Southwest Alaska Distinct Population Segment of the Northern Sea Otter
Recovery Team Terms of Reference

Introduction

The U.S. Fish and Wildlife Service (USFWS) listed the southwest Alaska Distinct Population Segment (DPS) of the northern sea otter *(Enhydra lutris kenyoni)* as threatened on August 9, 2005 (70 FR 46366), pursuant to Section 4 of the Endangered Species Act (ESA). The listing took effect on September 8, 2005. As this DPS occurs only in Alaska, Region 7 of the USFWS has responsibility for recovery of the southwest Alaska DPS of the northern sea otter.

Section 4(f) of the ESA requires the preparation and implementation of recovery plans for all listed species. Under Section 4(f)(1)(B), each plan must contain at a minimum:

1) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species;

2) objective, measurable criteria that, when met, would result in a determination, in accordance with the provisions of this Section, that the species be removed from the list; and

3) estimates of the time required and the cost to carry out those measures needed to achieve the plan's goal and achieve intermediate steps toward that goal.

In addition, USFWS Recovery Planning Guidelines stipulate that recovery plans must include a concise summary of the current status of the species and its life history, and an assessment of the factors that led to the population decline and/or which are impeding recovery. It is also important that the plan include a comprehensive monitoring and evaluation program for gauging the effectiveness of recovery measures and overall progress toward recovery. Prior to the approval of any recovery plan, USFWS must provide public notice and an opportunity for public comment.

Section 4(f) of the ESA authorizes the Secretary (in this case, USFWS) to convene Recovery Teams to assist in the development and implementation of recovery plans. The southwest Alaska sea otter recovery team (SWAKSORT) is appointed by and acts as an advisory group solely at the behest of the Regional Director (RD) for the USFWS. The recovery team is being convened to assist the RD in developing a recovery plan, identifying priority recovery actions, and providing input and recommendations on specific recovery issues at the RD's request. The ESA exempts Recovery Teams from the Federal Advisory Committee Act (FACA).

For more information on the USFWS approach toward recovery planning for the southwest Alaska DPS of the northern sea otter, please refer to the recovery outline for this DPS (Appendix A.)

Purpose and Objectives

The overall purpose of this document is to provide operational protocols for serving on the SWAKSORT. More specifically, the Terms of Reference have been developed with the following objectives in mind: 1) to specify the functions and composition of the recovery team; 2) to define the team's roles and responsibilities; and 3) to gain the active commitment of all team members to work toward the goal of achieving full recovery of the southwest Alaska DPS of the northern sea otter.

Team Functions and Structure

The general function of the SWAKSORT is to advise the RD on issues concerning the conservation and recovery of the threatened DPS, particularly with regard to the development of a recovery plan. Recovery Teams are strictly advisory bodies; final decisions are the sole responsibility of the USFWS.

In accordance with national policy, recovery team membership is based on the expertise and abilities needed to advance southwest Alaska sea otter recovery and achieve recovery goals. In addition to relevant expertise, all team members must be committed to the recovery of the species in a timely manner. Additional considerations include an ability to work constructively in team situations and the availability of the individual for attending to team business. It should be noted that the composition of the team may change if and when team functions change.

Team Leader

The USFWS will appoint a team leader for the SWAKSORT. The team leader is a regular member of the recovery team with the following responsibilities: 1) serve as a conduit for recovery team communication with the USFWS in conjunction with the Agency Lead; 2) lead and facilitate team meetings; 3) coordinate the various writing and other assignments for drafting the recovery plan; and 4) keep the team moving forward and making steady progress. Although the team leader guides the overall direction of the team, he/she is not a decision-maker for the team.

Agency Lead

The USFWS will appoint an Agency Lead to the SWAKSORT. The USFWS will oversee and coordinate all recovery team activities through the Lead and will be responsible for: 1) defining team functions and establishing schedules for completing products (with team input and discussion); 2) transmitting team recommendations to other agencies and organizations, as appropriate; 3) organizing and scheduling team meetings; and 4) overseeing team logistics and approving meeting and travel requests. The Agency Lead will work closely with the Team Leader on all aspects of the recovery planning process.

Recovery Team Subgroups

The structure of the SWAKSORT has three components: 1) the Writing; 2) Stakeholder; and 3) Scientific Advisory groups. The Team Leader and Agency Lead will work with all three

groups during the recovery planning process. The **Writing Group** will consist of up to six experts in the field of wildlife biology and conservation. The primary function of the Writing Group will be to write the draft recovery plan, in coordination with the Stakeholder and Scientific Advisory Groups.

