale population that was published in the Federal Register on October 4, 2000 does not adequately take into account the uncertainty that exists concerning the Cook Inlet beluga whale population. (*TA Exhibit 1-3; MMC Exhibit 1 and 3; Tr. 107-115, 137-144, 616, 682*).

21. None of the six (6) Alternative subsistence harvest strategies considered by NMFS in the DEIS adequately takes into account the uncertainty that exists concerning the population dynamics of the Cook Inlet beluga whale and its habitat. (*Tr. 225-234, 616*).
22. Under the preferred Alternative 4 subsistence harvest strategy adopted by NMFS in the DEIS and published in the proposed rule in October 2000, a fixed harvest of two strikes annually would allow the Cook Inlet beluga whale to recover in 25 years and thus extend the recovery time by only three years when compared to Alternative 1 advocating no subsistence harvest. However, the preferred Alternative 4 subsistence harvest strategy does not account for the uncertainties surrounding the dynamics of the Cook Inlet beluga whale and its habitat. (*NMFS Exhibit 1-DEIS, at 6-8, 29-38; Tr. 43, 108-109, 233-234*).
23. Of the six Alternative subsistence harvest strategies considered by NMFS in the DEIS, Alternative 5, which would allow a fixed percentage of Cook Inlet whales harvested based on the annual recruitment level, is the only alternative that provides any degree of flexibility. The major problem with Alternative 5 is the estimated recovery time is unreasonably long: 55 years. Therefore, Alternative 5 is not a viable harvest strategy. (*Tr. 231-232, 262-263*).
24. A better alternative subsistence harvest strategy, which was not considered by NMFS in the DEIS, is to establish an interim harvest regime in which a total of six strikes of Cook Inlet beluga whales would be allocated pursuant to a co-management agreement over the next four years. Pursuant to the parties stipulations, four of the strikes, not to exceed one per year, would be allocated to the Native Village of Tyonek and the remaining two strikes would be allocated to another Cook Inlet Alaska Native subsistence hunter (ANO) with no more than one strike being allocated during every other year. During the interim harvest period, the Cook Inlet whale population would be monitored and evaluated to determine whether the beluga whales are recovering above the scientifically predicted trajectory. Following the



interim harvest period, the collected abundance data would be used to establish a long-term harvest regime for subsequent years. (*MMC Exhibit 5 and 6; Joint Exhibit 1; Tr. 91, 115-118, 128-132, 139, 180-183, 195-196, 631-636, 709*).

25. Because of a moratorium on Alaska Native subsistence harvesting of beluga whales since 1999, the number of harvested Cook Inlet beluga whales has been significantly reduced. In 1999 and 2000 no beluga whales were harvested and only one beluga whale was harvested in 2001 pursuant to a co-management agreement with a ANO (Tyonek). Thus, population estimates have increased appreciable since 1999. Based on the current trend, by the year 2005, NMFS should be able to scientifically determine whether the Cook Inlet beluga whale stock is recovering in a manner consistent with the scientifically predicted trajectory. See Doug O’Harra, “Count sees no Decline in Belugas,” Anchorage Daily News, January 19, 2001; see also (*NMFS Exhibit 3- Dr. DeMaster’s Declaration, at 6-7; Tr. 36, 91, 115-118, 128-132, 139, 180-183, 195-196, 635-636*).
26. The interim subsistence harvest strategy agreed to by the parties is conservative and will not result in a significant retardation of the recovery of the marine mammal population. (*NMFS Exhibit 3-Dr. DeMaster’s Declaration, at 7-9; Tyonek Exhibit 1; AOGA 2; Joint Stipulations 1; Tr.82-83, 86-87, 124, 155-156, 199, 201-202*).
27. Unusual mortalities, illegal harvesting, and/or stochastic or catastrophic events have the potential to threaten the recovery of the Cook Inlet beluga whale population. Thus, it is essential that an emergency provision be incorporated into the proposed rule to respond to those events that potentially threaten the recovery of the Cook Inlet beluga whale population. (*NMFS Exhibit 3-DeMaster’s Declaration, at 8-9; Joint Stipulations 1; Tr. 43-47, 138, 275-279, 797-799*).

28. Periodically monitoring the Cook Inlet beluga whale population, developing a conservation plan, implementing protective measures, and developing viable enforcement mechanisms are essential to the recovery effort. (*NMFS Exhibit 4; Tyonek Exhibit 1; MMC Exhibit 1; Joint Stipulations 1; Tr. 46-48, 103-106, 189-191, 194, 275-279, 320-333, 338-340, 367, 404, 414-420, 434-435, 449-450, 695-697;*).
29. Co-management agreements are the best way to promote efficient Alaska Native subsistence harvesting of Cook Inlet beluga whales and thereby reducing or otherwise minimizing the amount of whales struck and lost and preventing “wasteful takings” of Cook Inlet beluga whales. Co-management agreements are also the best method for selecting which tribal or Eskimo group(s) should be permitted to engage in Alaska Native subsistence harvesting in a particular year and allocating the strikes. (*Tyonek 1; AOGA 2; Joint Stipulations 1; Tr. 229-230, 236-243, 273-275, 285, 291-300, 362-366, 435-436, 439, 750*).

