

1.0 PURPOSE AND NEED

1.1 Introduction

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) is responsible for management, conservation, and protection of Steller sea lions (SSLs), *Eumetopias jubatus*, under the Endangered Species Act (ESA) (16 United States Code [U.S.C.] 1531 *et seq.*) and the Marine Mammal Protection Act (MMPA) (16 U.S.C. 1361 *et seq.*) and of Northern fur seals (NFSs), *Callorhinus ursinus*, under the MMPA. NFSs in the Pribilof Islands are also managed under the Fur Seal Act of 1966 (16 U.S.C. 1151 *et seq.*).

In 1990, NMFS listed SSLs as "threatened" under the ESA, and in 1997 it recognized two distinct populations: western and eastern. The segment of the population west of 144° West (W) longitude was listed as "endangered," while the segment of the population east of this delineation remained listed as "threatened." Both distinct populations of SSLs are listed as depleted stocks under the MMPA. NFSs, recognized as two distinct stocks (eastern Pacific and San Miguel), have never been listed under the ESA, but the eastern Pacific stock was listed as "depleted" in 1988 (then as the Pribilof Islands population) under the MMPA. A detailed history of these two species is provided in Chapter 3, Affected Environment.

NMFS administers a research program that includes (1) directed grants from the Alaska Region's operational budget, (2) "pass-through" grants detailed in the federal budget, and (3) permits issued pursuant to the MMPA and ESA for the purpose of promoting research on SSLs and NFSs in lands and waters under United States (U.S.) jurisdiction. Most research activities require permits, which NMFS administers to qualified individuals and institutions from the NMFS Office of Protected Resources, Permits Division (F/PR1). Permits are granted provided the proposed research activities are consistent with the requirements of the ESA, MMPA and the criteria in NMFS implementing regulations (50 Code of Federal Regulations [CFR] parts 216, 222, 223, and 224). The proposed action is to disburse federal funds and issue permits for research on SSLs and NFSs, consistent with applicable federal laws.

In determining which research activities are likely to contribute to the recovery of an ESA-listed species, NMFS refers to the species recovery plan. A recovery plan, as required under Section 4 of the ESA, describes site-specific management actions necessary to help the population stabilize and recover to the point at which it can be delisted from the ESA. NMFS published the original SSL Recovery Plan in 1992 (NMFS 1992a) and recently released an updated 2006 Draft SSL Recovery Plan (NMFS 2006a) to reflect new information on the status of both the western and eastern stocks. Research efforts on SSLs during most of the 1990s were guided by recommendations contained in the 1992 SSL Recovery Plan. Research funding for federal agencies during this period was less than \$1 million annually, of which over half was required for population monitoring surveys.

During the late 1990s, SSL research activities intensified as recent scientific findings, litigation, and new legislation focused increasing attention on the species' ongoing population decline and concerns over possible impacts by commercial fisheries in Alaskan waters. This renewed attention was manifested in a seven-fold increase in research funding between 2000 and 2001, with over 125 individual projects planned or implemented. This increase in funding resulted in a corresponding increase in the number of permits requested and issued for research on this species. A wide spectrum of research entities were engaged in these studies, including federal and state agencies, universities, and non-governmental research organizations. In cooperation with the entities that received federal funding, NMFS developed a research coordination framework to clarify the context of individual research projects, to show their relationships to each other, and to link them to the underlying hypotheses that might explain the continued decline of the western SSL population.

Research on NFSs has, to date, received less attention. However, the similarity of NFS population decline to that of the western SSL population has prompted increased interest in understanding the reasons for the NFS decline. As a result, there has been a three-fold increase in the number of applications for permits to conduct research on NFSs. In response to this increased interest in research, and in anticipation of further increases in the number of

permit applications to study NFSs, NMFS is evaluating the potential effects of research on this species as well in this Programmatic Environmental Impact Statement (PEIS). For species listed as depleted under the MMPA, NMFS is required to develop a Conservation Plan to help guide research and management activities and to promote the recovery of the species. A NFS Conservation Plan was originally published in 1993 (NMFS 1993) and was updated in 2006 (NMFS 2006b).

Most federal agencies are required by the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 *et seq.*) to prepare an environmental assessment (EA) or EIS prior to any decision-making on actions that may have the potential to cause environmental impacts. NMFS complies with this NEPA requirement under the NOAA Administrative Order (NAO) 216-6 prior to such decision-making. Generally, NEPA requirements for preparing an EA or EIS are not triggered by issuance of scientific research permits and awarding research grants. However, when the activities that would be authorized in a scientific research permit (1) would have uncertain environmental impacts or unique or unknown risks; (2) would establish a precedent or decision in principle about future proposals; (3) may result in cumulatively significant impacts; or (4) may have any adverse effects upon threatened or endangered species and their habitats, the preparation of an EA or EIS is required (NMFS 2005b). For these reasons, this EIS is programmatic in nature to address the impacts of pending and future research activities and provide guidance for subsequent tiered NEPA compliance.

NMFS has determined that the act of awarding research grants is a federal action requiring compliance with NEPA. Similarly, issuance of permits for research activities on marine mammals is a federal action requiring NEPA compliance. These permits are issued pursuant to the provisions of the ESA, the MMPA, and NMFS regulations implementing these statutes.