Within the overall team structure, the **Stakeholder Group** will consist of up to four individuals and/or representatives of organizations who have interests in the recovery of sea otters in southwest Alaska, or have interests in, or may be affected by, particular actions taken to recover the DPS. The functions of the Stakeholder Group are to provide input to the Writing Group for consideration when drafting the recovery plan, and to provide feedback on interim drafts of the plan.

The purpose of the **Scientific Advisory Group** will be to provide general scientific advice to the Writing Group and to review the content of the recovery plan as it is drafted. Inclusion of a Scientific Advisory Group within the structure of the SWAKSORT underscores a commitment to ensuring the use of sound science in the recovery planning process.

Additionally, if needed and in coordination with the RD, the SWAKSORT may establish working groups to advise the team on specific issues. Each working group will be led by a qualified member of the SWAKSORT to ensure that its input is consistent with the team's recovery objectives. Working groups will be exempt from the requirements of FACA as long as they report to the recovery team. As necessary, the recovery team may also draw on the expertise of individuals outside the formal team structure.

Term of Service

The USFWS has convened the SWAKSORT primarily for the specific purpose of preparing a draft recovery plan. It is the intent of the USFWS to have a draft recovery plan available for public review within 18 months from the date of the first team meeting, and a final recovery plan completed within 30 months. Therefore, the period of service for participation in the SWAKSORT will be 3 years. Although the recovery team has been convened for this period, it should also be noted that the RD retains the prerogative to disband or extend the team at any time. In addition, individual members may be removed from the team if they fail to serve in a contributory and constructive way. The RD has sole discretion in appointing or dismissing recovery team members and in determining whether to continue or discontinue using the SWAKSORT as an advisory group.

Team Meetings

The full SWAKSORT will convene at least once each year to review the status of the recovery effort and maintain active coordination with all recovery partners. The Writing Group may meet either with or without the Stakeholder and Scientific Advisory groups. The recovery team or particular working groups may also meet more frequently if necessary. Meetings of the full recovery team will be open to the public if facilities allow.

USFWS Oversight

The RD will oversee the SWAKSORT by: 1) convening and, if and when appropriate, disbanding or restructuring the recovery team and working groups; 2) appointing, replacing, and, if needed, removing individual team members; 3) defining the team's operating procedures (through these Terms of Reference); 4) approving recovery plan updates, revisions, or any other official recovery documents; and 5) identifying questions and issues that need the team's consideration.

The USFWS will provide administrative support, such as photocopying, procurement of supplies, and expenses related to printing and distributing materials. In addition, the USFWS may contract for services to the recovery team or to outside experts for specific products or to facilitate the drafting and assembling of the recover plan or other documents for the team's use.

Once submitted to the USFWS, the draft recovery plan is subject to change, and may be wholly or only partially approved. If any part of the plan is not approved by USFWS, the rationale for that decision will be provided to the team. The final recovery plan will be a government document and will contain an acknowledgement of the recovery team's role in its preparation.

Team Conduct

All members are expected to conduct themselves and team business in accordance with the goal of recovering the southwest Alaska DPS of the northern sea otter and as described by these Terms of Reference. Whenever possible, recommendations to the RD will be made through a consensus approach. However, when appropriate, the Team Leader may poll individual team members as an alternative to group recommendations. On rare occasions, voting may be used to arrive at a team recommendation; however, this approach is not preferred and will be used judiciously, and dissenting positions will be put on record.

The SWAKSORT members must avoid conflicts of interest and other ethical problems in accordance with the following guidelines (April 2, 1992, Department of Commerce, Office of General Council):

1. Members shall/must disqualify themselves from advising on a matter which has direct and predictable affect on their personal financial matters, those of a client, or those of a company by which they are employed, apart from matters which are inherent in their employment or outside affiliation.

2. Members shall not solicit business for themselves or their firms or seek an economic advantage based on their position on the Recovery Team.

3. Members shall hold any non-public information obtained as a result of their services on the Recovery Team in confidence and ensure that it is used exclusively for official purposes. Members should not use or permit the use of such information for their own private gain or the gain of another person.

4. Members shall not use the resources available to the Recovery Team for the purposes of assisting a political campaign, or for any campaign business.

In addition, for the protection of recovery team members and in the best interest of the southwest Alaska sea otter recovery, the recovery team should be mindful of a number of other situations that it should avoid. Specifically, it is *inappropriate* for members of the recovery team to do the following:

1. Represent themselves as speaking for the USFWS.

2. Distribute draft plans or other internal documents.

3. Act through the news media, conservation organizations, State or Federal legislatures, or other parties to influence agency decisions.