**(V)**  
**ULTIMATE FINDINGS OF FACT AND CONCLUSIONS OF LAW**

1. The Cook Inlet beluga whale stock is a “depleted” marine mammal population within the meaning of the MMPA. 16 U.S.C. § 1362(1).
2. The Alaskan Natives’ subsistence harvest of Cook Inlet beluga whales is subject to regulation in accordance with 16 U.S.C. § 1371(b).
3. The proposed regulation published in the Federal Register on October 4, 2000 should be amended and modified in such a way as to promote additional scientific research and data collection and analysis of the Cook Inlet beluga whales and their habitat so that the most scientifically acceptable subsistence harvest regime can be established.
4. The best scientific evidence available and the parties stipulations show that since an appreciable degree of scientific uncertainty exists concerning the population dynamics of the Cook Inlet beluga whales an interim subsistence harvest regime should be established

over the next four years (2001-2004) which provides for the allocation of a total of six strikes of Cook Inlet beluga whales pursuant to co-management agreements and also provides for the collection and analysis of scientific data which can be used to establish a more scientifically acceptable harvest regime for future years.

5. Based on the parties' stipulations, over the next four years (2001-2004) four strikes, not to exceed one per year, will be allocated to the Native Village of Tyonek pursuant to a co-management agreement. The remaining two strikes, with no more than one strike being allocated during every other year, will be allocated to another Alaska Native subsistence hunter group. NMFS will use its best efforts to qualify such a group as an ANO and enter into a co-management agreement with the United States Government so that such a group can reap the benefits of the second strike this summer. Should NMFS be unable to complete these prerequisites, it shall so report to the presiding judge as soon as practicable. Any such delay shall result in the carryover of such strike until an ANO is qualified and a co-management agreement concluded.
6. The best scientific evidence available demonstrates that the interim harvest regime agreed to by the parties will not significantly disadvantage the Cook Inlet beluga whale population.
7. Based on the parties' stipulations and the best scientific evidence available, the Judge should retain jurisdiction over the rulemaking pending data collection and developments by NMFS in consultation with the other parties to this proceeding of a regime for determining allowable subsistence harvest levels for 2005 and subsequent years.
8. Based on the parties' stipulations, NMFS should submit a final recommendation on the long-term subsistence harvest regime for 2005 and subsequent years to the judge and the other parties no later than Monday, March 15, 2004.

**(VI)**  
**DECISION**

The MMPA was enacted in 1972 to protect marine mammals from extinction or depletion resulting from man's activities.<sup>6</sup> 16 U.S.C. § 1361(1). Congress intended to prevent marine mammals from diminishing below their optimum sustainable population level thereby ceasing to be a significant functioning element in the ecosystem. 16 U.S.C. § 1361(2). As a result, Congress imposed a broad moratorium on the taking of marine mammals.<sup>7</sup> 16 U.S.C. § 1371(b).

While the primary objective of the MMPA is to protect marine mammals, Congress recognized that Alaskan Natives required special attention because the Natives have historically depended on traditional hunting of marine mammals for their sustenance and as a means of preserving social unity. S. Report 93-307 (1973), *reprinted in* 1973 USCCAN 2989, 2993. Congress did not intend to eliminate or otherwise destroy the Alaskan Natives cultural heritage, livelihood and economy in the process of enacting the MMPA. H.R. Rep. 92-707 (1971), *reprinted in* 1972 USCAAN 4144; see also *Sea Mammal Protection Hearings in Alaska Before the Senate Commerce Committee*, 118 Cong. Rec. 17550 (1972); *Marine Mammal Protection Act of 1972*, 118 Cong. Rec. at 25258-25267 (Remarks of Sen. Ted Stevens); *The Marine Mammal Protection Act-Alaskans Express their Opinions*, 118 Cong. Rec. 13597-13603 (Extensions of Remarks of Rep. Nick Begich). On the contrary, Congress sought a balance. Congress established an exemption for Alaska Natives, which authorizes the taking of marine

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<sup>6</sup> “The term ‘marine mammal’ means any mammal which (a) is morphologically adapted to the marine environment (including sea otters and members of the orders Sirenia, Pinnipedia and Cetacea), or (b) primarily inhabits the marine environment (such as the polar bear); and . . . includes any part of any such marine mammal, including its raw, dressed, or dyed fur or skin.” 16 U.S.C. § 1362(6).

<sup>7</sup> Under the MMPA, “the term ‘moratorium’ means a complete cessation of the taking of marine mammals and a complete ban on the importation into the United States of marine mammals and marine mammal products, except as provided [under the MMPA].” 16 U.S.C. § 1362(8). “The term ‘take’ means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal.” 16 U.S.C. § 1362(13).

mammals for subsistence purposes or for making traditional Native handicraft and clothing so long as the take is not conducted in a wasteful manner. 16 U.S.C. § 1371(b).