1.2 Purpose and Need for Action

1.2.1 Purpose

The purpose of the research on SSLs and NFSs, as stated in the 1992 SSL Recovery Plan and the 1993 NFS Conservation Plan, is to promote the recovery of the species' populations to levels appropriate to justify removal from ESA listings, and to delineate reasonable actions to protect the depleted species under MMPA. NMFS awards grants to support research on SSLs and NFSs, and issues permits to allow an exemption to the prohibition on "takes¹" of SSLs and NFSs, established under the ESA and MMPA. By awarding research grants and permitting investigators to monitor these species and their populations and conduct studies that enhance NMFS' understanding of the causes of population decline, NMFS can subsequently develop more informed and effective management actions that promote recovery and conservation of the species.

The ESA and the MMPA prohibit takes of threatened and endangered species, and of marine mammals, respectively. Many research activities, including aerial and vessel-based surveys, tagging and marking procedures, attachment of scientific instruments, and collection of tissue samples, require approaching or capturing animals and may result in harassment or other acts prohibited under the ESA and MMPA. There are two basic ways NMFS counts takes for permitting research: the number of takes per species/stock and the number of takes per animal. In the first case, any animal exposed to an activity with the potential to disturb or injure is considered a take under the MMPA definition. Thus, all animals exposed to an aerial survey, regardless of their response, are permitted as a take. For the later case, each capture event, type of mark or instrument applied, type of sample collected, or procedure performed is considered a take because each act has the potential to disturb or injure the animal.

¹ ESA defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under the MMPA, "take" is defined as to "harass, hunt, capture, collect or kill, or attempt to harass, hunt, capture, collect or kill any marine mammal." Since research activities in the field often involve close approach or capture of animals, the purpose of issuing permits is to allow researchers specific exemptions to the prohibition on "takes" under the ESA and MMPA.

1.2.2 Need

The need for research is rooted in fundamental questions related to understanding the biology and ecology of SSLs and NFSs, including population trends, reproductive mortality rates, foraging behavior, and energetics, as well as other factors that may be limiting the populations, such as habitat loss or degradation, predation, parasitism, and disease. The need for the proposed action stems from the responsibility of NMFS to implement the ESA and MMPA for species under its jurisdiction. For SSLs and NFSs, the need is to facilitate research to: (1) promote recovery; (2) identify factors limiting the population; (3) identify reasonable actions to minimize impacts of human-induced activities; and (4) implement conservation and management measures.

The need for this PEIS includes satisfying NMFS' obligations under NEPA by analyzing the environmental consequences of research it authorizes on SSLs and NFSs, sharing and soliciting public comments on this information, and providing the basis for NMFS research grant and permit decisions. As part of this action, Chapter 5 of this PEIS explores measures that could improve efficiency and avoid unnecessary redundancy in SSL and NFS grant and permit process, best management practices, and coordination of research.

1.3 Current Research and Associated Permits

1.3.1 Steller Sea Lions

At present, 23 active grants fund research projects that involve human interaction with SSLs. All active and anticipated SSL research funded by past, present, and expected future federal grants are covered by this PEIS document. Research activities taking place under active grants range from actions such as aerial surveys, which could disturb individual sea lions, to the capture of sample populations, for collection of blood and tissue samples. A description of permits valid between January 1, 2006 and December 31, 2011 may be found in Appendix A of this PEIS. Together, these permits currently authorize takes of SSLs throughout their range in the U.S. by a variety of research activities. In addition to authorizing various studies, the permits allow for the mortality of up to 60 SSLs per year incidental to research activities, not to exceed 18 SSLs from the western population. Applications for additional permits for studies of SSLs using these and other methods are anticipated for at least as long as this species is listed under the ESA. Further, NMFS has an ongoing obligation under Section 117 of the MMPA to prepare stock assessments for each marine mammal stock in waters under the jurisdiction of the U.S. These stock assessments, which must describe the geographic range, minimum population estimate, current and net productivity rates, annual human-caused mortality and serious injury, and other factors that may be causing a decline or impeding recovery, are largely dependent upon information obtained from activities conducted under research permits. Thus, NMFS anticipates a need to continue to issue permits for research on SSLs for as long as this requirement of the MMPA holds.

Other permits authorized for research on captive animals, studies involving tissue samples only, studies related to killer whale predation, and studies in which harassment of SSLs is incidental to other marine mammal research are not listed above. Permitted activities are described in Section 2.3 and include the following general research activities:

- Aerial, vessel, and ground surveys
- Scat collection
- Capture and temporary restraint
- Standard morphometric procedures (external measurements of an animal)
- Tissue sampling (e.g., skin, muscle, blubber, vibrissae, teeth, blood)
- Body composition analysis by injection of stable isotopes, ultrasound, bioelectric impedance analysis (BIA), portable metabolic chamber
- External and internal scientific instruments

- Stomach intubation and enemas
- Removal from the wild for temporary captivity and associated studies

However, the current status of permits for SSL research has been affected by a recent court ruling related to a lawsuit initiated by The Humane Society of the United States (HSUS). On May 26, 2006, the U.S. District Court in the District of Columbia vacated six SSL research permits and amendments and directed NMFS to prepare an EIS (The Humane Society of the United States v. Department of Commerce, 05-1392-ESH, D.D.C.). On June 30, 2006, the court allowed a very limited number of activities to go forward, in accordance with a settlement agreement between NMFS and plaintiff, HSUS. This research was limited to activities that did not involve capture or handling of animals and resulted in only minimal disturbance (i.e., aerial and vessel surveys and remote observations).

Appendix B provides an overview of the current (prior to the court vacating any permitted activities) research techniques used on SSLs and NFSs, summarizes the potential effects of these techniques, and describes the types of information collected using different techniques and how that information may be used.