4. Act as an official consulting group to anyone other than the RD, or accept other responsibilities outside its planning and implementation assistance roles without the prior and express concurrence of the RD.

5. Interject itself in litigation or regulatory actions.

6. Directly contact parties who may be adversely affecting the species about regulatory requirements or conservation needs; this is the responsibility of the USFWS. The team should bring such actions to the attention of the RD.

Team Business

Costs of SWAKSORT management will be assumed by the USFWS Region 7 (Alaska). Within the constraints of appropriations, the USFWS will provide funds for expenses of recovery team travel and meetings, however, the USFWS will not pay salaries or honoraria to members or advisors. For team members who are employees of governmental agencies, the agencies are expected to pay time and travel costs for their respective employees. Non-governmental team members' time contribution is voluntary. The USFWS will provide administrative assistance such as photocopying, procurement of supplies, and expenses related to the printing and distribution of materials.

Communications

Lines of communication between the SWAKSORT and the USFWS are direct and will be conducted between the Recovery Team Leader and the RD (through the agency lead unless dictated otherwise by special circumstances). It is the responsibility of the Recovery Team Leader to facilitate open and constructive discussion of ideas and information.

The USFWS Lead will prepare minutes of each meeting. Accomplishment reports may be presented at team meetings and should be included in the minutes. When differences of opinion occur, the minutes will include both the majority and minority opinion(s). The USFWS will

establish a web site for the SWAKSORT. Meeting agendas and minutes will be posted on the web site when available.

Official USFWS letters to the team will be directed to the team leader, who will then disseminate them to team members. Any documents for consideration of the team will be provided to the team leader, who will distribute them to team members as appropriate.

The recovery team may inform interested parties of its activities, as appropriate. When outside contacts occur, the team must accurately describe its relationship to the USFWS.

Miscellaneous

These Terms of Reference will remain in effect as long as the SWAKSORT is in place or until superseded by another written document. They may be modified if the need arises and at the discretion of the RD. This document will be distributed to all prospective team members prior to finalizing their appointments, and it will be reviewed at recovery team meetings as needed. Agreeing to serve on the team will be construed as a willingness to abide by all conditions set forth in the Terms of Reference.

Appendix A. Recovery Outline for the Southwest Alaska Distinct Population Segment of the northern sea otter (*Enhydra lutris kenyoni*).

U.S. Fish & Wildlife Service

Recovery Outline for the Southwest Alaska Distinct Population Segment of the Northern Sea Otter (*Enhydra lutris kenyoni*)

Photo courtesy of Randall Davis, Texas A&M University

October 2005

Common Name	Northern Sea Otter
Scientific Name	*Enhydra lutris kenyoni*
Listing Status and Date	Threatened; September 8, 2005 (70 FR 46366)
Lead Agency/Region	U.S. Fish and Wildlife Service, Region 7
Lead Field Office	Marine Mammals Management 1011 East Tudor Road, MS 341 Anchorage, Alaska 99503 (907) 786-3800
Lead Biologist	Douglas M. Burn, Marine Mammals Management (907) 786-3807, Douglas_Burn@fws.gov

Purpose of the Recovery Outline: This document lays out a preliminary course of action for recovery of the southwest Alaska DPS of the northern sea otter. It is meant to serve as interim guidance to direct recovery efforts and inform consultation and permitting activities until the comprehensive draft recovery plan has been completed. Recovery outlines are intended primarily for internal use by the U.S. Fish and Wildlife Service, and formal public participation will be invited upon the release of the draft recovery plan. However, we will consider any new information or comments that members of the public may wish to offer in response to this outline during the recovery planning process. For more information on Federal recovery efforts for the southwest

Alaska DPS of the northern sea otter, or to provide additional comments, interested parties may contact the lead biologist for this species, Douglas Burn, at the above address, telephone number, or e-mail.

Scope of Recovery and Available Information: The scope of this recovery effort is distinct population segment (DPS) for a single species. The data history of the southwest Alaska DPS of the northern sea otter is fragmentary, with surveys occurring in different areas, using different methods, at different time intervals. Within each study area, recent surveys were conducted using methods similar to those used in the past, so that counts or estimates would be as comparable as possible with baseline information for that area (Doroff et al. 2003; Estes et al. 2005; Burn and Doroff 2005). In February 2005, the Service co-hosted an Alaska sea otter population monitoring workshop to develop a monitoring plan to assess the status and trend of this DPS in the future.