In creating the exemption, Congress intended to preserve the Alaskan Natives traditional subsistence customs. S. Rep. No. 707 (1971), *reprinted in* 1972 U.S.C.C.A.N. 4144, 4151-4152. This protection was nonetheless tempered by the Secretary of Commerce's ("Secretary") authority to restrict the Alaskan Natives subsistence harvest whenever a species or stock of marine mammal is designated as "depleted" and after regulations specific to the depleted species or stock are issued following public notice and a hearing. 16 U.S.C. § 1371(b). However, Congress also ensured that a proper balance was struck between the competing policy considerations of protecting marine mammals and preserving Alaskan Natives subsistence harvest rights by requiring the Secretary to lift any regulations governing subsistence harvesting once the species or stock of marine mammal are no longer depleted. *Id.*

Title 16 U.S.C. § 1371(b), governing exemptions for Alaskan natives, reads as follows:

Except as provided in section 1379 of this title, the provisions of this chapter shall not apply with respect to the taking of any marine mammal by any Indian, Aleut, or Eskimo who resides in Alaska and who dwells on the coast of the North Pacific Ocean or the Arctic Ocean if such taking-

- (1) is for subsistence purposes; or
- (2) is done for purposes of creating and selling authentic native articles of handicrafts and clothing: *Provided*, That only authentic native articles of handicrafts and clothing may be sold in interstate commerce: *And provided further*, That any edible portion of marine mammals may be sold in native villages and towns in Alaska or for native consumption. For the purposes of this subsection, the term "authentic native articles of handicrafts and clothing" means items composed wholly or in some significant respect of natural materials, and which are produced, decorated, or fashioned in the exercise of traditional native handicrafts without the use of pantographs, multiple carvers, or other mass copying devices. Traditional native handicrafts include, but are not limited to weaving, carving, stitching, sewing, lacing, beading, drawing, and painting; and
- (3) in each case, is not accomplished in a wasteful manner.

Notwithstanding the preceding provisions of this subsection, **when . . . the Secretary determines any species or stock of marine mammal subject to taking by Indians, Aleuts, or Eskimos to be depleted, he may prescribe regulations upon the taking of such marine mammals by any Indians, Aleut, or Eskimo described in this subsection.** Such regulations may be established with reference to species or stocks, geographical description of the area included, the season for taking, or any other factors related to the reason for establishing such regulations and consistent with the purposes of this chapter. **Such regulations shall be prescribed after notice and hearing required by section 1373 of this title and shall be removed as soon as the Secretary determines that the need for their imposition has disappeared.** In promulgating any regulation or making any assessment pursuant to a hearing or proceeding under this subsection or finding regarding unmitigable adverse impacts under subsection (a)(5) that affects stocks or persons to which this subsection applies, **the Secretary shall be responsible for demonstrating that such regulation, assessment, determination, or finding is supported by substantial evidence on the basis of the record as a whole.** The preceding sentence shall only be applicable in an action brought by one or more Alaska Natives organizations representing persons to which this subsection applies. (Emphasis added).

In these formal rulemaking proceedings, regulations on the taking of marine mammals must be based on the “best scientific evidence available” and the burden is on NMFS to ensure that the taking will not disadvantage those species or stock of marine mammals. 16 U.S.C. § 1373(a). When the “best scientific evidence available” standard was created, Congress recognized that there is inadequate knowledge of the ecology and population dynamics of marine mammals and of the factors that affect their ability to successfully reproduce. 16 U.S.C. § 1361(3); H.R. Rep. 92-707, *reprinted in* 1972 USCAAN 4144, 4148. 118 Cong. Rec. at 25273 and 25253. Congress envisioned the possibility that, in a given situation, there would be a lack of scientific information. Federation of Japan Salmon Fisheries Cooperative Association v. Balderidge, 679 F. Supp. 37, 46 (D. DC 1987). In such instances, the “best scientific evidence available” standard is satisfied “[i]f the weight of authority suggests a certain figure is most likely.” Friends of Animals, Inc. v. Federation of Japan Salmon Fisheries Cooperative Association, 1982 U.S. Dist. LEXIS 18171, at 13 (D. DC 1982). In other words, the regulations must be supported by reliable, probative and substantial evidence. 5 U.S.C. § 556(d); see also Steadman v. SEC, 450 U.S. 91, 100-103 (1981) (holding that 5 U.S.C. § 556(d) establishes a

preponderance of the evidence standard of proof); Concrete Pipe & Products v. Constr. Laborers Pension Trust, 508 U.S. 602, 622 (1993) (holding that the “preponderance of the evidence standard of proof requires a party to show that the existence of a fact is more probable than its non-existence”).

With this in mind, Congress requires the Secretary, in consultation with the Marine Mammal Commission, to discover and make available critical information concerning the species or stock of marine mammals subject to regulation. 16 U.S.C. § 1373. In formulating regulations, the Secretary

shall give full consideration to all factors which may affect the extent to which such animals may be taken or imported, including but not limited to the effect of such regulations on-

- (1) existing and future levels of marine mammal species and population stocks;
- (2) existing international treaty and agreement obligations of the United States;
- (3) the marine ecosystem and related environmental considerations;
- (4) the conservation, development and utilization of fishery resources; and
- (5) the economic and technological feasibility of implementation.

