

MEMORANDUM

TO: Council, AP and SSC Members

FROM: Clarence G. Pautzke
Executive Director



DATE: April 19, 1991

SUBJECT: Marine Mammals

ACTION REQUIRED

- (a) Review NMFS-proposed amendments to the Marine Mammal Protection Act.
- (b) Review Draft Recovery Plan for Steller Sea Lions.
- (c) Report on Section 7 Consultations.

BACKGROUND

Amendments to MMPA

NMFS is developing a regime to govern the incidental taking of marine mammals in commercial fisheries after October 1, 1993, when the current five-year agreement, developed through amendment to the Marine Mammal Protection Act in 1988, will expire. The Marine Mammal Commission provided their recommendations to NMFS last summer. A full report was in your September 1990 notebooks.

NMFS has drafted their proposed amendments and held Preliminary work sessions with industry and agency representatives in Seattle on February 19 and in Anchorage on February 22. The proposed regime is outlined in Item C-7(a) and Charles Karnella, NMFS - Washington, D.C., will be here to lead us through the proposed changes. The comment period on the draft amendments will run 120 days, through late June. Then the agency will complete their recommended plan, which must be submitted to Congress by January 1, 1992.

Recovery Plan for Steller Sea Lions

On November 26, 1990, NMFS listed the Steller sea lion as threatened under the Endangered Species Act of 1973. The rule implemented protective measures including a ban on the discharge of firearms around sea lions, buffer zones around listed rookeries, and an incidental take quota of 675 animals in commercial fishing operations.

The Steller Sea Lion Recovery Team has completed a draft recovery plan, dated February 15, 1991, and comments are due Friday, April 29. The plan is important, but quite lengthy, so I've provided it in full in your supplemental file. Item C-7(b) outlines the recovery portion of the document and Steve Pennoyer has volunteered to walk us through it.

Section 7 Consultations

The listing of Steller sea lions as threatened triggered the need for Section 7 consultations under the Endangered Species Act to determine whether fisheries off Alaska are likely to jeopardize the survival of endangered or threatened species. Although the Steller sea lion listing prompted the consultation, NMFS determined that it would address all endangered and threatened species in the plan areas including blue, bowhead, fin, gray, humpback, sei and sperm whales. NMFS is prepared to report on the results of their consultations. These are particularly important in regards to setting the final pollock TAC in the Gulf of Alaska.

**PROPOSED REGIME TO GOVERN INTERACTIONS BETWEEN
MARINE MAMMALS AND COMMERCIAL FISHING OPERATIONS**

I. BACKGROUND - MMPA Requirements

A. Marine Mammal Commission Guidelines

To NMFS by February 1, 1990

Scientific rational for takings

Principles of wildlife management

Guidelines should include

- Status and trends of Stocks
- Abundance and Net Recruitment
- Confidence in knowledge of stocks
- Likely effects to stocks

B. NMFS Suggested Regime

For review by February 1, 1991

To Congress by January 1, 1992

Suggested regime should include

- Scientific guidelines for taking
- Arrangements for consultations
 - Federal agencies
 - State agencies
 - Councils
- Regulations and legislation

II. NMFS PROPOSAL

A. Proposal Objectives

Conserve marine mammal stocks

Authorize incidental takes

Minimize adverse effects on fishing

B. Issues

1. Scope of proposal
2. OSP
3. Monitoring stocks
4. Determining Allowable Biological Removals (ABR)
5. ABR process

6. Zero mortality
7. Depleted stocks
8. ESA conflicts
9. Allocating takes
10. Fishery quotas
11. Intentional takes
12. MMPA authorization
13. Categories
14. Monitoring takes
15. Enforcing quotas
16. Native Americans
17. User fees
18. Starting date

C. NMFS Proposal Content

1. Scope of Proposal

All commercial fishing in U.S. except ETP tuna purse seine
Marine mammal stocks that interact
Other activities may be affected
 Subsistence uses
 Public display
 Scientific research

2. Optimum sustainable population

Goal for all marine mammal stocks
Need 10-20 years for many stocks

3. Monitoring stocks

Long term program
 Stock determination
 Abundance
 Trends
 Status

4. Determining Allowable Biological Removals (ABR)

Includes removals from all sources

ABR based on

- a. Minimum population estimate (MPE)
- b. Maximum net productivity (MNP)
- c. Safety factor (SF)

$$ABR = MPE \times MNP \times SF$$

- a. Minimum population estimate (MPE)

Use best available estimate

Minimum count

L95 of survey estimate

- b. Maximum net productivity (MNP)

Use estimate if available

If estimate not available use

2% for cetaceans & manatees

6% for pinnipeds & sea otters

- c. Safety factor (SF)

