

Appendix G - Biological Assessment

Biological Assessment for the Endangered Humpback Whale, Endangered Steller Sea Lion, and Threatened Steller's Eider June 1, 2001

Determination of Effects on Listed Species

This biological assessment arrives at the determination that the alternatives evaluated in the revision of the Chugach National Forest Land and Resource Management Plan will have no effect on any listed species or critical habitat designated by the Secretary of Interior.

This determination has basis in a thorough evaluation of all land allocations or levels of management activities prescribed or permitted in any of the alternatives. The rationale for this determination is based primarily on two considerations:

- The minimal potential for direct, indirect, or cumulative effects to listed species or their habitat requirements within the planning area (Chugach National Forest) or larger USDI Fish and Wildlife Service (USFWS) definitional "Action Area" (50 CFR 402.2), resulting from actions permitted in the alternatives.
- The adherence by the USDA Forest Service to all requirements of the Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act and their various implementing regulations.

Section 7, Endangered Species Act, consultations will be used as appropriate on a project-by-project basis, subsequent to the selection and implementation of a chosen alternative for the Forest Plan revision.

I. Identification of Endangered and Threatened Species and/or Critical Habitats for Such Species Within the Project Area.

The following species were identified by the National Marine Fisheries Service (NMFS) as possibly occurring within the affected project area and are considered in this assessment:

Endangered:

Humpback Whale (*Megaptera novaeangliae*)

Steller (Northern) sea lion (*Eumetopias jubata*)

The NMFS completed a final recovery plan for the humpback whale in 1991 and for the Steller sea lion in 1992.

The following species were identified by the USFWS (letter dated 18 May 2001) as possibly occurring within the affected project area and are considered in this assessment:

Threatened:

Steller’s eider (*Polystica stelleri*)

Critical Habitats:

There has been no critical habitat officially designated or proposed to be designated within the affected area for Steller’s eider (USFWS letter dated 21 July 2000) or humpback whales at this time.

Critical habitat was designated for the Steller sea lion by the NMFS in 1993 and represents areas considered essential for the continued survival and recovery of this species (NMFS 1993). Critical habitat provides notice to federal agencies that a listed species is dependent on these areas for its continued existence and that any federal action that may affect these areas is subject to consultation requirements of section 7 of the Endangered Species Act.

Critical habitat at these sites includes a 3,000-foot distance landward and seaward from a major rookery or major haulout site. It also includes a 3,000-foot elevation air zone above these terrestrial and aquatic zones. Critical habitat also includes an aquatic zone that extends 20 nautical miles seaward in state and federally managed waters from the baseline or basepoint of each major rookery and major haulout in Alaska that is west of 144° W. longitude.

The following sites within the proposed action area have been designated as critical habitat for the Steller sea lion:

Fish Island (Wooded Islands)	rookery site ¹
Seal Rocks	rookery and haulout site ¹
Cape St. Elias	major haulout site ¹
Hook Point	major haulout site ¹
Perry Island	major haulout site ¹
Point Eleanor	major haulout site ¹
Pt. Elrington	major haulout site ¹
The Needle	major haulout site ¹

¹ Includes an associated 20 nautical miles aquatic zone

II. Overview of Species Distributions and Populations

The following summary of the species distribution and populations of the whales and sea lions was developed using information found in the final recovery plans, information contained in the NMFS website regarding the western population of the Steller sea lion (NMFS 2000a), information from the USFWS website for the Steller’s eider, and Federal Register information for all three species.

Humpback Whale

Humpback whales (*Megaptera novaeangliae*) are regularly sighted in the inside coastal waters of the Prince William Sound. Humpback whales feed in Gulf

Coastal waters from about May through December, although some have been seen every month of the year. This stock winters in Hawaiian waters and migrates to the feeding grounds. Peak numbers of whales are usually found in nearshore waters during late August and September, but substantial numbers usually remain until early winter.