16 U.S.C. § 1373(b). Moreover, prior to or concurrent with the publication of the notice of proposed rulemaking in the Federal Register, the Secretary is required to publish:

- (1) a statement of the estimated existing levels of the species and population stocks of the marine mammal concerned;
- (2) a statement of the expected impact of the proposed regulations on the optimum sustainable population of such species or population stock;
- (3) a statement describing the evidence before the secretary upon which he proposes to base such regulations; and
- (4) any studies made by or for the Secretary of an recommendations made by or for the Secretary or the Marine Mammal Commission which relate to the establishment of such regulations.

16 U.S.C. § 1373(d). Furthermore, when issuing regulations pursuant to section 1373, the onus is on NMFS to keep in mind the competing concerns of Congress, i.e., protecting marine mammals and preserving Alaskan Natives subsistence harvesting. 16 U.S.C. § 1373(a).<sup>8</sup>

In this proceeding to regulate the Alaskan Natives' subsistence harvest of Cook Inlet beluga whales, every variable that went into NMFS' proposed regulation was subject to a significant degree of scientific uncertainty. The issues of law and fact identified by the parties in the December 1, 2000 Federal Register notice (65 FR 75230) and addressed at the hearing involved: (A) population estimates; (B) co-management and enforcement; (C) method and means of hunting; (D) sale of Cook Inlet beluga whale products; and (E) cultural interests.

Since the data and information regarding the population dynamics of the Cook Inlet beluga whale stock was so speculative, the parties, based in part on information provided by the scientific review committee, have resolved all of the issues via stipulation and agree that the proposed regulation should be amended in such away as to promote additional scientific research and population data collection and analysis of the Cook Inlet whale stock and their habitat. The parties stipulated to the following:

- (1) Subsistence harvest can only occur under a cooperative agreement between NMFS and an Alaskan Native Organization(s);
- (2) During the years 2001-2004, unless subject to emergency suspension, a total of six (6) strikes of Cook Inlet beluga whales is to be allocated for subsistence harvest through co-management agreement(s). Four of the strikes, not to exceed one per year, are to be allocated to the Native Village Tyonek and the two remaining strikes

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<sup>8</sup> Section 1373(a) provides in pertinent part:

The Secretary, on the basis of the best scientific evidence available and in consultation with the Marine Mammal Commission, shall prescribe such regulations with respect to the taking and importing of animals from each species or marine mammal . . . as he deems necessary and appropriate to insure that such taking

\* \* \* Footnote continued on next page \* \* \*



- will be allocated pursuant to a co-management agreement(s) with other Cook Inlet community hunters, with no more than one strike being allocated during every other year;
- (3) Taking of beluga whales for subsistence harvest shall be suspended if unusual mortalities occur in any given year and the suspension shall be in effect until the population has recovered;
  - (4) Authentic Native articles of handicrafts and clothing made from non-edible by-products of whales taken in accordance with the regulations may be sold in interstate commerce; but, the sale of any other part or product, including food stuffs, from Cook Inlet beluga whales is prohibited, except customary and traditional subsistence practices of barter and sharing of Cook Inlet beluga parts or products is not prohibited;
  - (5) All hunting for subsistence purposes shall occur no earlier than July 1 each year;
  - (6) The taking of a maternally dependent calf, or an adult whale accompanied by a maternally dependent calf is prohibited; and
  - (7) The presiding administrative law judge should retain jurisdiction over the rulemaking pending developments by NMFS, in consultation with the other parties to this proceeding, of a regime for determining allowable harvest levels for 2005 and subsequent years.

The only party that did not join in the stipulation is the Trustees for Alaska. The Trustees raise two objections. First, the Trustees argue that the taking of a maternally dependant calf or an adult whale accompanied by a dependent calf should be counted as two strikes, rather than

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will not be to the disadvantage of those species and population stocks and **will be consistent with the purposes and policies set forth in section 1361 of this title.** (emphasis added).

one to better reflect the biological reality that two whales were taken from the population. Second, the Trustees object to moving the hunting season forward to July 1. The Trustees argue that there is no evidence that deteriorating weather conditions support moving the hunting season to July 1, and that the July 15 date originally proposed by NMFS affords greater protection for breeding female whales. The Trustees comments are well thought out and might be something that the parties want to adopt for the post 2004 timeframe. However, during this short information gathering period there is more than ample protection for the Cook Inlet beluga whale protection. Finally, the facts adduced at the hearing clearly support the parties' stipulations.

A. Population Estimates

(1) What numbers are appropriate to use?

Pursuant to 16 U.S.C. § 1373, NMFS evaluated various population data and empirical evidence to determine the Cook Inlet beluga whales' carrying capacity, current population size, intrinsic rate of growth, and lower bound of the optimum sustainable population level (MNPL) relative to carrying capacity. The parties agree that the reliability of all of the figures is at issue and a significant degree of scientific uncertainty exists. Thus, without the weight of authority suggesting a certain figure is most likely, the undersigned is unable to recommend that the Secretary adopt any one figure until further scientific data is collected. This is especially true in light of the parties' stipulations.

(a) Carrying Capacity (K)

With respect to the population estimates, all of the scientific experts, including NMFS' own scientific expert - - Dr. DeMaster's, expressed reservations about the reliability of the data. Based on the evidence adduced at the hearing, the estimated carrying capacity of the Cook Inlet beluga whales could range anywhere from 653 whales to 2,000 whales. (*NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 5-6; *Tr. 33-35, 51-57, 17-198*).