1.3.2 Northern Fur Seals

Consistent with the purpose of the MMPA the purpose of conducting research on NFSs is to contribute to the basic knowledge of marine mammal biology and ecology and to identify, evaluate, or resolve conservation problems for the species. Research needs for conservation of this species are identified in the NFS Conservation Plan. Currently, the Alaska Region has not made any specific grant awards for NFS research. However, one pass-through SSL grant does support a small NFS study. Six permits or authorizations are currently active for research directed at NFS in the wild and are valid through October 1, 2010. Active permits for research on NFSs in the wild, valid through October 1, 2010, may be found in Appendix A of this PEIS. The active permits authorize takes of NFSs in California, and in Alaska on the Pribilof Islands and Bogoslof Island. As with SSLs, these permits authorize a variety of research activities ranging from vessel or aerial surveys that may disturb animals, to capture and sampling of animals, which may result in injury or incidental mortality. Applications for additional permits for studies of NFSs using these and other methods are anticipated for as long as there is concern about the population status and potential impacts of human activities, and general interest in studies of the species biology and ecology. Further, as with SSLs, NMFS has an ongoing obligation under Section 117 of the MMPA to prepare stock assessments for each marine mammal stock in waters under the jurisdiction of the U.S. and, therefore, anticipates a need to continue to issue permits for research on NFSs for as long as this requirement of the MMPA holds.

Generally, types of research on NFSs include the following activities:

- Aerial and ground surveys
- Scat collection
- Capture and temporary restraint
- Standard morphometric procedures (external measurements of an animal)
- Tissue sampling (e.g., skin, muscle, blubber, vibrissae, teeth, blood)
- Temporary marking (e.g., flipper tags)
- External scientific instruments
- Behavioral observations

1.4 Description of the Project Area

NMFS is preparing a PEIS that will address both NMFS' administration of federal grants and issuance of research permits that may have impacts to SSLs, and NFSs, throughout their ranges in U.S. waters. SSLs range along the North Pacific Rim from Northern Japan to California (Loughlin *et al.* 1984), with centers of abundance and distribution in the Gulf of Alaska (GOA) and Aleutian Islands (AI), respectively. NFSs range from southern California north to the Okhotsk Sea and Honshu Island, Japan. During the breeding season, approximately 57 percent of the worldwide population is found on the Pribilof Islands in the southern Bering Sea, 40 percent are on islands off the coast of Russia, 2 percent on Bogoslof Island in the southern Bering Sea, and less than 1 percent on San Miguel Island in California (Ream *et al.* 2005). A map of the project area is shown in Figure 1.4-1.

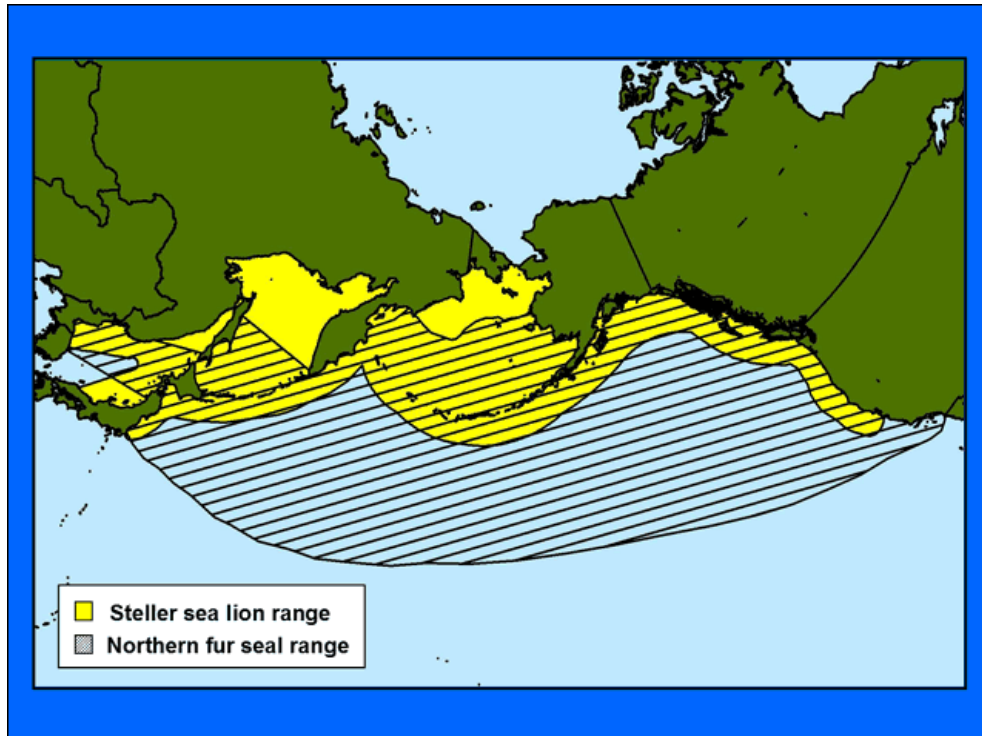


Figure 1.4-1. Project Location Map

1.4.1 Intent of the Environmental Impact Statement

As some of the research activities may result in adverse effects on threatened and endangered SSLs and depleted NFSs, NMFS is preparing this PEIS to evaluate the direct, indirect, and cumulative impacts of funding and permitting proposed research activities. This PEIS will evaluate the effects of the type and range of SSL and NFS research activities (i.e., the alternative actions) that may be exercised in current and future grants and permits.

The PEIS will assess the direct and indirect effects of various levels of funding and different research techniques on SSLs and NFSs throughout the entire range of these species in U.S. waters and on the high seas, which includes parts of Alaska, Washington, Oregon, and California. The effects of research on these species as well as other components of the marine ecosystem and human environment will be assessed. The PEIS will also assess the contribution of research activities to the cumulative effects on these species and resources, including effects from past, present, and reasonably foreseeable future events and activities that are external to the research activities.