Three feeding areas have been identified in Alaska for the Central North Pacific Stock; Prince William Sound, Southeast Alaska, and Kodiak Island.

The local distribution of humpbacks in Southcentral Alaska appears to be correlated with the density and seasonal availability of prey, particularly herring (*Clupea harengus*) and krill. In Prince William Sound, humpback whale congregations have been reported near Naked Island, in Perry Passage, near Chenega Island, in Jackpot, Icy and Whale bays, in Port Bainbridge and north of Montague Island between Green Island and the Needle (Calambokidis et al. 1997, NMFS 1991).

The population of the Central North Pacific Stock is estimated to be between 3698 and 4005 animals (NMFS 2000a).

There were 149 individual humpback whales identified in Prince William Sound from 1977 to 1993 using photographs of the unique markings on the underside of each whale's flukes (von Ziegasar 1992, Waite et al. 1999). The abundance of the Prince William Sound feeding aggregation is thought to be less than 200 whales (Waite et al. 1999).

The current population for the Central North Pacific stock of humpback whales is thought to have increased in abundance during the 1980s and the early 1990s (NMFS 2000b). This estimate is questioned due to the small sample size and the opportunistic sample methodology, and is considered a minimum estimate, as surveys have not been completed for the entire geographic region (NMFS 2000b).

Both habitat and prey are affected by human-induced factors that could impede recovery of this stock (NMFS 1991). These factors include subsistence hunting, incidental entrapment or entanglement in fishing gear, collision with ships, and disturbance caused by noise and other factors associated with shipping, recreational boating, high-speed thrill craft, whale watching, or aircraft traffic. Introduction and or persistence of pollutants and pathogens from waste disposal; disturbance and/or pollution from oil, gas, or other mineral exploration and production; habitat degradation or loss associated with coastal development; and competition with fisheries for prey species may also impact whales. These factors could affect individual reproductive success, alter survival, and/or limit availability of needed habitat (NMFS 1991).

This stock is the focus of a large whale watching industry in its wintering grounds (Hawaii) and a growing whale watching industry in its summering grounds (Alaska). Regulations concerning minimum distance to keep from whales and how to operate vessels when in the vicinity of whales have been developed for Hawaii waters in an attempt to minimize the impact of whale watching. Similarly,

marine mammal viewing guidelines have also been developed for Alaska waters. The growth of the industry, however, is a concern as preferred habitats may be abandoned if disturbance levels are too high.

Steller Sea Lion

The Steller (northern) sea lion (*Eumetopias jubata*) ranges from Hokkaido, Japan, through the Kuril Islands and Okhotsk Sea, Aleutian Islands and central Bering Sea, Gulf of Alaska, Southeast Alaska, and south to central California. The centers of abundance and distribution are the Gulf of Alaska and Aleutian Islands, respectively. The number of sea lions observed on certain rookeries from Kenai Peninsula to Kiska Island declined by 63 percent since 1985 and by 82 percent since 1960. The declines are spreading to previously stable areas and are accelerating. Significant declines have also occurred on the Kuril Islands, USSR.

Causes of the population decline are unknown. In 1995, the NMFS published a rule to recognize two distinct sea lion populations, a western population (west of 144° West longitude) and an eastern population, generally east of Cape Suckling and including southeast Alaska. Identification of the two populations was based upon genetic analysis. The proposed rule further recommended that the western population be reclassified because of continued precipitous population declines. The same report documented that sea lion populations had increased from 10-15 percent from 1990 to 1994. The Steller sea lion rookeries in the portion of Southcentral Alaska under Forest Service jurisdiction include Seal Rocks and Fish Island (Wooded Islands).