Dr. DeMaster's admitted that none of the four independent estimates of carrying capacity considered by NMFS were fully reliable. According to Dr. DeMaster's, all of the estimates are imprecise and severely negatively biased. (*NMFS Exhibit 3-Dr. DeMaster's Declaration*, at 6; *Tr. 33-35, 54-61, 146-165, 200-201*). For instance, the reliability of the Calkins' study, which NMFS maintains provides a reasonable estimate of carrying capacity is, at best, questionable. The field notes from the aerial survey indicates that only 441 whales and not the reported 479 whales were observed in Cook Inlet in 1979. In addition, it came to light at the hearing that critical areas were missed by Calkins during the aerial survey, which may account for an unknown underestimate of the total number of beluga whales. Moreover, the variance in Calkins' study cannot be replicated because he did not use techniques that would allow one to properly estimate the variance. (*NMFS Exhibit 4 and 12; AOGA 1; Tr. 54-57, 146-150, 159-165, 197-198, 619-620, 625-626*).

Without the ability to reliably ascertain the carrying capacity of the Cook Inlet beluga whales, a single point estimate cannot be selected for carrying capacity and, thus, a single value cannot be selected as the OSP. The OSP is defined as "the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element." 16 U.S.C. § 1362(8). The Secretary is required under 16 U.S.C. § 1373 to make a finding concerning the OSP when implementing regulations on the taking of marine mammals. Kokechick Fishermen's Assoc. v. Commerce, 839 F.2d 795, 801 (D.C. Cir. 1988), *cert. denied* 488 U.S. 1004 (1989).

Based on the evidence adduced at the hearing, NMFS would need a number of years of annual abundance estimates to determine the carrying capacity of Cook Inlet beluga whales with any reliable degree of certainty. (*NMFS Exhibit 4; Tr. 132*). Instead of relying on a single point

estimate for carrying capacity, MMC recommends adoption of a range incorporating the entire distribution to adequately characterize the scientific uncertainty that exists concerning the population appraisal of the Cook Inlet beluga whales. (*MMC Exhibit 1; Tr. 627-628*). The single point estimates relied upon by NMFS in developing the proposed regulation simply does not take into account such scientific uncertainty. (*TA Exhibit 1; MMC Exhibit 1, 3, and 5; Tr. 107-115, 137-144, 616, 682*). MMC further recommends that NMFS undertake a Monte Carlo analysis, which is a standard, widely used, and recognized model that accounts for uncertainty through a predictive calculation. (*MMC Exhibit 3; TR. 616-617, 671-672, 683-684, 708*). During the hearing, NMFS admitted that in developing the proposed Alaskan natives harvest regime they did not have the benefits of MMC's expert witness', analyses. Accordingly, the parties have agreed to defer the issue concerning carrying capacity to a later date. This would provide NMFS and MMC a reasonable opportunity to work together, as contemplated by 16 U.S.C. § 1373.

(b) Current Population Size

The parties also agreed to defer a ruling on the current population size. According to the most current abundant estimate, conducted in 2000, there are approximately 435 Cook Inlet beluga whales. See Doug O'Harra, "Count sees no Decline in Belugas," Anchorage Daily News, January 19, 2001. In 1999, the abundance estimate was 357. (*NMFS Exhibit 3; Tr. 36, 115*). The evidence shows that NMFS' current abundance estimates are conservative and may vary by 60% in either direction from the true number of beluga whales living in Cook Inlet. For instance, based on the 1999 abundance estimate, there may be as few as 200 and as much as 500 beluga whales in Cook Inlet. (*MMC Exhibit 3; Tr. 37, 79*). Since 1994, NMFS has used several correction factors for computing abundance estimate and the current correction developed by Rob Hobbs is in the process of being peer reviewed. (*AOGA 2; Tr. 71-72, 167-175, 621-625*).

The parties' decision to defer this issue to a later date provides NMFS with an opportunity to test and validate the scientific methodology of its correction factors through the peer review process. It also provides NMFS with an opportunity to observe the Cook Inlet beluga whales and evaluate whether the stock is recovering in a manner consistent with the scientifically predicted trajectory and verify whether subsistence harvest was the sole cause of the depletion of the Cook Inlet beluga whales.

(c) Intrinsic Rate of Growth

In practice, the intrinsic rate of growth, also referred to the maximum net reproduction rate or  $R_{max}$ , is estimated by evaluating life history and mortality data. It is also estimated from a time series of abundance and harvest data. (*NMFS Exhibit 4*). NMFS admits, and the parties recognize, that the intrinsic rate of growth for Cook Inlet beluga whales is not empirically established. (*NMFS Exhibit 1 and 4; Tyonek Exhibit 1; MMC Exhibit 1 and 3; Tr. 41-43*). Lacking sufficient abundance estimates, life history and mortality data, NMFS determined that 4% - - amounting to 10 to 12 marine mammals being added to the population on an annual basis through reproduction - - is a reasonable estimate for cetacean populations similar in size to the Cook Inlet beluga whales. (*Id.*; *Tr. 93-96, 98, 118-119*). The parties' decision to defer a ruling on this issue provides an opportunity for NMFS to gather more information, which allows the agency to better determine the intrinsic rate of growth for the Cook Inlet beluga whales.

