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## United States Department of the Interior

### U.S. FISH AND WILDLIFE SERVICE

Anchorage Fish and Wildlife Field Office

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#### Memorandum

To: Chief, Division of Management Authority, U.S. Fish and Wildlife Service,  
Washington, D.C.

From: Field Supervisor, Anchorage Fish and Wildlife Field Office, U.S. Fish and  
Wildlife Service, Anchorage, Alaska 

Subject: Intra-Service Biological Opinion and Conference Opinion on the Re-issuance of  
the Alaska Sealife Center Recovery Permit and Letter of Authorization  
(Consultation Number 07CAAN00-2016-F-0261)

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion and conference opinion based on our review of the Service's Division of Management Authority's (DMA) proposed re-issuance of the Alaska Sealife Center's (ASLC) Recovery Permit and accompanying Letter of Authorization (LOA) to allow harassment of marine mammals pursuant to the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq; MMPA), and associated effects on the federally threatened Southwest Alaska Distinct Population Segment (DPS) of northern sea otters (*Enhydra lutris kenyoni*) and the Pacific walrus (*Odobenus rosmarus*), a candidate for listing, in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq; ESA). The ASLC previously worked under MMPA LOA-837414 and ESA permit number MA837414. We received your July 15, 2016, request for formal consultation on July 15, 2016.

We have based this biological opinion on information that accompanied your July 15, 2016, request for consultation and current species information. We can make available a record of this consultation at the Anchorage Fish and Wildlife Field Office.

This biological opinion and associated Incidental Take Statement are only valid when paired with an accompanying LOA to allow harassment of marine mammals pursuant to the MMPA.

## BIOLOGICAL OPINION

### DESCRIPTION OF THE PROPOSED ACTION

The U.S. Fish and Wildlife Service's (Service) Division of Management Authority (DMA) is proposing to renew and re-issue the Alaska Sealife Center's (ASLC) authorizations for the rescue, rehabilitation, and release of stranded northern sea otters and Pacific walrus for a five-year period. A Letter of Authorization (LOA) would be issued under sections 109(h) and 112(c) of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq; MMPA), to authorize activities related to the rescue (including temporary capture, possession, transport, and transfer), rehabilitation and release of northern sea otters and Pacific walrus. Due to the dual protections afforded the Southwest Alaska Distinct Population Segment (DPS) of northern sea otter under the MMPA and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq; ESA), an ESA Section 10(a)1(A) permit for take would also be issued, for the purposes of enhancement of the survival and recovery of listed sea otters. Under these authorizations, the ASLC would be authorized for the take of live, stranded northern sea otters and Pacific walrus for the primary purpose of ensuring their appropriate rescue, rehabilitation, disposition and release, and to authorize the take of stranded northern sea otters and Pacific walrus that have died during rescue, rehabilitation, and release activities. Such takings would allow for the utilization of stranded northern sea otters and Pacific walrus or their parts under the authority of the Service.

The ASLC activities that would be covered by the section 10(a)1(A) permit and LOA include recovery of sick and stranded sea otter adults and pups, walrus adults, and walrus calves. Dependent pups/calves would not be rescued, unless they are stranded alone or stranded along with their mothers. Animals targeted for rescue or rehabilitation would include only those that are dead, sick, injured, stranded, or otherwise not expected to survive without human intervention.

Recovered dead animals would be used for scientific research into the causes and prevention of mortality. Recovered live animals would be treated, rehabilitated, and if possible tagged and released. Sick and injured animals that have been determined by the attending veterinarian to be in such moribund condition that the animal is unlikely to survive in the wild or in captivity with human intervention may be humanely euthanized under the advice of the attending veterinarian (see conditions below). Following the death (or euthanasia) of each Pacific walrus and sea otter, a necropsy would be conducted by a qualified veterinarian pathologist and a report submitted to the Service within 30 days. Animals that cannot be expected to survive in the wild would remain captive and be used for education and investigation into new rehabilitation protocols. The ASLC would include an education component to the rehabilitation program to help educate the public of species biology and conservation.

No intentional harassment would occur. If an animal rescue takes place in a social setting (i.e., an injured subject in a haulout area), temporary social disturbance could occur. Efforts would be made to assure the subject animal is isolated as quickly as possible from non-target animals. If it is judged by the rescue team that disturbance to other animals is occurring, efforts will cease until non-target animals have departed the area of their own volition. At that time, efforts to isolate the subject animal would resume.