The PEIS is intended to provide a clear and comprehensive process to determine how future grants and permits fall within the scope of this programmatic assessment, whether they are covered under the analysis of environmental consequences for the alternatives considered, and what type of further NEPA analysis is required, if any. If a future grant or permit activity does not fall within the scope of the PEIS, a specific supplemental document would be required. If the future grant or permit activity is determined to be within the scope of the programmatic document and Preferred Alternative, additional NEPA analysis would not be required. Section 5.2 provides a roadmap regarding which future grant and permit activities would require no additional NEPA analysis beyond this PEIS, those activities that may need supplemental NEPA analysis (i.e., those that would tier from this PEIS but require some further analysis), and future grant and permit activities that would require new NEPA analysis.

This document, as a programmatic analysis, covers expected and projected federally granted and permitted research projects for future years, until such time that a revision of the programmatic document is deemed necessary.

1.4.1.1 Programmatic Environmental Impact Statements

A PEIS is typically a broad-scale environmental evaluation that examines a program on a large scale. In keeping with the Center for Environmental Quality (CEQ) regulations, agencies often prepare this type of PEIS when considering new federal programs or regulations (40 CFR 1502.4[b]). However, a PEIS may also be used to evaluate an ongoing program and alternative directions that the program may take in the future. To streamline the NEPA process and avoid repetition, the CEQ regulations encourage federal agencies to develop a tiered approach to their analyses (40 CFR 1502.20). This allows broad, program-oriented issue analyses to be incorporated by reference into subsequent EAs or EISs that focus on specific proposed federal actions (40 CFR 1500.4[I]). NOAA, in its own NEPA guidelines (NAO 216-6, Section 5.09a), states that “a programmatic environmental review should analyze the broad scope of actions within a policy or programmatic context by defining the various programs and analyzing the policy alternatives under consideration and the general environmental consequences of each (alternative).”

1.5 Related National Environmental Policy Act Documents that Influence the Scope of this Environmental Impact Statement

There are one supplemental EIS (SEIS) and four EAs that influence the scope of this PEIS. The 1993 EA (NMFS 1993a) evaluated the impacts of hot-branding and other techniques for marking marine mammals. The 2001 SEIS evaluated the impacts of SSL protective measures in the federal groundfish fisheries off Alaska (NMFS 2001b). The 2002 EA evaluated the impacts of issuing permits for research on threatened and endangered SSLs (NMFS 2002). The 2003 EA, a supplement to the 2002 EA, evaluated the impacts of issuing amendments to two of the research permits considered under the proposed action of the 2002 EA. The 2005 EA evaluated the relevant effects of a variety of scientific research activities on SSLs under several alternative permitting options (NMFS 2005b). Each of the documents is summarized below. There have been previous NEPA documents that assessed the effects of fishing and subsistence hunts on NFSs (NMFS 2004a and 2005b), but there have been no previous NEPA analyses on research permits for NFSs.

1.5.1 1993 Environmental Assessment

The 1993 EA analyzed the effects of branding pinnipeds in Washington, Oregon, and California and was prepared in response to public comments received concerning two applications for permits to hot-brand harbor seals and SSLs. The EA included a review of some techniques for marking pinnipeds (e.g., natural markings, plastic flipper tags, tattooing, toe-clipping, web punching, hot-branding, and freeze-branding) and an assessment of the consequences of each technique. It was determined that a method of permanently marking pinnipeds in a way that allowed reliable identification of individuals (from a distance) was needed for effective monitoring of the status and health of harbor seal and SSL populations in Washington, Oregon, and California. The Preferred

Alternative (proposed action) was issuance of authorization to hot-brand with specific conditions to mitigate the effects, including monitoring of the short- and long-term effects of hot-branding on these two species of pinnipeds.

A Finding of No Significant Impact (FONSI) was signed by the Acting Assistant Administrator for Fisheries on July 16, 1993. The scope of the EA did not include SSLs in Alaska and it did not consider the potential cumulative effects of the currently permitted and proposed scientific research activities. In addition, the status of SSLs has changed significantly since the time the EA was prepared: the western population was listed as endangered in 1997 and the population continued to decline until approximately 2000 (Angliss and Outlaw 2005).

1.5.2 2001 Steller Sea Lion Protection Measures in the Federal Groundfish Fisheries Off Alaska Supplemental Environmental Impact Statement

The 2001 SEIS evaluated alternatives to mitigate potential adverse effects resulting from the controversial issue of competition for fish between SSLs and commercial fisheries. These fisheries had been identified as jeopardizing the continued existence of SSLs and adversely modifying their critical habitat (NMFS 2000). While environmental groups contended that fisheries compete with SSLs for prey, thereby reducing the survival of SSLs and contributing to continued population declines, the fishing community contended that other factors, such as climate change and predation by killer whales, are to blame for the SSL population decline. The lack of scientific evidence directly linking fisheries with effects on SSLs, combined with ESA requirements relative to burden of proof, have heightened the controversy over the impacts of commercial fisheries on the status of SSLs.

NMFS' Preferred Alternative (proposed action) involved application of different types of management measures by area and fishery, such as fishery-specific closed areas around rookeries and haulouts, and season and catch apportionments. Uncertainty remains regarding the nature of the effects of fisheries on SSLs and about the effectiveness and socioeconomic impacts of conservation measures intended to minimize the potential for adverse impacts, thereby heightening both the controversy and the sense of need for continued and additional research on the causes of the decline of SSLs.