(d) The lower bound of the optimum sustainable population level (MNPL) relative to the carrying capacity

The maximum net productivity level or OSP of the Cook Inlet beluga whales hinges on its carrying capacity. MNPL is defined as the lower bound of the OSP relative to carrying capacity taking into account additions to the population as a result of reproduction and less any population losses due to mortality. (*NMFS Exhibit 1 and 3; MMC Exhibit 3; Tr. 62-67*).

Scientific data and research establishes that the MNPL for marine mammals is between 50 and

85%. However, since there is a lack of reliable data and information, where the production peak occurs for marine mammals is generally unknown. (*NMFS Exhibit 4; Tyonek Exhibit 1; MMC Exhibit 1; Tr. 63-67*). In its “Response to Determination of Issues,” NMFS admits that reliably estimating MNPL from population data requires estimates of the population growth rate over a range of abundance levels or a long time series of abundance estimates. (*NMFS Exhibit 4*).

NMFS arbitrarily adopts 60% for OSP. (*NMFS Exhibit 3-DeMaster’s Declaration, at 3; MMC Exhibit 3-Dr. Goodman’s Declaration, at 6; AOGA 3; Tr. 35-36*). Dr. DeMasters testified that 60% was a reasonable estimate, but admitted that there was “just no data” to determine the reliability of this figure. (*Tr. 63-67*). Therefore, the parties have stipulated that this issue should be deferred to a latter date so that reliable estimates can be made based upon empirical data.

(2) Whether the 2000 survey data will be available. If so, why aren’t they being used?

The parties have stipulated that this issue should be eliminated. The issue is now moot since NMFS has officially released the 2000 survey data.

(3) Whether the recovery times projected by the NMFS under different harvest regimes are appropriate?

Under the proposed Alaskan Natives subsistence harvest regime, NMFS estimates a 13% delay in recovery time for the Cook Inlet beluga whale and expects the whales to recover to the lower level of OSP by 2025 if 2 whales are annually harvested assuming the carrying capacity is 1,300 whales. (*NMFS Exhibit 1-DEIS, at 30; NMFS Exhibit 3-Dr. DeMaster’s Declaration, at 7-8; NMFS Exhibit 4-NMFS’ Responses to Determination of Issues, at 3-4; Tr. 43, 108,233-247*). Since the estimated recovery times was established using the variables which have already been found to be subject to an appreciable degree of scientific uncertainty, the parties agreed to defer a ruling on NMFS projected recovery times. According to the testimony of NMFS’ expert witness and based on population data collected on Cook Inlet beluga whales since 1999, within 4 to 6 years or by no earlier than 2004 there should be enough information and data available to

determine whether the whales are recovering in a manner consistent with the scientifically predicted trajectory, which will justify adjustment of the Alaskan Natives subsistence harvest quota. (*Tr.115-118, 180-183, 195-196, 635-636*).

- (4) What factors, other than Native harvest of Cook Inlet beluga whales, possibly contributing to the observed declines or slower than projected potential recovery of the stock?

The parties have agreed to strike all matters relating to this issue from the proceeding. It has been established by a preponderance of reliable and credible evidence that Alaskan Natives subsistence harvesting of Cook Inlet beluga whales significantly contributed to the observed decline of the marine mammal population.

- (5) Whether a more flexible model that accounts for uncertainty in key population parameters is available? If so, why wasn't it used?

During the hearing, Marine Mammal Commission proposed using the Monte Carlo in evaluating the Cook Inlet beluga whale population. (*TA Exhibit 2 and 3; MMC Exhibit 3-Dr. Goodman's Declaration, at 9-13; Tr. 152,616-617, 671-672, 683-684, 708*). However, the parties agreed to defer resolution of this issue to afford NMFS, MMC, and the scientific review committee an opportunity to select the most appropriate and scientifically acceptable marine mammal management model.

- (6) What resources are available for monitoring beluga population and harvest?

The parties have stipulated that the resources available for monitoring the beluga population and harvest include, but are not limited to: (i) NMFS regional and Anchorage field staff; (ii) scientists from the Alaska Fisheries Science Center in Seattle, Washington; (iii) Alaska Natives organizations party co-management agreements and enforcement officials; (iv) existing programs for tracking belugas; (v) genetic-based studies; and (vi) annual population surveys and funding of Native co-management agreements. (*Joint Stipulations 1*). NMFS further agreed to continue to identify new areas of study and seek appropriate funding. *Id.*

(a) Will the beluga population be evaluated on an annual basis?

The parties have stipulated that the beluga population will be evaluated on an annual basis. *Id.* Pursuant to sections 103(f) and 117(c) of the MMPA, NMFS is required to conduct marine mammal stock assessments and report the current status of the marine mammal to the public in the Federal Register and to Congress. 16 U.S.C. §§ 1373(f) and 1386(c). Thus, this issue is moot.