Steller's Eider

A proposed rule designating critical habitat for the Steller's eider gives a thorough summary of the bird's characteristics and demographics (65 FR 13262-13284). Steller's eiders breed in northern Russia and northern and western Alaska. Although formerly considered locally common at a few sites on both the Yukon-Kuskokwim Delta and the arctic coastal plain of Alaska, they have nearly disappeared from most nesting areas in Alaska. Single nests of Steller's eiders were found on the Yukon-Kuskokwim Delta in 1994, 1996, and 1997, suggesting existence of a very small remnant population. Historical reports of nesting Steller's eiders on the Aleutian Islands and Alaska Peninsula are unconfirmed and not substantiated by recent observations. Evidence of nesting by Steller's eiders has not been reported on the Seward Peninsula since the late 1800s, or on St. Lawrence Island since 1954. Current primary nesting range in Alaska consists of a portion of the central arctic coastal plain between Wainwright and Prudhoe Bay, primarily near Barrow (USDI Fish and Wildlife Service 2001).

In Russia, Steller's eiders nest along the arctic coast from the Chukotski Peninsula west to the Taimyr, Gaydan, and Yamal peninsulas.

Steller's eiders do not nest on the Chugach National Forest, and have been reported infrequently from upper Cook Inlet and Prince William Sound (Heer, USFWS personal communication).

Biologists estimate that the world population of Steller's eiders is around 220,000 birds, the majority of which nest in Russia. The number of pairs nesting on Alaska's arctic coastal plain is very roughly estimated at 1,000. Approximately 4,000 pairs of Steller's eiders may have nested on the Yukon-Kuskokwim Delta prior to the 1960s. Overall, the worldwide population of Steller's eiders may have decreased by as much as 50 percent over the last 30 years.

Most Steller's eiders breeding in Alaska and Russia migrate south after breeding to molt along the coast of Alaska from Nunivak Island to Cold Bay, primarily in Izembek Lagoon, Nelson Lagoon, and near the Seal Islands. At least 150,000 Steller's eiders, the majority of the world population, winter in Alaska from the eastern Aleutian Islands to Lower Cook Inlet. About 30,000 birds winter in eastern Russia in the Commander and Kuril islands, and an estimated 40,000 winter in northeastern Europe along the coasts of Estonia, Lithuania, Latvia, Finland, Norway, and Sweden. During their northward spring migration from wintering areas in Alaska, Steller's eiders can be found in large flocks close to shore from northern Bristol Bay to Hooper Bay. Steller's eiders are diving ducks that spend most of the year in shallow, near-shore marine waters. They feed by diving and dabbling for mollusks and crustaceans in the shallow water. Molting and wintering flocks congregate in protected lagoons and bays, as well as along rocky headlands and islets. In summer, they nest on coastal tundra adjacent to small ponds or within drained lake basins. During the breeding season they feed on aquatic insects and plants in freshwater ponds and streams.

Causes of the decline worldwide and in Alaska are not known. Lead poisoning caused by eiders ingesting spent lead shot as they feed, may have affected Steller's eiders on the Yukon-Kuskokwim Delta.

III. Assessment of Effects on the Populations or Habitats of the Species in Relation to Proposed Actions of the Revised Forest Plan

Humpback Whale

The recovery plan for the humpback whale identified six known or potential categories of human impacts to these species: hunting, entrapment and entanglement in fishing gear, collisions with ships, acoustic disturbance, habitat degradation, and competition for resources with humans. National Forest management activities that may have an effect on whale habitats or populations generally fall into only two of these categories: acoustic disturbance and habitat degradation.

Effects from Acoustic Disturbance

Acoustic disturbances to humpback whales from boat use associated with mooring facilities and popular destination sites are considered to be similar to those associated with whale watching activities. Such effects could occur in several ways from noise effects impeding echolocation in some whales or otherwise interfering with hearing. This could potentially result in a direct physical impact with a vessel; habitat modification from excessive noise resulting

in disruption or alteration of normal feeding, resting, or other critical behaviors leading to reduced fitness, reproductive effects and population level changes (NMFS 2000b).