Similar to the situation with SSLs, a potential indirect impact of competition for prey species between commercial fisheries and NFSs has also been suggested in recent years. However, there are currently no protection measures proposed or in place for NFSs.

1.5.3 2002 Environmental Assessment on the Effects of NMFS Permitted Scientific Research Activities on Threatened and Endangered Steller Sea Lions

In response to applications for permits to conduct research on threatened and endangered SSLs, NMFS prepared an EA in 2002 to evaluate the effects of scientific research on these animals (NMFS 2002). The magnitude and intensity of the proposed research was unprecedented, and included multiple intrusive research procedures for relatively large numbers of animals compared to previous research efforts. The permit applications were largely related to substantial funding opportunities made available through Congressional appropriations. The funding was made available with the purpose of determining the cause of the population decline. The language of the appropriations directed research into the cause of the population decline, the development of conservation and protective measures to ensure recovery of the species, and contribution of immediate, short-term information relevant to adaptive fishery management strategies in the Bering Sea/Aleutian Islands (BS/AI) and the GOA groundfish fisheries.

The Proposed Action was to issue the permits as requested by the applicants but with a number of mitigation measures, some of which were intended to minimize the potential for adverse impacts by requiring researchers to use commonly accepted "best practices" in capture and handling of animals. Other measures were intended to limit the duration of adverse impacts while simultaneously collecting information on the effects of the research program on SSLs. In June 2002, the Assistant Administrator for Fisheries signed a FONSI, which concluded that

the issuance of the permits and permit amendments as described in the Proposed Action would not significantly affect the human environment. The 2002 EA analyzed the effects of the research over just a two-year period, from 2002-2004.

1.5.4 2003 Supplemental Environmental Assessment

NMFS prepared a Supplemental EA in 2003 to assess the impacts of issuing major amendments to two of the permits analyzed under the Proposed Action of the 2002 EA (NMFS 2003). The 2002 EA did not discuss collection of muscle tissue incidental to remote blubber biopsy sampling under one of the permits (University of Washington, Permit No. 1016-1651) because the request for that activity was received after the analyses were completed. The 2002 EA also did not discuss the transport of wild SSLs to the Alaska SeaLife Center (ASLC) for temporary captivity and associated experiments included in the original application because NMFS determined there was not enough information in the application on the proposed activities to perform an analysis of effects. The 2003 Supplemental EA analyzed the impacts of issuing the proposed amendments under the existing mitigation measures of the permits as previously issued, with the addition of a few activity-specific mitigation measures agreed upon by the permit holders. A FONSI was signed on July 21, 2003 and permit amendments were issued. As with the 2002 EA, the Supplemental EA only analyzed the effects of the research through 2004.

1.5.5 2005 Environmental Assessment on the Effects of NMFS Permitted Scientific Research Activities on Threatened and Endangered Steller Sea Lions

As with the 2002 EA, NMFS prepared an EA in 2005 in response to applications for permits to conduct research on SSLs (NMFS 2005b). The 2005 EA evaluated the relevant effects of a variety of scientific research activities on SSLs because NMFS determined that better information was needed regarding the effects of human activities on SSLs, and that such information would facilitate informed management decisions about whether or how to modify human activities to promote recovery of SSLs.

The objective of the Proposed Action in the EA was to allow conduct of bona fide scientific research that would be likely to contribute to recovery of SSLs. As with the 2002 EA, the Proposed Action was to issue the permits as requested by the applicants, but with some exceptions and a number of mitigation measures. Mitigation measures were generally intended to minimize the potential for adverse impacts by requiring researchers to use commonly accepted “best practices” in capture and handling of animals. In May 2005, the Assistant Administrator for Fisheries signed a FONSI, which concluded that the issuance of the permits and permit amendments as described in the Proposed Action would not significantly affect the human environment. Public comments received on the 2002 and 2005 EAs are included in Appendix C.

1.6 Required Decisions and Other Agencies Involved in this Analysis

NMFS must decide whether awarding grants and issuing the proposed permits and permit amendments for conducting research on SSLs and NFSs would be consistent with the purposes and policies of the MMPA, ESA, and their implementing regulations. This includes making certain the grants and permitted activities would qualify as bona fide research;² directly benefit a species or stock, or fulfill a critically important research need if the research involves the lethal taking of a threatened, endangered, or depleted marine mammal (16 U.S.C. 1374 [c][3][B]); and that the research does not operate to the disadvantage of any species listed as threatened or endangered (ESA Section 10 [a][2][B][iv]). NMFS consults with the Marine Mammal Commission (MMC) and other appropriate federal or state agencies in reviewing permit applications. However, NMFS has sole jurisdiction for issuance of permits for research on SSLs and NFSs. Thus, no other agencies are directly involved

² The MMPA defines “bona fide research” as “scientific research on marine mammals, the results of which: likely would be accepted for publication in a referenced scientific journal; are likely to contribute to the basic knowledge of marine mammal biology or ecology; or are likely to identify, evaluate, or resolve conservation problems” (16 U.S.C. § 1362[22]).

in this analysis. Researchers may require permits from other agencies for access to lands and waters, and these permits are subject to separate NEPA compliance (see Section 1.9).

1.7 Federal Laws Applicable to Steller Sea Lion and Northern Fur Seal Research

The federal act of awarding grants and issuing permits for research activities on marine mammals is subject to a number of federal laws and regulations. These are briefly summarized in the following section.

1.7.1 National Environmental Policy Act of 1969

NEPA establishes the nationwide policy, goals, and legal authority for federal agencies regarding the environment (40 CFR 1500.1[a]). It requires federal agencies to study the environmental consequences of their actions and to use an interdisciplinary framework for environmental decision-making.