The major data gap with respect to the southwest Alaska DPS of the northern sea otter concerns the cause of the population decline. Although the weight of available evidence suggests that increased predation by killer whales (*Orcinus orca*) may be responsible for the decline in the Aleutians (Estes et al. 1998; Springer et al. 2003), similar studies have not been conducted in other areas within the range of the DPS. Additional research into current and future threats, especially the cause of the decline, will be required in order to guide recovery actions.

OVERVIEW

Species Description and Life History

The sea otter is one of the smallest species of marine mammal in the world. Adult males average 130 centimeters (cm) (4.3 feet (ft)) in length and 30 kilograms (kg) (66 pounds (lbs)) in weight; adult females average 120 cm (3.9 ft) in length and 20 kg (44 lbs) in weight (Kenyon 1969). Sea otters lack the blubber layer found in most marine mammals and depend entirely upon their fur for insulation (Riedman and Estes 1990). Their pelage consists of a sparse outer layer of guard hairs and an underfur that is the densest mammalian fur in the world, averaging more than 100,000 hairs per square centimeter (645,000 hairs per square inch) (Kenyon 1969).

Sea otters have a relatively high rate of metabolism as compared to land mammals of similar size (Costa 1978; Costa and Kooyman 1982, 1984). To maintain the level of heat production required to sustain them, sea otters eat large amounts of food, estimated at 23–33 percent of their body weight per day (Riedman and Estes 1990). Sea otters are carnivores that primarily eat a wide variety of benthic (living in or on the sea floor) invertebrates, including sea urchins, clams, mussels, crabs, and octopus. Sea otters generally occur in shallow water areas near the shoreline. They primarily forage in shallow water areas less than 100 meters (m) (328 feet (ft)) in depth, and the majority of all foraging dives take place in waters less than 30 m (98 ft) in depth (Bodkin et al. 2004).

For additional life history information, consult the final listing rule (70 FR 46366).

Historical and Current Population Status

Historically, sea otters occurred throughout the coastal waters of the north Pacific Ocean, from the northern Japanese archipelago around the north Pacific rim to central Baja California, Mexico. Prior to commercial exploitation, the range-wide estimate for the species was 150,000–300,000 individuals (Kenyon 1969, Johnson 1982). Commercial hunting of sea otters began shortly after the Bering/Chirikof expedition to Alaska in 1741. Over the next 170 years, sea otters were hunted to the brink of extinction first by Russian, and later by American fur hunters.

Sea otters became protected from commercial harvests under the International Fur Seal Treaty of 1911, when only 13 small remnant populations were known to still exist. The entire species at that time may have been reduced to only 1,000–2,000 animals. Two of the 13 remnant populations (Queen Charlotte Island and San Benito Islands) subsequently became extinct (Kenyon 1969, Estes 1980). The remaining 11 populations began to grow in number, and expanded to recolonize much of the former range. Six of the remnant populations (Rat Islands, Delarof Islands, False Pass, Sandman Reefs, Shumagin Islands, and Kodiak Island) were located within the bounds of what we now recognize as the southwest Alaska population of the northern sea otter. All 6 of these remnant populations grew during the first 50 years following protection from further commercial hunting. At several locations in the Aleutian Islands, the rapid growth of sea otter populations appears to have initially exceeded the carrying capacity of the local environment, as sea otter abundance at these islands then declined, either by starvation or emigration, eventually reaching equilibrium density (Kenyon 1969).

The southwest Alaska DPS ranges from Attu Island at the western end of Near Islands in the Aleutians, east to Kamishak Bay on the western side of lower Cook Inlet, and includes waters adjacent to the Aleutian Islands, the Alaska Peninsula, the Kodiak archipelago, and the Barren Islands (Figure 1). Calkins and Schneider (1985) summarized estimates from survey data collected in southwest Alaska. Combining estimates for various survey areas, the sea otter population in the area encompassing the range of the southwest Alaska population was believed to have numbered between 94,050–128,650 as of 1976. Our current estimate of the size of the southwest Alaska population of the northern sea otter, is 41,865 animals, which is 52,185–86,785 lower (55–67%) less than the 1976 estimate. Some areas within the DPS (such as the Aleutian archipelago) have declined by over 90% (Doroff et al. 2003; Estes et al. 2005).