The literature on quantified effects is not extensive, however, and suggests that the effects could occur over time, reducing the overall fitness of the individual and would be manifested in reproductive or population level changes (NMFS 2000b). Whales can be commonly found in some areas of Prince William Sound that have considerable boat traffic suggesting that habitat avoidance is not occurring, and adverse effects from current levels of boat traffic have not been documented from Prince William Sound. The number of recreation vessels that could interact with humpback whales during visits to the Chugach National Forest in Prince William Sound is anticipated to increase significantly from increased access caused by the opening of the tunnel to Whittier.

The majority of activity in the marine environment includes commercial fishing, sport fishing, hunting, subsistence, tourism, and mariculture. Few of these activities are under Forest Service jurisdiction. The additional amount of human activity associated with Forest management or Forest Service permitted activities is only a fraction of the total amount of human activities in Prince William Sound.

The NMFS has regulations for how close humans can approach whales (NMFS 2000b) to reduce disturbance to whales from activities such as whale watching. Such regulations would reduce or eliminate the disturbance effects discussed above, and are applicable to Forest Service management and permitted activities.

Accordingly, implementation of the Chugach National Forest Land and Resource Management Plan will eliminate any adverse effect on humpback whales from National Forest management or Forest Service permitted activities.

Habitat Degradation

Marine habitat degradation may result from some Forest Service permitted or approved activities. Such activities include: the development and use of log transfer facilities (LTFs) and their associated camps, the movement of log rafts from log transfer facilities to mills, and the potential development of other docks and associated facilities for mining, recreation, and other forest uses and activities.

Construction and operation of LTFs and other docking facilities are restricted to small, very localized areas of the marine environment. Generally, with the development and use of LTFs and other docking facilities for projects or recreational sites, there is an associated increase in recreational boating in the immediate vicinity during the construction and use of the facilities. There are no LTFs currently located in the Chugach National Forest, nor are any LTFs anticipated for this planning period.

There are two docking buoys currently placed by the Forest Service in Prince William Sound, and 11 recreation cabins that may be reached by water. Of these 11, five are on islands and facing the outer Gulf and are normally reached by

airplanes that land on the beaches and flats exposed by the 1964 earthquake. Of the remaining six cabins, some are reached by aircraft, some by kayaks or small powerboats, and none are reached by large ships that discharge effluent or other pollutants into the marine environment.

Accordingly, Forest Service management or permitted activities will have no effect on humpback whales, their environment, or their prey species.

Steller Sea Lion

The National Marine Fisheries Service provides a summary of factors affecting the Steller sea lion (NMFS 1990, 1993). These factors include: reductions in the availability of food resources – especially pollock that are the most important prey species for sea lions; commercial harvests of sea lion pups; subsistence harvests of sea lions; harvests for public display and scientific research purposes; predation by sharks, killer whales and brown bear; disease; the inadequacy of existing regulatory mechanisms regarding quotas on the incidental harvesting of sea lions during commercial fishing operations; other natural or manmade factors such as incidences of fishermen shooting adult sea lions at rookeries, haul out sites, and in the water near boats. None of these factors are regulated or fall within the jurisdiction of the Forest Service.

Southcentral Alaska populations have declined significantly. Harassment or displacement of sea lions from preferred habitats by human activities (boating, recreation, aircraft overflights, etc.) is a concern with regard to long-term conservation of the sea lion in Southcentral Alaska.

The National Marine Fisheries Service has promulgated regulations (50 CFR 226.12 (a)) for the protection of Steller sea lion critical habitats that are applicable to Forest Service management and permitted activities.

Accordingly, implementation of the Chugach National Forest Land and Resource Management Plan will eliminate any adverse effect on the Steller sea lion or its habitat from National Forest management or Forest Service permitted activities.