Because the rescue activities would require physical handling of sick and injured animals, would include attachment of external tags or insertion of tags into animals' bodies, and would sometimes require euthanasia of animals, such activities may affect and are likely to adversely affect individual sea otters. Such activities may affect but are not likely to jeopardize the Pacific walrus.

The section 10(a)1(A) permit and LOA would be strictly conditioned to minimize injury to sea otters and walrus rescued and rehabilitated under the authority of the permit and LOA.

1. All authorized activities will be initiated and conducted in consultation with the Service's Marine Mammals Management Office.
2. All authorized activities will be performed by the ASLC's institution biologists or individuals extensively trained in the appropriate techniques and possessing adequate proficiency such that they will not cause undue injury or death of sea otters or walrus.
3. An adequate number of attending personnel will be present during rescue activities, one of which will be ASLC personnel with extensive training and previous capture/rescue experience.
4. Tangle nets, dip nets, and underwater capture methods will not be used unless another method is not feasible and may not be set if weather or sea state is, or is forecast to be, such that the recovery of entangled animals may be impeded. Nets must be monitored at least every 2 hours when visibility is poor.
5. Disturbance of animals will be minimized by exercising caution when approaching and capturing animals, particularly mother-pup/calf pairs, and the approach will be halted if there is evidence that the activity may be interfering with pair bonding, nursing, reproduction, feeding or other vital functions.
6. To minimize the chance of mother-pup/calf separation, mother and pup/calf will be captured/rescued together and released simultaneously following the recovery period.
7. All transport of animals will be by Permittee personnel, investigators, or designees and in accordance with Animal and Plant Health Inspection Service (APHIS) transport standards [Humane and Healthful Transport of Marine Mammals (7 U.S.C. 2131-2159; 9 CFR 3, Part E)].
8. All medical care of any northern sea otter or Pacific walrus held at the rehabilitation facility will be under the direction of a licensed veterinarian experienced or trained in sea otter and walrus medicine, and the care must meet current veterinary and professional standards. Surgical procedures will be conducted by veterinarian(s) with experience in sea otter and walrus medicine, named in the ASLC's application file, or otherwise reported to the Service in annual reports or other written updates. Routine

treatment of medical problems may be conducted by trained personnel under the direction of these veterinarians.

9. The ASLC will consult with the Service's Marine Mammals Management Office for authorization to euthanize sick, injured, or orphaned Pacific walrus or northern sea otters, and each euthanasia procedure will be under the advice of the attending licensed veterinarian(s) experienced or trained in sea otter or walrus medicine.
10. Twenty-four-hour care, as needed, will be provided for the welfare of pups/calves under the age of six months.
11. Animals will only be tagged with flipper tags and PIT (passive integrated transponder) tags, which are unlikely to cause serious harm to the animals.
12. All rehabilitated sea otters and walrus deemed releasable will be released to the wild as soon as feasible and at or near (within 40 miles) their capture site except when extenuating circumstances preclude these sites, and alternative release sites are authorized by the Service's Marine Mammals Management Office.

#### ANALYTICAL FRAMEWORK FOR THE JEOPARDY DETERMINATION

Section 7(a)(2) of the ESA requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. Section 7(a)(4) requires Federal agencies to confer with the Services on actions likely to jeopardize the continued existence of any species proposed for listing. "Jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR 402.02).

The jeopardy analysis in this biological opinion relies on four components: (1) the Status of the Species, which describes the range-wide condition of the Southwest Alaska DPS of northern sea otters and Pacific walrus, the factors responsible for that condition, and its survival and recovery needs; (2) the Environmental Baseline, which analyzes the condition of the Southwest Alaska DPS of northern sea otters and Pacific walrus in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the Southwest Alaska DPS of northern sea otters and Pacific walrus; (3) the Effects of the Action, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the Southwest Alaska DPS of northern sea otters and Pacific walrus; and (4) the Cumulative Effects, which evaluates the effects of future, non-Federal activities, that are reasonably certain to occur in the action area, on the Southwest Alaska DPS of northern sea otters and Pacific walrus.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the current status of the Southwest Alaska DPS of northern sea otters and Pacific walrus, taking into account any cumulative effects, to

determine if implementation of the proposed action is likely to reduce appreciably the likelihood of both the survival and recovery of the Southwest Alaska DPS of northern sea otters and Pacific walrus in the wild by reducing the reproduction, numbers, and distribution of that species.