NEPA also requires federal agencies to make environmental information available to the public and to public officials, and to consider their comments, before making decisions that could affect the environment. Documents prepared by federal agencies in compliance with NEPA must be streamlined in that they focus on the issues that are truly significant to the action in question and present alternatives in a way that allows potential environmental consequences to be clearly distinguished, along with “advice and information useful in restoring, maintaining, and enhancing the quality of the environment” (43 Federal Register [FR] 55990, November 28, 1978, and 40 CFR 1502.1, 1502.2, and 1502.14).

The provisions of NEPA require that an EIS have the following elements:

1. Statement of Purpose and Need for the Proposed Action
2. Description of Alternatives Evaluated in the EIS, including the Proposed Action, the No Action Alternative, and Alternatives Evaluated but Eliminated from Further Consideration
3. Description of the Affected Environment
4. Analysis of Environmental Consequences of Alternatives Carried Forward in the EIS
5. The Relationship Between Local Short-Term Uses of Man’s Environment and the Maintenance and Enhancement of Long-Term Productivity
6. Any Irreversible and Irrecoverable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented

The preparation of an EIS must include the following five basic steps:

1. **Scoping.** As the first step in the NEPA process, scoping provides an opportunity for the public, government agencies, and other interested groups to provide information and advice on issues that might be associated with the proposed project, so that the lead federal agency can decide whether and how to address them in the EIS. Scoping can also identify new alternatives to be considered in the EIS. This step is usually accomplished by publishing a Notice of Intent (NOI) in the FR and through a combination of written communications, statements made at public meetings, and consultation with agency officials, interested individuals, organizations, and groups.
2. **Draft Environmental Impact Statement.** After scoping is completed, a draft EIS (DEIS) is prepared. The DEIS describes and evaluates all reasonable alternative actions, including no action. If the lead agency has decided upon a preferred alternative by the time a DEIS is prepared, it is identified. The DEIS evaluates physical, biological, socioeconomic, and environmental impacts that might result from the alternatives carried forward for analysis, and it identifies those impacts that are likely to be significant. It focuses on cause-and-effect relationships and provides sufficient evidence and analysis for determining the probable magnitude of predicted impacts. Finally, it identifies ways to mitigate the impacts – to

avoid, minimize, rectify, reduce, or eliminate those impacts over time, or to compensate for any potential harm to the environment that might be caused by any of the alternatives.

3. **Public Comment.** Following publication of a DEIS, a public Notice of Availability (NOA) for review is published in the FR, and a public comment period of no less than 45 days ensues. A public hearing may be conducted to provide an opportunity for interested parties to provide oral comments on the DEIS. Following the public comment period, the lead agency considers all of the comments received and prepares a final EIS (FEIS) to incorporate responses to the comments. The responses to public comments can range from major document revisions to simple acknowledgments, depending on the nature of the comment, but the FEIS must address all of the comments received on the DEIS—except when the public comments are particularly voluminous, in which case the federal agency may respond to comment summaries.
4. **Final Environmental Impact Statement.** The lead agency is required to address all substantive comments received on the DEIS and include copies of the comments in the FEIS (40 CFR 1503). The FEIS must also identify the lead agency’s preferred alternative and may identify the environmentally preferable alternative. These may be different: the preferred alternative is usually the one that the lead agency believes would best accomplish its mission and goals, whereas the environmentally preferable alternative is the one that would best promote NEPA’s goals—that is, cause the least overall harm, on balance, to physical, biological, and socioeconomic resources. There may be more than one environmentally preferable alternative; if so, each must be identified and discussed. Once the FEIS is completed and published, agencies and the public may comment on the FEIS before a final decision is made by the lead agency (40 CFR 1503.1[6]). Public comments received on the FEIS are collected and considered by the lead agency prior to making a final decision regarding which of the alternatives to implement. No decision on the action may be made by the lead agency within the 30-day period following publication of the FEIS.
5. **Record of Decision.** Following completion of the FEIS process as described above, the lead agency prepares a Record of Decision (ROD). The ROD must: (1) state what the decision was; (2) identify all alternatives considered in reaching the decision and which were considered to be environmentally preferable; and (3) state whether all practicable means to avoid or minimize environmental harm have been adopted, and if not, why not (40 CFR 1505.2). If a monitoring and enforcement program is applicable for any mitigation, it must be adopted and summarized in the ROD (40 CFR 1505.2).

1.7.2 National Oceanic and Atmospheric Administration Administrative Order 216-6

NOA 216-6 describes NOAA’s policies, requirements, and procedures for complying with NEPA and the implementing regulations issued by CEQ as codified in Parts 1500-1508 of Title 40 of the CFRs (40 CFR Parts 1500-1508) and those issued by the Department of Commerce (DOC) in Department Administrative Order (DAO) 216-6, Implementing the NEPA. NAO 216-6 incorporates the requirements of Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Also, the Order reiterates provisions to EO 12114, Environmental Effects Abroad of Major Federal Actions, as implemented by DOC in DAO 216-12, Environmental Effects Abroad of Major Federal Actions (NAO 216-6).

1.7.3 Endangered Species Act

The requirements for award of funds and issuance of permits to allow research on SSLs are described in Sections 2, 7, and 10 of the ESA. Section 7 also stipulates requirements for federal actions that may indirectly affect ESA-listed species, including issuance of permits under the MMPA that are likely to adversely affect ESA-listed species.