Based on status with respect to K

Less than 1/3 K SF = 0.1

Between 1/3 K SF = 0.5

Greater than 2/3 K SF = 0.9

5. ABR Process

Assessments every 1 - 3 years

NMFS drafts assessment report

Scientific peer group reviews report

NMFS revises report as appropriate

Report given to public for review

Report revised by NMFS

Revised report reviewed by peer group

NMFS issues final report

Assessment Report

Description of management stocks

Estimates of minimum abundance

Estimates of maximum net production

Status with respect to OSP
Any needed restrictions

6. Zero mortality goal

Evaluate fisheries

Reduce mortality

Develop new gear

Restrictions on gear, area, season

Reduce Quotas

Performance standards

7. Depleted stocks

Conservation/recovery plans required

Removal level established in plan

Plan would address potential impacts

8. Endangered Species Act

Amend incidental take provisions

Section 7 for fisheries

Section 10 for high seas and EEZ

9. Take Allocation

Total allocation must not be greater than ABR

Set each year for all user groups

Annually for all groups based on

Need

Historic take

Ability to control

Other factors

Allocated to: Subsistence uses

Uncontrolled mortalities

Commercial fishing operations

Scientific research

Public display

10. Quotas for fisheries

Fisheries with incidental removals

Recommended by regional boards

Regional board composition:

NMFS, USF&WS, MMC, Councils, States,
Interstate Commissions, Native Americans

Criteria

NMFS can modify recommendations

NMFS establishes quotas

Quotas cannot exceed allocation

NMFS can reserve part of allocation

NMFS can make quota adjustments

11. Intentional taking

a. Lethal takes

Lethal takes generally prohibited

Exception for personal safety

Lethal takes can be authorized

Fishermen can request

Must demonstrate need

Takes must fit under quota

NMFS can monitor fishery

b. Non-lethal takes

Most are by harassment

Non-lethal take by regulation

Must be necessary to protect gear, catch
or personal safety

No significant adverse effects

12. MMPA authorization

One MMPA authorization required

To fish

To take marine mammals

Some authorized by registering

Others authorized by regulation

One registration per vessel

13. **Categories of fisheries**
 - Two categories
 - Registration required
 - Fisheries likely to interact
 - Fisheries with adverse effects
 - Registration not required
 - Fisheries not likely to interact
 - Fisheries without adverse effects

14. **Monitoring take**
 - Monitoring program for all fisheries
 - NMFS determines monitoring needs
 - Observers on any vessel
 - Reports may be required

15. **Enforcing quotas**
 - Quotas must be monitored
 - Monitoring to predict reaching quota
 - Actions to prevent exceeding quotas
 - Gear; Season; Area restrictions
 - Closing fisheries
 - Increased monitoring

16. **Native Americans**
 - Indicate whether provisions apply

17. **User fees**
 - Standard registration fee
 - Fee to supplement monitoring

18. **Implementation date**
 - Two years from passage

COMPARISON OF ALTERNATIVES FOR CALCULATING ABRs FOR SELECTED MARINE MAMMAL STOCKS

Species/Stock	Minimum Abundance Estimate	MMPA (Pre-1988)	Interim Exemption	NBC	NMFS	Estimated Annual Removal
Harbor Porpoise Gulf of Maine	3,500	?	*	35	7	800 (600)
Bottlenose Dolphin Mid-Atlantic	560	0	*	0	5	<42 (<41)
Bottlenose Dolphin East Gulf of Mexico	7,265	?	*	72	130	<86 (<50)
Humpback Whale Gulf of Maine Canada	5,505	0	0	27	55	<10 (>1)
California Sea Lion CA, OR, WA	67,000	0	*	335	2,010	<1,000 (<1,000)
Steller Sea Lion	44,800	0	1,350	0	268	<300 (<65)
Northern Fur Seal Eastern Bering Sea	871,000	0	50	4,355	17,420	11,500 (<15)
Harbor Seal WA, OR Coast	12,390	0	*	123	371	<400 (<400)
Walrus North Pacific	233,828	11,691	*	11,691	10,522	<15,000 (<20)
Gray Whale North Pacific	19,737	0	0	98	354	<200 (<10)