## STATUS OF THE SPECIES

### **Southwest Alaska DPS Northern Sea Otter**

#### ***Species Description***

The Southwest Alaska DPS of the northern sea otter was listed as threatened on August 9, 2005, due to population declines documented in the 1980s and 1990s (70 FR 46366). The sea otter is a mammal in the family Mustelidae and it is the only species in the genus *Enhydra*. Three subspecies of sea otters are recognized: 1) the Asian northern sea otter (*E. l. lutris*), which occurs west of the Aleutian Islands; 2) the southern sea otter (*E. l. nereis*), which occurs off the coast of California and Oregon; and 3) the Alaskan northern sea otter (*E. l. kenyoni*), which occurs from the west end of the Aleutian Islands to the coast of the State of Washington (Wilson et al. 1991). Adult males average 130 cm (4.3 ft) in length and 30 kg (66 lb) in weight; adult females average 120 cm (3.9 ft) in length and 20 kg (44 lb) in weight (Kenyon 1969). Sea otters lack blubber and depend entirely upon their fur for insulation (Riedman and Estes 1990). They molt gradually throughout the year (Kenyon 1969).

There is variation in age of first reproduction, but generally, male sea otters appear to reach sexual maturity at five to six years of age and females reach sexual maturity at three to four years (Garshelis et al. 1984; von Biela et al. 2007). The interval between pups is typically one year. The presence of pups and fetuses at different stages of development throughout the year suggests that reproduction occurs at all times of the year. Most areas that have been studied show evidence of one or more seasonal peaks in pupping (Rotterman and Simon-Jackson 1988). Similar to other mustelids, sea otters can have delayed implantation of the blastocyst (developing embryo) (Sinha et al. 1966). As a result, pregnancy can have two phases: from fertilization to implantation, and from implantation to birth (Rotterman and Simon-Jackson 1988). The average time between copulation and birth is six to seven months. Female sea otters typically will not mate while accompanied by a pup (Lensink 1962; Kenyon 1969; Garshelis et al. 1984).

Estimating the rate of recruitment of sea otters into a population is difficult primarily because of asynchronous pupping and an inability to reliably distinguish males from females and juveniles from adults externally. For long-lived species, we expect that survivorship of offspring is related to maternal age and experience, and that recruitment rate is more sensitive than survival rate to environmental fluctuations (Eberhardt 1977). The maximum life span of a wild sea otter is believed to be 23 years (Nowak 1999).

#### ***Status and Distribution***

The northern sea otter has a range that extends from the Aleutian Islands in southwestern Alaska to the coast of the State of Washington. Three stocks of northern sea otters are recognized in Alaska: southwest, southcentral, and southeast (Figure 1). The Southwest Alaska DPS stock ranges from Attu Island at the western end of the Near Islands in the Aleutians, east to Kamishak

Bay on the western side of lower Cook Inlet, includes waters adjacent to the Aleutian Islands, the Alaska Peninsula, the Kodiak archipelago, and the Barren Islands (USFWS 2005).

Within the range of northern sea otters, there may be physical barriers to movement across the upper and the lower portions of Cook Inlet, and there are morphological and some genetic differences between sea otters that correspond to the southwest and south-central Alaska stocks (USFWS 2005). Genetic analyses show some similarities between sea otters in the Commander Islands, Russia, and Alaska (Cronin et al. 1996), which indicates that movements between these areas has occurred, at least over evolutionary time scales. All existing sea otter populations have experienced at least one genetic bottleneck caused by the commercial fur harvests from 1741 to 1911.