- The purposes of the ESA, as stated in Section 2, are to provide a means whereby the ecosystems upon which threatened and endangered species depend may be conserved³, to provide a program for the conservation of such threatened and endangered species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in Section 2(a) of the ESA.
- Section 7(a)(2) of the ESA, as amended (ESA; 16 U.S.C. 1531 *et seq.*), requires each federal agency to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of critical habitat of such species. According to Section 7 of the ESA, NMFS must ensure that any action authorized (such as permits), funded, or carried out, is not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat.
- Section 10(a)(1)(A) of the ESA specifically states that the Secretary of Commerce (Secretary) may issue permits for otherwise prohibited acts for scientific purposes or to enhance the propagation or survival of the affected species. Section 10(d) of the ESA goes on to state that NMFS may grant exceptions under Subsection 10(a)(1)(A) only if the agency finds and publishes these findings in the FR that: (1) such exceptions were applied for in good faith; (2) if granted and exercised will not operate to the disadvantage of such endangered species; and (3) will be consistent with the purposes and policies set forth in Section 2 of the ESA.

Section 4(f) of the ESA directs the responsible agency to develop and implement a Recovery Plan. The general research needs and objectives identified in the original Recovery Plan for SSLs include research to: identify habitat requirements and areas of special biological significance; identify management stocks; monitor status and trends of sea lion abundance and distribution; monitor health, condition, and vital parameters; assess and minimize causes of mortality; and investigate feeding ecology and factors affecting energetic status (NMFS 1992a).

The 2006 Draft Recovery Plan⁴ (NMFS 2006) examines the relative contribution of various factors to the current threats to SSL recovery, primarily in the western Distinct Population Segment (DPS), and develops an action plan for research and conservation measures that address the different threats. The Recovery Team was divided on the relative importance of three factors that affected the decline and recovery of the western DPS: predation by killer whales, environmental variability, and competition with fisheries. For each of these threats, some members of the Recovery Team thought the threat level was high and others thought the threat level was low. Recognizing the uncertainty regarding the magnitude and likelihood of these threats, the Draft Recovery Plan takes a precautionary approach by listing all three of these threats as “potentially high.” All other threats, including impacts of research, were rated as either medium or low.

- The Recovery Action Implementation Schedule in the Draft Recovery Plan ranks the priorities of different conservation measures and research needs. Two items received the most critical Priority 1 rating; 1) estimating population trends for pups and non-pups via aerial surveys on an annual basis, and 2) designing and implementing an adaptive management program for fisheries, climate change, and predation. Numerous other research needs and conservation measures received the next highest priority rating under the general categories of baseline population monitoring, insuring adequate habitat and range for recovery, protection from over-utilization for various purposes, protection from disease, contamination, and predation, and protection from other natural and man-made factors. Section 3.2.1.14 describes the 2006 Draft Recovery Plan in more detail.

³ The ESA defines “conserve” and “conservation” as “...to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.”

⁴ At the time this DEIS was prepared, the 2006 Recovery Plan for Steller Sea Lions was available in draft for public comment and had not been finalized or adopted by NMFS. The final version of this Recovery Plan adopted by NMFS may differ from the draft.

1.7.4 Marine Mammal Protection Act

The requirements for permits to allow research on SSLs and NFSs are described in Section 104 of the MMPA. Section 104(c)(3)(A) of the MMPA states that the Secretary may issue a permit for scientific research purposes to an applicant who submits with the permit application information indicating that the taking is required to further a bona fide scientific purpose. Section 104(c)(4)(A) states that a permit may be issued for enhancing the survival or recovery of a species or stock only with respect to a species or stock for which the Secretary, after consultation with the MMC and after notice and opportunity for public comment, has first determined that:

1. Taking or importation is likely to contribute significantly to maintaining or increasing distribution or numbers necessary to ensure the survival or recovery of the species or stock; and
2. Taking or importation is consistent (I) with any conservation plan adopted by the Secretary under Section 115(b) of this title or any recovery plan developed under Section 4(f) of the ESA for the species or stock, or (II) if there is no conservation or recovery plan in place, with the Secretary's evaluation of actions required to enhance the survival or recovery of the species or stock in light of the factors that would be addressed in a conservation plan or a recovery plan.

Both the MMPA and ESA stipulate that no provision of the statute shall take precedence over any more restrictive conflicting provision of another statute. Whereas the MMPA allows for taking of marine mammals for research that is *likely to contribute to the basic knowledge of marine mammal biology or ecology in general*, the ESA only allows for issuance of permits to conduct research that is *likely to further the conservation of the affected species*. Under the ESA “conserve” is effectively synonymous with recover since the definition of conserve indicates an ultimate goal of bringing a species to the point where listing under the ESA is no longer necessary for its continued existence. Thus, the objective of funding and issuing permits for NFS and SSL research is to allow conduct of bona fide scientific research that will be likely to contribute to recovery of those species (NMFS 2005b).

Public Law 100-711, a 1988 amendment to the MMPA, directed the Secretary of Commerce to develop a Conservation Plan on NFSs for “conserving and restoring the species or stock to its optimum sustainable population.” In 1993, NMFS developed the first NFS Conservation Plan and in May 2006 released a new Draft Conservation Plan (NMFS 2006b) with valuable input from the Tribal Governments of St. Paul Island and St. George Island, Alaska, both of which have Co-Management Agreements with NMFS for NFSs (Section 3.2.10). The 2006 Draft NFS Conservation Plan presents the latest information on population status, reviews and outlines potential causes for their decline, and provides a strategy for designing research. The Conservation Plan reviews and assesses potential factors contributing to their decline including: natural factors such as predation, parasitism, disease, and environmental change; as well as human-induced factors including subsistence harvest, direct and indirect effects of commercial fishing, marine debris, poaching, pollution, vessel and air traffic, tourism, coastal development, noise, and oil and gas activities.