TECHNICAL DRAFT RECOVERY PLAN--FEBRUARY 15, 1991

D. Stepdown Outline

1. Identify habitat requirements and protect areas of special biological significance
 11. Identify current and historical use areas
 111. Map and describe rookeries and major haulouts
 112. Map and describe feeding areas
 12. Determine seasonal use patterns
 13. Document effects of disturbance caused by human activities
 14. Prepare guidelines and regulations to control potentially disruptive activities
 15. Identify and designate "Critical Habitat" areas
2. Identify management stocks
 21. Conduct visual marking/tagging studies
 211. Tag and brand pups on selected rookeries
 212. Monitor rookeries for occurrence of marked animals
 22. Determine if biological parameters indicate different stocks of sea lions
 23. Compile and analyze data
3. Monitor status and trend of sea lions
 31. Develop statistically valid survey procedures
 32. Conduct Alaska statewide survey every year
 321. Conduct aerial survey of adults and juveniles at all rookeries and major haulouts
 322. Conduct pup counts at selected rookeries
 33. Conduct annual surveys of pups and non-pups at rookeries in California and Oregon
 34. Conduct range-wide survey every 5 years
 341. Conduct aerial survey of adults and juveniles at all rookeries and major haulouts

TECHNICAL DRAFT RECOVERY PLAN--FEBRUARY 15, 1991

- 342. Conduct pup counts at selected rookeries
- 4. Monitor health, condition, and vital parameters
 - 41. Examine and sample dead animals from rookeries, incidental take, subsistence harvests, and those located by stranding networks and carcass surveys
 - 42. Collect and sample animals
 - 43. Develop methods for non-lethal sampling
 - 431. Develop and evaluate capture techniques
 - 432. Develop indices of condition
 - 44. Conduct studies on rookeries
 - 441. Determine sex and age class of animals on shore
 - 442. Determine rates of pup production and mortality
 - 443. Tag and brand pups and adult females
 - 444. Monitor status of tagged animals
 - 445. Obtain measurements and samples using non-lethal techniques
 - 45. Compile a catalog of all tissues and other samples
 - 46. Conduct laboratory analysis of samples for diseases and parasites, contaminant levels, and nutritional status
 - 47. Compile and analyze data
- 5. Assess and minimize causes of mortality
 - 51. Determine causes of mortality and their relative contributions to total mortality
 - 511. Implement/expand stranding networks
 - 512. Survey selected areas for dead animals
 - 513. Monitor incidental take in commercial fisheries
 - 514. Investigate entanglement in debris
 - 515. Determine level of subsistence take in Alaska

TECHNICAL DRAFT RECOVERY PLAN--FEBRUARY 15, 1991

- 516. Evaluate causes and extent of other deliberate killing
- 517. Evaluate mortality caused by non-human predators
- 52. Minimize injury and mortality
 - 521. Develop and implement methods to reduce incidental take
 - 522. Develop non-harmful deterrents for use by commercial fishermen
 - 523. Improve and continue programs to minimize marine debris
 - 524. Develop methods to reduce loss rate in subsistence harvests
- 53. Review and revise recommendations for maximum allowable levels of legal take
- 6. Investigate feeding ecology and factors affecting energetic status
 - 61. Investigate sea lion feeding ecology
 - 611. Describe foods eaten by sea lions
 - 6111. Collect and analyze stomach contents
 - 6112. Collect and analyze scats
 - 612. Determine food and energy requirements
 - 613. Investigate feeding areas and feeding strategies
 - 6131. Identify feeding areas
 - 6132. Investigate diving behavior and feeding cycles
 - 614. Assess significance of various prey
 - 6141. Characterize geographic and seasonal patterns of prey availability and utilization by sea lions
 - 6142. Determine seasonal, size, and sex-related patterns of caloric and nutritional value of prey

TECHNICAL DRAFT RECOVERY PLAN--FEBRUARY 15, 1991

- 615. Compile and analyze data
- 62. Investigate interrelationships between prey abundance and sea lion growth and productivity
 - 621. Measure growth and productivity in areas with different food availability
 - 622. Develop models for individual and population energetics, growth, and productivity
- 63. Determine effects of fisheries on sea lion prey
 - 631. Measure effects of fisheries on sea lion prey in feeding areas
 - 632. Model effects of fishing on prey composition, distribution, abundance, and behavior
- 64. Ensure adequate food availability in feeding areas
 - 641. Regulate fishing areas, seasons, and types of operations
 - 642. Regulate fishery catches
- 7. Implement Recovery Plan and coordinate recovery activities
 - 71. Establish a Steller sea lion coordinator staff position
 - 72. Maintain the Steller Sea Lion Recovery Team
 - 73. Monitor Section 7 ESA requests for consultation
 - 74. Develop mechanisms for international conservation efforts
 - 741. Distribute Recovery Plan to other involved nations
 - 742. Develop bilateral or multilateral conservation agreements
 - 75. Conduct information and educational programs
 - 76. Enforce regulations
 - 761. Develop and improve systems for reporting violations
 - 762. Provide adequate and effective field enforcement programs