(b) Whether the regulations should contain a provision for altering the number of Native harvest strikes if new, valid information changes the analysis of the Cook Inlet beluga population

Based on the testimony of Dr. DeMaster, the parties have agreed to defer this issue. (*Joint Stipulations 1*). To include a provision that would alter the number of strikes allocated for Alaskan Native subsistence harvest based on the evidence presented at the hearing would be speculative at this juncture. This issue is best resolved at a later date once more information and data becomes available.

(7) Should a more flexible harvest regime adopted? If so, what should it be

By party stipulation, this issue has been deferred. *Id.* The information that will be collected and analyzed during the interim harvest period should be used by NMFS to develop the most appropriate Alaskan Natives harvest regime.

#### B. Co-Management and Enforcement

The parties have left three issues concerning co-management and enforcement for judicial resolution. The issues involve: (1) allocation of strikes; (2) monitoring the harvest to ensure that the season is concluded as soon as the second strike has been made; and (3) notifying Alaskan Native hunters and tribes of season closure. The parties have agreed to strike all other remaining issues from the proceeding. Those issues will be addressed in the co-management agreement.



With respect to the allocation of strikes, the parties have agreed that during the interim Alaskan Natives subsistence harvest period, four of the six strikes of Cook Inlet beluga whales shall be allocated to Tyonek. (*Joint Stipulations 1*). However, the regulation does not have any criteria on how the remaining strikes should be allocated to an ANO. Based on the evidence adduced at the hearing, the best method to allocate the two remaining strikes is through co-management agreement, which has previously been successful. (*NMFS Exhibit 4 and 10; Tr. 13-16,291-317*).

Furthermore, the best method for monitoring the harvest of Cook Inlet beluga whales to ensure that the season is concluded as soon as the second strike has been made is through co-management agreement. (*NMFS Exhibit 10*). Based on such agreement, the ANO is required to notify NMFS 48 hours before subsistence harvesting so that enforcement agents would be available to observe and monitor the harvest. (*NMFS Exhibit 10; Tr. 320-322, 365*). In an effort to further monitor Alaskan Natives subsistence harvest, NMFS issued an interim final rule that was published in the Federal Register on May 24, 1999 (64 FR 27925), requiring Alaskan Natives to provide NMFS with the lower left jawbone of harvested Cook Inlet beluga whales and provide a report on the circumstances of the harvest. (*NMFS Exhibit 4 and 10; Tr. 47*).

Last, with respect to notifying the Alaskan Native hunters and tribes of seasonal closure once the two strikes have been made, the evidence establishes that NMFS will continue to publish and relate information concerning the Alaskan Natives subsistence harvesting and seasonal closure and will set out the manner of additional notification in the co-management agreement. (*NMFS Exhibit 4*).

### C. Method and Means of Hunting

- (1) Will Illegal takings be counted against the two-strike Native harvest limitation?

The parties have agreed that illegal strikes will not be counted against the Alaskan Natives subsistence harvest limitation, but believe that this issue should be addressed in the co-management agreement. (*Joint Stipulations 1*).

- (2) Will the NMFS be able to stop Native harvest of Cook Inlet beluga whales under emergency circumstances of rule making?

An emergency cessation provision has been added to the recommended proposed rule. (*Joint Stipulations 1*). In deciding to recommend the emergency cessation provision, the parties recognize that unusual mortalities, illegal harvesting, and/or stochastic or catastrophic events have the potential to threaten the recovery of the Cook Inlet beluga whales. (*NMFS Exhibit 3-DeMaster's Declaration*, at 8-9; *Joint Stipulations 1*; *Tr. 43-47, 138, 275-279, 797-799*). Therefore, the parties agreed that the Alaskan Native subsistence harvest will be temporarily suspended if unusual mortalities, including illegal takes, exceed six whales per year. (*Joint Stipulations 1*).

- (3) Should juvenile whales be taken instead of mature adult whales if it is show to enhance the chances of population recovery?

During the hearing, Dr. DeMaster's testified that if juvenile whales age 4 years and younger are harvested, the recovery time increases. (*Tr. 103*). As such, the parties have agreed that juvenile whales should not be harvested. (*Joint Stipulations 1*).

- (4) Should the proposed July 15 annual commencement date for Native harvest of beluga whales be moved forward to July 1 in view of deteriorating whether conditions?

The parties, except the Trustees, have agreed that the date for the commencement of the Alaskan Natives harvest of Cook Inlet beluga whales should be moved forward to July 1. (*Joint Stipulations 1*). Furthermore, it has already been decided that the Trustee's objection to the

moving of the date of the subsistence harvest season is best entertained once more scientific and commercial data becomes available.

D. Sale of Cook Inlet Beluga Whale Products

- (1) Whether the term “sale” should include barter and other types of quasi-commercial transactions?

Based on the evidence adduced at the hearing, the parties agree that the term “sale” should not include barter and other types of quasi-commercial transactions. (*Joint Stipulations I*).

- (2) Should the attempts to sell Cook Inlet beluga whale products and/or foodstuff be deemed a violation?