Four objectives are listed in the NFS Conservation Plan, and NMFS has outlined an action plan to address each of these objectives (Section 3.2.2.13 has or more details on the objectives). The action plan presents a series of tasks that address factors NMFS believes may be contributing to NFS population decline. The implementation schedule included in the Conservation Plan provides a list of these tasks in order of priority, duration, and regularity, and is intended to act as a guide for future research.

1.7.5 Executive Order 12898: Environmental Justice

Executive Order (EO) 12898, signed by the President on February 11, 1994, and published February 16, 1994 (59 FR 7629), requires that federal agencies make achieving “environmental justice” part of their mission by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low income populations in the U.S. A number of Alaska Natives harvest SSLs and/or NFSs. As a result, coastal Native communities harvesting these animals

benefit from their continued existence. The effects of the federal action on minority populations are described in Chapter 4.

1.7.6 Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This EO, signed by the President on November 6, 2000, and published November 9, 2000 (65 FR 67249), is intended to establish regular and meaningful consultation and collaboration between federal agencies and Native tribal governments in the development of federal regulatory practices that significantly or uniquely affect their communities. This EO prohibits regulations that impose substantial direct compliance costs on Native tribal communities. In preparing this PEIS, NMFS has initiated a government-to-government consultation process with affected Native communities. On January 27, 2006, a letter was sent from NMFS to several federally recognized Native tribes within the project area inviting those governments to participate in the PEIS process, and provide some background information on both SSL and NFS research. NMFS values the contribution that Alaska Native knowledge and experience can provide NMFS with regard to marine mammals and the environment in general.

In addition to these letters, NMFS also held a teleconference on February 7, 2006 for government-to-government consultation. The purpose of the call was to brief Native communities on preparation of the PEIS and solicit comments and suggestions regarding SSL and NFS research. Three Native governments participated in this call.

1.8 Federal Permits, Licenses, and Entitlements Necessary to Implement the Proposed Action

The purpose of issuing permits and awarding funds to conduct research on threatened and endangered SSLs is to:

- promote the recovery of the species' populations such that the protections of the ESA (16 U.S.C. 1531 *et seq.*) are no longer needed, and
- contribute to the basic knowledge of SSL biology and ecology or to identify, evaluate, or resolve conservation problems, which would ultimately facilitate maintaining the species at an optimum sustainable population, as defined in the MMPA (16 U.S.C. 1361 *et seq.*).

Persons wishing to conduct research on marine mammals or ESA-listed species and seeking an exemption from the take moratoria established by the MMPA and ESA must apply for permits. In the case of marine mammals (except walrus, polar bears, sea otters, manatees, and dugong), such permits must be obtained from NMFS. Section 3.7 and Appendix D describe the statutory and regulatory requirements for obtaining a permit for research on marine mammals, including species listed as threatened or endangered. Appendix D also lists the statutory and regulatory terms and conditions with which permit holders must comply.

In general, NMFS does not require permits, licenses, and entitlements from other federal agencies in order to issue permits for scientific purposes under the MMPA or ESA. However, if NMFS' issuance of permits may adversely affect ESA-listed species, NMFS is required under section 7(a)(2) of the ESA to consult with NMFS and/or the U.S. Fish and Wildlife Service (the Services). If the Services determine that permit issuance would result in taking of listed species where such taking is incidental to the purpose of the action and would not be likely to jeopardize the continued existence of listed species, or destroy or adversely modify critical habitat, the Services may provide an exception for specified levels of "incidental take." An incidental take statement provides an exemption from the taking prohibitions of Section 9 of the ESA, but only where NMFS and/or the permit applicant can demonstrate clear compliance with the implementing terms and conditions. These terms and conditions are binding on NMFS and constitute reasonable and prudent measures intended to minimize the impact of incidental take on listed species. These measures may in turn become binding conditions of any permit issued by NMFS.

If the Services determine that NMFS' issuance of permits would jeopardize the continued existence of listed species under United States Fish and Wildlife Service (USFWS) jurisdiction, or destroy or adversely modify critical habitat, reasonable and prudent alternatives may be identified. Reasonable and prudent alternatives are

actions the Services believe would avoid the likelihood of jeopardy to the species or destruction or adverse modification of critical habitat. NMFS must agree to adopt these measures in issuing permits in order to avoid jeopardy or adverse modification.

Some research permit holders may need to secure additional federal, state, or local permits or licenses to conduct the research specified in their NMFS permit. For example, some of the proposed research could occur within the boundaries of state or national wildlife refuges or parks, such as the Alaska Maritime National Wildlife Refuge (AMNWR). The AMNWR encompasses coastline, islands, reefs, etc., extending from southeast Alaska on the border of British Columbia, to Cape Lisburne in the Chukchi Sea. Some islands within the AMNWR have restricted access in order to protect wildlife (including seabirds, SSLs, and other mammals), and special use permits must be obtained from the USFWS prior to conduct of certain activities within the refuge. Military clearance is required for access to Adak, Shemya, Amchitka, and Attu Islands along the Aleutian Chain in Alaska. San Miguel Island is located within the Pacific Missile Range (PMR) administered by the U.S. Navy and U.S. Air Force. Researchers must check in with PMR control to find out whether the range is closed or open due to missile launch activity. In addition, NMFS regulatory permit issuance criteria (50 CFR § 216.35) stipulate that, “Persons who require state or federal licenses to conduct activities authorized under the permit must be duly licensed when undertaking such activities.” This regulatory requirement is a made a condition of all NMFS permits (NMFS 2005b).