Steller's Eider

Threats to the Steller's eider include predation that may be increasing by ravens, large gulls, and foxes on the breeding grounds in areas where populations of these predators are enhanced by the year-round food and shelter provided by human activities and garbage dumps. Hunting also poses a threat to Steller's eiders. Disturbance and loss of nesting habitat due to oil and gas development may have occurred in Siberia. Increased shipping traffic poses the risk of oil spills and disturbance of feeding flocks in marine waters. Other possible causes of the decline include marine contaminants and changes in the Bering Sea ecosystem affecting food availability, but there is currently very little information about the effects of these factors on Steller's eiders.

Nonetheless, Forestwide standards to limit the habituation of wildlife to food and garbage have been instituted and Forest Service management or permitted activities will have no effect on the Steller's eider or their habitat.

IV. Determination

Based upon the analysis presented, activities allowed in the proposed revision of the Chugach National Forest Revised Forest Plan will have no effect on the humpback whale, Steller sea lion, Steller's eider or their habitats.

In addition, formal and informal consultation procedures (as directed by the Endangered Species Act, as amended in 50 CFR Section 402, and Forest Service Manual 2670) are used with the National Marine Fisheries Service and the US Fish and Wildlife Service on all site-specific projects that implement the forest plan. Forestwide standards for threatened and endangered species (Revised Forest Plan, Chapter 3) also direct that all projects will comply with requirements of the Endangered Species Act and its implementing regulations, and Forest Service Policy (FSM 2670).



United States Department of the Interior

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FISH AND WILDLIFE SERVICE

Ecological Services Anchorage
605 West 4th Avenue, Room 61
Anchorage, Alaska 99501-2249

PLANNING RECORD

In reply refer to:
WAES

July 2, 2001

Mr. Gary Lehnhausen
Chugach National Forest
3301 C Street, Suite 300
Anchorage, Alaska 99503

Re: Chugach National Forest Plan Revision

Dear Mr. Lehnhausen,

Pursuant to section 7 of the Endangered Species Act of 1973, (16 U.S.C. 1531 et seq; 87 stat 884, as amended) (Act), this letter is in response to your request for concurrence and/or comments regarding your determination that threatened or endangered species will not be adversely affected by alternatives presented in the Chugach National Forest Plan Revision.

Steller's eiders (*Polysticta stelleri*), listed as threatened in 1997, have been observed in the waters near Montague Island and Orca Inlet. However, considering that this species occurs in such low numbers in Prince William Sound, the Service concurs with your agency's assessment that this project is not likely to adversely affect this species. Preparation of a biological assessment or further consultation under section 7 of the Endangered Species Act regarding this project is not necessary at this time. If project plans change, additional information on listed or proposed species becomes available, or new species are listed that may be affected by the project, consultation should be reinitiated.

This letter relates only to federally listed or proposed species and/or designated or proposed critical habitat under our jurisdiction. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act.

This concludes section 7 consultation on the Chugach National Forest Plan Revision. Thank you for your cooperation in meeting our joint responsibilities under section 7 of the Endangered Species Act.

If you have any questions, please feel free to contact me by phone at (907) 271-2781, by fax at (907) 271-2786, or by e-mail at charla_sterne@fws.gov.

Sincerely,

Charla Sterne
Endangered Species Biologist

PLANNING RECORD



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

38282

June 27, 2001

Dave R. Gibbons
Forest Supervisor
U.S. Forest Service
Chugach National Forest
3301 C Street, Suite 300
Anchorage, Alaska 99503

FILE 54

Dear Mr. Gibbons:

Thank you for your letter concerning the proposed revision of the Chugach Forest Plan. Our agency concurs with your determinations on the effects of this action on threatened and endangered species and their critical habitat. Therefore, we consider the requirements of Section 7 (a) (2) of the Endangered Species Act met and no further consultation is required. Please direct any questions to Mr. Brad Smith in our Anchorage office at (907) 271-5006.

Sincerely,

RJ Berg

FOR Ronald J. Berg
Deputy Regional Administrator