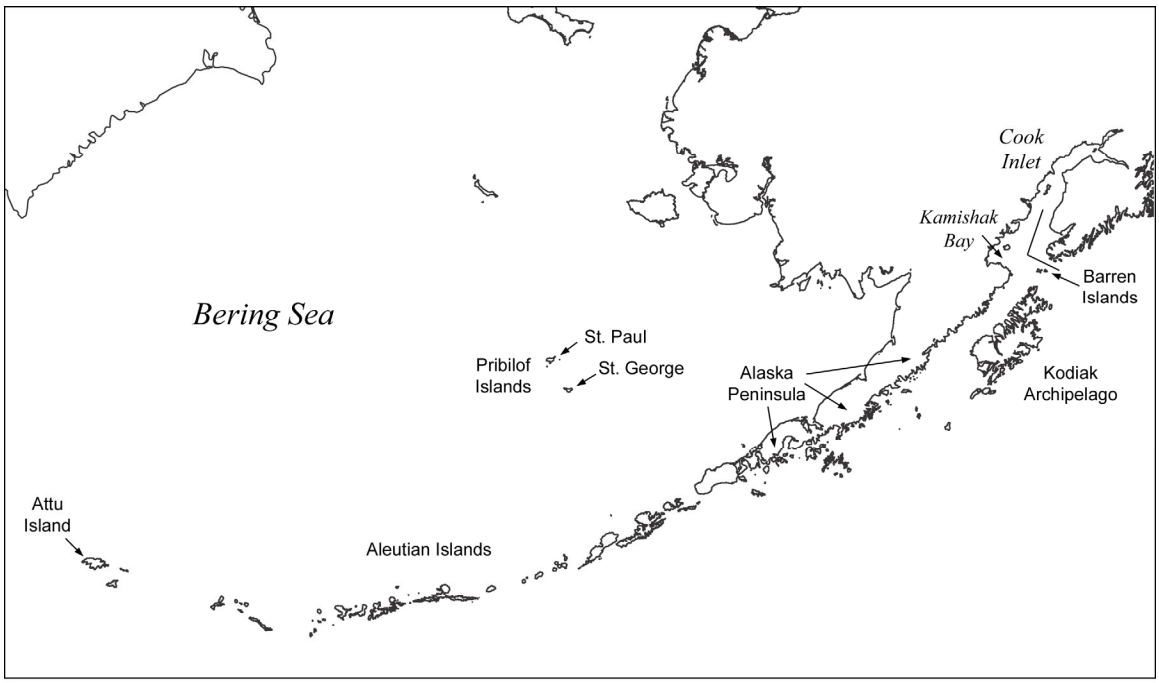

Figure 1. Range of the southwest Alaska DPS of the northern sea otter.

For additional information on population status, consult the final listing rule (70 FR 46366).

Habitat Description and Landownership

Much of the marine habitat of the sea otter in southwest Alaska is characterized by a rocky substrate. In these areas, sea otters typically are concentrated between the shoreline and the outer limit of the kelp canopy (Riedman and Estes 1990), but can also occur further seaward. Sea otters also inhabit marine environments that have soft sediment substrates, such as Bristol Bay and the Kodiak archipelago. As communities of benthic invertebrates differ between rocky and soft sediment substrate areas, so do sea otter diets. In general, prey species in rocky substrate habitats include sea urchins, octopus, and mussels, while in soft substrates, clams dominate the diet.

Due to their dependence on shallow water feeding areas, most sea otters in Alaska occur within State-owned waters, which include the area from mean high tide to 4.8 km (3 miles) offshore, and any that occur further offshore are within the U.S. Exclusive Economic Zone, which extends 370.4 km (200 nautical miles) seaward from the coast of the United States. The National Oceanographic and Atmospheric Administration Fisheries division (NOAA Fisheries) has recently designated the Aleutian Islands Habitat Conservation Area which encompasses more than 274,000 square nautical miles.

While sea otters typically rest in the water, they can also haul out and rest on shore (Kenyon 1969). The majority of adjacent coastal lands within the range of the southwest Alaska population of the northern sea otter are part of the Service's National Wildlife Refuge (NWR) system, including Alaska Maritime NWR, Izembek NWR, Alaska Peninsula/Becharof NWR, and Kodiak NWR. The National Park Service also has large

parcels of coastal lands in southwest Alaska, including Katmai National Park and Aniakchak National Monument and Preserve. The vast majority of remaining coastal lands in southwest Alaska are owned by the State of Alaska and Alaska Native Corporations. Privately owned lands constitute a very minor proportion of coastal lands in southwest Alaska.