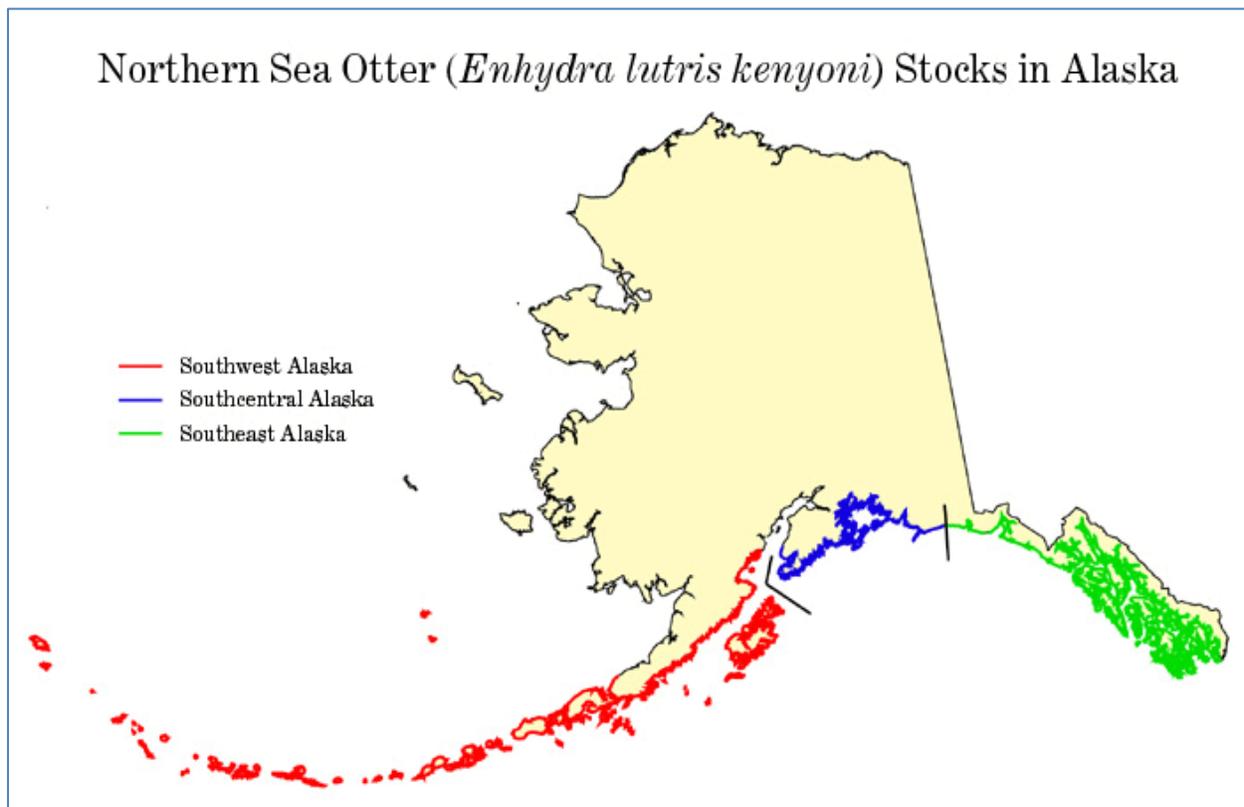


Figure 1: Northern sea otter stocks in Alaska.

Sea otters generally occur in shallow water areas near the shoreline. They are most commonly observed within the 40 m (131 ft) depth contour (USFWS 2008), although they can be found in waters up to 100 m (328 ft) deep. Most foraging dives take place in waters less than 30 m (98 ft) deep (Bodkin et al. 2004). As water depth is generally correlated with distance to shore, sea otters typically inhabit waters within 1-2 km (0.62–1.24 miles) of shore (Riedman and Estes 1990). 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 they also occur further seaward. Sea otters also inhabit marine environments that have soft sediment substrates, such as areas in

Bristol Bay and the Kodiak archipelago. As communities of benthic invertebrates differ between rocky and soft sediment substrate areas, so do sea otter diets.

Sea otters in Alaska are non-migratory and generally do not disperse over long distances (USFWS 2008). They usually remain within a few kilometers of their established feeding grounds (Kenyon 1981); however they are capable of long distance travel. Translocated populations are known to shift and expand their distribution in favorable habitats, sometimes traversing distances up to 350 km (217 mi) over a relatively short period (Ralls et al. 1992; Jameson 2002). Juvenile males (1–2 years of age) are known to disperse up to 120 km (75 mi) from their natal (birth) area; young females traveled up to 38 km (23.6 mi) (Garshelis and Garshelis 1984; Monnett and Rotterman 1988; Riedman and Estes 1990). Routine movements between feeding and resting areas as large as 57 to 97 km (35 to 60 miles) have also been observed by VanBlaricom et al. (2001).