The parties agree that sale of Cook Inlet beluga whale products and/or foodstuff should be deemed a violation. (*Joint Stipulations I*). However, the parties agree that authentic Native articles of handicrafts and clothing made from non-edible by-products are exempt. *Id.*

- (3) For enforcement purposes, should the restriction on the sale of Cook Inlet beluga whale products and/or foodstuff be expanded to prohibit the sale of products and or foodstuff from other beluga whale stocks?

The parties have agreed to defer ruling on this issue. *Id.*

- (4) Should the restrictions be in place for all beluga whale products, or just edible portions?

The parties agree that the restriction should be in place for all beluga whale parts and products, except to the extent that the products are used for authentic Native articles of handicrafts and clothing. (*Joint Stipulations I*).

E. Cultural Interests

- (1) Are there ways to encourage full utilization of those belugas taken pursuant to the proposed regulations?

The parties agree that this issue is best resolved in the co-management agreement. (*Joint Stipulations I*).

- (2) Is there sufficient emphasis on the importance of Native subsistence harvest in terms of balancing in favor of permitting the proposed harvest?

The parties agree and NMFS recognizes that subsistence harvesting of beluga whales during the recovery phase is essential to the Alaskan Natives way of life. (*Joint Stipulations I*).

**(VII)**  
**CONCLUSION**

After careful review of the entire record of this proceeding and in light of the parties joint stipulations, it is recommended that the proposed regulation published in the Federal Register on October 4, 2000 should be modified and amended to reflect the agreement of the parties and to promote additional scientific research and data collection on the population dynamics of the Cook Inlet beluga whale stock and their habitat.

WHEREFORE,

**(VIII)**  
**RECOMMENDATION**

**IT IS HEREBY RECOMMENDED THAT** the proposed regulations should be amended to read as follows:

**PART 216-REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS**

1. The authority citation for part 216 continues to read as follows:

**Authority:** 16 U.S.C. 1361, *et seq.*, unless otherwise noted.

2. In § 216.23, paragraph (f) is added to read as follows:

**§ 216.23 Native exceptions.**

\* \* \* \* \*

(f) *Cook Inlet beluga whales.*

- (1) Co-Management Agreement(s). Subject to the provisions of 16 U.S.C. 1371(b) and any further limitations set forth in this paragraph or other paragraphs of this section (section 216.23), any taking of a cook inlet beluga whale by an Alaska Native must be authorized under a cooperative agreement for the co-management of subsistence uses (hereinafter in this paragraph “co-

management agreement”) between the National Marine Fisheries Service and an Alaska Native Organization(s).

(2) *Limitations on the Number of Cook Inlet Beluga Whales Taken for Subsistence.*

- (A) Taking during 2001-2004. Subject to the suspension provision of clause (c), a total of six (6) strikes, which could result in up to six landings, is to be allocated through the co-management agreement(s). Four of the strikes, not to exceed one per year, are allocated to the Native Village of Tyonek. The remaining two strikes will be allocated over the time period through a co-management agreement to other Cook Inlet community hunters, with no more than one strike being allocated during every other year.
- (B) Taking during 2005 and subsequent years. [Reserved].
- (C) Emergency Provision for Suspension of Takings during 2001-2004. Takings of beluga whales authorized under this paragraph will be suspended if unusual mortalities occur as follows:
  - (i) “Unusual mortalities” will include all documented human-caused mortality (including illegal takings and net entanglements), and all documented mortality resulting from unknown or natural causes that occur above normal levels, considered for the purposes of this provision to be 12 per year.
  - (ii) Calculating level of unusual mortalities. The level of unusual mortalities shall be calculated by documenting mortality for the calendar year and subtracting 12. The sum of this result and the carry over of the previous year is the level of unusual mortalities.
  - (iii) Emergency Suspension. If in any year the unusual mortalities exceed six (6) whales per year, no strikes will be allowed in subsequent years until the population has recovered from those mortalities.
  - (iv) Recovery. Recovery from unusual mortalities will be based on a yearly forward projection of the recruitment of six (6) whales per year so that the carryover to the following year will be the total unusual mortalities less six (6) whales.

(3) *Sale of Cook Inlet Beluga Whale Parts and Products.* Authentic Native articles of handicrafts and clothing made from non-edible by-products of whales taken in accordance with the provisions of this paragraph may be sold in interstate commerce.

The sale of any other part or product, including food stuffs, from Cook Inlet beluga whales is prohibited, provided that nothing herein shall be interpreted to prohibit or restrict customary and traditional subsistence practices of barter and sharing of cook inlet beluga parts and products.

(4) *Season.* All takings of beluga whales authorized under this paragraph shall occur no earlier than July 1 of each year.

(5) *Beluga Whale Calves or Adult Belugas Whale with Calves.* The taking of a maternally dependent calf, or an adult whale accompanied by a maternally dependent calf is prohibited. Pursuant to Stipulation of the parties the undersigned hereby retains jurisdiction of this matter.




**HON. PARLEN L. MCKENNA**  
Administrative Law Judge  
United States Coast Guard

Done and dated this 29 day of March 2002

## Certificate of Service

I hereby certify that I have this day served the foregoing Recommended Decision by Federal Express to:

Assistant Administrator  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910



**CINDY J. ROBERSON**  
Legal Assistant to the  
Hon. Parlen L. McKenna

Done and dated this 29 day of March 2002.