Summary Biological Assessment

Although the southwest Alaska DPS of the northern sea otter has declined by over 50% in the past 20 years, it has not been extirpated from any portion of its range. The remaining population is distributed as something of a mosaic, occurring throughout much of southwest Alaska at reduced densities, with isolated areas of high concentrations. With the exception of these high concentration areas, the population appears to be well below the carrying capacity of the available habitat. Availability and quality of habitat does not appear to be a limiting factor to future recovery.

Recent survey information indicates that the decline continues in the Aleutian archipelago and Pavlof and Shumagin island groups, but not the Kodiak archipelago. In the 20th century, this species recovered from low numbers once they had been afforded protection from further hunting, therefore the potential for future recovery exists. The basic biology of the species is fairly well understood, however, the cause of the current decline is not. From a recovery planning context, the cause of the current decline may or may not pose a future threat to conservation of the DPS. Similarly, factors which may not have been involved in the decline to date may become future threats to conservation at reduced population levels. Therefore, additional research to identify current and future threats, including, but not limited to, the cause of the decline is a high priority to help guide recovery activities.

Listing Factors/Primary Threats to the Species

As identified in the final rule (70 FR 46366), the primary threats to the southwest Alaska DPS of the northern sea otter may be increased predation by killer whales, and increased vulnerability to catastrophic events such as disease epidemics and oil spills. A description of each of these threats is presented below; each is classified according to the five listing/delisting factors identified in section 4 of the Endangered Species Act ("Act"; 16 USC 1531 *et seq*.).

The present or threatened destruction, modification, or curtailment of its habitat or range (Factor A)

***Oil Spills* –** sea otters are currently distributed at low densities throughout much of the range of the DPS, with several isolated areas of high concentrations. Catastrophic events such as oil spills, although not a common occurrence, could remove significant portions of the remaining sea otter population and destroy or adversely modify sea otter habitat.

Overutilization for commercial, recreational, scientific, or educational purposes (Factor B)
Subsistence Harvest – recent levels and geographic distribution of subsistence harvest do not appear to be a threat, however the impact of the subsistence harvest will continue to be evaluated in light of future population levels.

Disease or predation (Factor C)
Disease – the remaining high concentrations of sea otters may be more susceptible to disease epidemics that could remove significant portions of the remaining population.

Predation – although the cause of the decline is not definitively known, predation by killer whales is the most plausible hypothesis at this time.

Inadequacy of existing regulatory mechanisms (Factor D)
Marine Mammal Protection Act – although sea otters have been protected under the Marine Mammal Protection Act since 1972, the southwest Alaska DPS has declined by over 50% during the past 20 years, suggesting additional protections are necessary.

Other natural or manmade factors affecting its continued existence (Factor E)
Low Sea Otter Densities – recent surveys indicate the sea otter population in the Aleutians continues to decline, and now occurs at extremely low densities throughout the archipelago. At such low densities, it is possible that Allee effects, where animals have difficulty finding suitable mates, may occur.

Summary Threats Assessment
There is considerable uncertainty regarding the cause of the sea otter decline in southwest Alaska, therefore the most important threat to recovery of the population may as yet be unknown. It is possible that the cause of the decline itself is no longer a threat, and that factors which were not responsible for the decline to date may pose threats to conservation in the future. Without a thorough understanding of the cause of the decline and future threats, it will be difficult to identify recovery activities that will promote conservation of the DPS.

The most likely cause of the sea otter decline, predation by killer whales, is also the most intransigent. The killer whale predation hypothesis posits that transient marine mammal-eating killer whales increased their predation on sea otters in response to decreases in their preferred prey species, Steller sea lions and harbor seals (Estes et al. 1998; Springer et al. 2002). The apparent response to this increased predation pressure is that the remaining sea otters are found extremely close to shore and in sheltered habitats that may serve as refugia from killer whales. The current level of predation and its impact on the recovery of the sea otter population is unknown. At present, there are areas within the southwest Alaska DPS that have not shown evidence of a population decline, so it is possible that the range of this threat is less than the range of the DPS as a whole.

Killer whales are also protected from take by the Marine Mammal Protection Act (MMPA), so direct management actions, such as predator control, may not be practical. We note that the western stock of Steller sea lions that overlaps with the southwest Alaska DPS of the northern sea otter is already listed as endangered under the ESA, and recovery planning for this species is ongoing. Recovery of pinniped populations in the Bering Sea may reduce the predation pressure on sea otters.

The threat of extremely low densities may require the most immediate response, which should occur before sea otters become extirpated from portions of the range of the DPS. The southwest Alaska DPS contains the descendents of 6 remnant colonies that survived the commercial fur harvests of 1741-1911. Loss of sea otters from a portion of the range may also result in the loss of genetic diversity in the subspecies *E. lutris kenyoni*. Efforts to preserve the remaining sea otters in these low density areas and enhance the genetic diversity of the population should be explored.

Conservation Efforts

Based on the results of the April 2000 sea otter survey in the Aleutian Islands, we added sea otters in the Aleutians to our list of candidate species in August of 2000 (65 FR 67343). Additional sea otter surveys along the Alaska Peninsula and Kodiak archipelago, and the identification of multiple stocks of sea otters in Alaska prompted us to expand the candidate species designation on June 3, 2002, to include the geographic range of the southwest Alaska stock of the northern sea otter. Notification of this change was included in our June 13, 2002, notice of review of candidate species (67 FR 40657). On February 11, 2004, we published the proposed rule to list the southwest Alaska DPS of the northern sea otter as threatened (69 FR 6600). The final rule to list the DPS was published on August 9, 2005 (70 FR 46366)

In April 2002, the Service hosted a workshop to review available information about the sea otter decline in southwest Alaska. In April 2004, Service staff attended a similar workshop hosted by the Alaska SeaLife Center in Seward, Alaska. The focus of both workshops was to identify future research needs and priorities for the southwest Alaska DPS. The Service also co-hosted an Alaska sea otter population monitoring workshop in February 2005 with the Alaska SeaLife Center and the U.S. Geological Survey (USGS)

The Service and USGS have continued population monitoring efforts in southwest Alaska in order to document current sea otter population trends. The Service has also entered into grant agreements annually since Fiscal Year 2003 with the Alaska SeaLife Center to conduct research into the cause of the sea otter decline in southwest Alaska.

Summary Conservation Assessment

A limited amount of research has been conducted into determining the cause of the sea otter decline. Most of this research has occurred in the western and central Aleutians, and similar studies have not been conducted in other parts of the range of the southwest Alaska DPS. Although the Service has hosted and attended workshops to identify future research needs, availability of funding has been a limiting factor. Additional research

into current and future threats to the DPS, especially the cause of the decline, is perhaps the primary need at this time.

Virtually no direct management of the species and its habitat has occurred to date. As sea otters fall under the authority of the MMPA, they are protected from most forms of take. Section 118 of the MMPA provides an exemption for incidental take in commercial fisheries, however this exemption would not extend to sea otters from the listed DPS. Although not considered to be a major threat to conservation, development of a Habitat Conservation Plan may help mitigate the impact of incidental take in commercial fisheries.

Both the MMPA and the ESA contain exemptions for subsistence harvest by Alaska Natives. While the magnitude and geographic distribution of the harvest does not appear to be a threat at this time, the Service will continue to monitor the harvest relative to the remaining sea otter population. Although the Service does not believe that regulation of the subsistence harvest is currently warranted, Alaska Natives can develop harvest guidelines that may enhance the conservation of the DPS.

This species has an active conservation constituency that includes Defenders of Wildlife, Center for Biological Diversity, and the Sea Otter Defense Initiative (a project of Earth Island Institute). Roughly 99% of the public comments received on the listing proposal were from conservation organizations and their membership.

Summary Assessment of Recovery Status
The recovery potential of the southwest Alaska DPS is low. With the exception of the Kodiak archipelago and the Near Islands, recent surveys indicate the population continues to decline throughout much of the range. The three key recovery needs are: 1) additional research into current and future threats to recovery, especially the cause of the decline; 2) continued population monitoring to identify areas where otters may become extirpated in the near future; and 3) efforts to offset the extremely low densities of sea otters throughout much of the range. Additional impacts to sea otters in areas of low densities should be avoided to the greatest degree practicable.

Preliminary Recovery Strategy

Recovery Priority Number
The southwest Alaska DPS of the northern sea otter is assigned a recovery priority number of 6 on a scale of 1C (highest) to 18 (lowest; the "C" indicates the potential for conflict with human economic activities), based on the high degree of threat, a low potential for recovery as stated above, and its status as a distinct population segment (USFWS 1983a,b).

As the cause of the decline and future threats to recovery are unknown, we consider the degree of threat to be high. Similarly, the unknown nature of current and future threats gives this DPS a low recovery potential. Given the remote location of the DPS, we believe there is little to no potential for conflict with construction or other development

projects, or other forms of economic activity. The major economic activity in southwest Alaska is commercial fishing, and an independent analysis by the Alaska Department of Fish and Game concluded that the potential for interaction with fisheries is low (Funk 2002).

Recovery Goal and Objectives

The goal of the recovery program is to establish a framework within which recovery actions are undertaken to ensure the long-term survival of the southwest Alaska DPS of the northern sea otter and to control or reduce threats to the species to the extent that it no longer requires the protections afforded by the Endangered Species Act and therefore warrants delisting. Although subject to change, full recovery of the southwest Alaska DPS is currently envisioned as a cessation of further population declines with viable numbers of sea otters present throughout the current range of the DPS. Threats to the species will be adequately identified, and will have sufficiently abated to ensure the high probability of the survival of the southwest Alaska DPS for at least 100 years.

Initial Action Plan

The goal of the initial phase of recovery is to identify the cause of the decline and/or current and future threats to the southwest Alaska DPS, and eliminate or minimize these threats where possible. The primary objectives of the initial phase of recovery will be to: 1) conduct research to identify current and future threats, which includes determination of the cause of the decline; 2) conduct surveys to monitor population trends; and 3) eliminate or minimize future threats to the population. As some avenues of research may be limited by low sea otter densities, research activities should begin immediately while there is still time to conduct studies. The Service should be responsible for monitoring population trends, and should be an integral part of any research and enhancement activities. Objective 3 will be accomplished using the full range of protection tools available, including Section 7 consultations, incidental take requirements, and partnerships.

A secondary objective of the initial phase of recovery involves outreach with stakeholders, as heightened awareness through education may play a role in generating voluntary protection actions, such as self-regulation of the subsistence harvest.

Recovery Actions

- **Appoint Recovery Team** – the Service has already convened and/or attended several workshops to address research and monitoring needs. Several attendees of these workshops are potential recovery team members, and are already familiar with the background information regarding the sea otter decline.

- **Prepare Recovery Plan** – the Recovery Team would prepare a draft recovery plan within 18 months after listing takes effect.

- **Continue Population Monitoring** – the Service will coordinate continued population monitoring of the southwest Alaska DPS of the northern sea otter. Potential collaborators include the U.S. Geological Survey.

- **Conduct Research to Determine Current and Future Threats** – it is not known if the initial cause of the decline continues today. Additional research is needed to determine current and future threats to conservation. Potential research collaborators include the U.S. Geological Survey, Alaska SeaLife Center, Alaska Department of Fish and Game, and University of Alaska.

- **Implement Recovery Actions as Necessary** – pending a better understanding of current and future threats, recovery actions should be taken to prevent the extirpation of sea otters from areas within the southwest Alaska DPS. While sea otters can recolonize areas of vacant habitat through natural or translocation-assisted range expansion, preventing extirpation in the first place should be a high priority.

Preplanning Decisions

Planning Approach
Recovery team with Writing, Stakeholder, and Scientific Advisory Groups. The Writing Group will consist of a small number of individuals with the necessary expertise to write a recovery plan, thereby minimizing costs and logistical complexity associated with large meetings. The roles and responsibilities of each group will be clearly stated in the terms of reference for the recovery team.

Information Management
The administrative record will be housed at the U.S. Fish and Wildlife Service, Marine Mammals Management Office in Anchorage, Alaska.

Recovery Plan Schedule

Regional Office Review Draft	15 months after listing takes effect
Public Review Draft	3 months after delivery to RO
Public Comment Period	60 days following release of draft plan
Final Recovery Plan	1 year after release of public review draft

Stakeholder Involvement

Key stakeholders:
- Alaska Natives who hunt sea otters for subsistence
- Commercial fishermen who operate within the range of the southwest Alaska DPS
- Conservation organizations
- Communities within the range of the southwest Alaska DPS
- The State of Alaska

Stakeholder Involvement Strategy

The Stakeholder Group will provide input to the Writing Group. The Group will be informed about the process the Writing Group will follow, and will be given the opportunity to provide input prior to the initiation of the initial writing phase. The Writing Group will accept input from the Stakeholder Group at any time during the writing process. The Stakeholder Group will also have the opportunity to review and comment on drafts of the recovery plan prior to public release.

Approved:

Acting Regional Director, Region 7
U.S. Fish and Wildlife Service

4 October 05
Date

Citation

U.S. Fish and Wildlife Service. 2005. Recovery Outline for the Southwest Alaska DPS of the northern sea otter. Anchorage, Alaska. 13 pp.

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