### ***Population Trends***

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. Between 1741 and 1911, sea otters were hunted to the brink of extinction by Russian and American fur hunters before they were protected from further commercial harvests under the International Fur Seal Treaty of 1911. Prior to commercial exploitation, the worldwide population of sea otters was estimated at 150,000 to 300,000 animals (Kenyon 1969; Johnson 1982). When sea otters were afforded protection by the International Fur Seal Treaty in 1911, probably fewer than 2,000 animals remained in 13 remnant colonies (Kenyon 1969). Population regrowth began following legal protection and sea otters have since recolonized much of their historic range in Alaska. However, substantial population declines soon led to the listing of the Southwest Alaska DPS. Population trends in southwest Alaska leveled off during 2003 to 2011, but although population declines have stabilized there is still no evidence of recovery (USGS unpublished data, USFWS unpublished data). The current estimated population of the Southwest Alaska DPS is approximately 55,000 animals (USFWS 2014).

### ***Threats***

#### **Predation**

Available information suggests that predation by killer whales (*Orcinus orca*) may be the most likely cause of the sea otter decline in the Aleutian Islands (Estes et al. 1998). Data that support this hypothesis include: 1) a significant increase in the number of killer whale attacks on sea otters during the 1990s (Hatfield et al. 1998); 2) the number of observed attacks fits expectations from computer models of killer whale energetics; 3) the scarcity of beach cast otter carcasses that would be expected if disease or starvation were occurring; 4) markedly lower mortality rates for sea otters in a sheltered lagoon (where killer whales cannot go) than for those in an adjacent exposed bay; and 5) documentation of elevated mortality rate as the cause of decline, rather than reduced fertility or redistribution (Laidre et al. 2006).

The hypothesis that killer whales may be the principal cause of the sea otter decline suggests that there may have been significant changes in predator-prey relationships in the Bering Sea

ecosystem (Estes et al. 1998; Springer et al. 2003). For the past several decades, harbor seals (*Phoca vitulina*) and Steller sea lions (*Eumetopias jubatus*), the preferred prey species of transient, marine mammal eating killer whales, have been in decline throughout the western North Pacific. In 1990, Steller sea lions were listed as threatened under the ESA (55 FR 49204). Estes et al. (1998) hypothesized that killer whales may have responded to declines in their preferred prey species, harbor seals and Steller sea lions, by broadening their prey base to include sea otters. Springer et al. (2003) suggest that modern industrial whaling led to declines in great whale populations in the North Pacific, which in turn resulted in killer whales “fishing down” the marine food web; first harbor seals, then fur seals (*Callorhinus ursinus*), sea lions, and finally sea otters in succession as preferred prey were depleted.

### Oil Spills

The effects of oil on sea otters include short-term acute oiling of fur, resulting in death from hypothermia, smothering, drowning, or ingestion of toxins during preening. While these acute effects are not disputed, a growing body of evidence suggests that oil also affects sea otters over the long term, with interactions between natural environmental stressors and the compromised health of animals exposed to oil lingering well beyond the acute mortality phase (Peterson et al. 2003). The myriad studies that have been undertaken since the Exxon Valdez Oil Spill provide the most comprehensive data by which to evaluate the effects to wild populations of sea otters to long-term, low-level exposure to hydrocarbons (Bodkin et al. 2002; Stephensen et al. 2001), but documenting chronic effects on sea otters has been difficult due to lack of appropriate controls combined with the natural variability among affected resources.

Sublethal exposure compromises health, reproduction, and survival across generations (Bodkin et al. 2002). Sea otters consuming prey in habitats contaminated by residual oil have a high likelihood of encountering subsurface oil while excavating prey from sediments (Bodkin et al. 2002). Unlike vertebrates, invertebrates do not metabolize hydrocarbons; thus they accumulate hydrocarbon burdens in their tissues (Short and Harris 1996). Sea otters are, therefore, potentially exposed to residual oil through two pathways: physical contact with oil while digging for prey, and ingestion of contaminated prey.

### Subsistence Harvest

Subsistence harvest has reportedly removed fewer than 1,400 sea otters from the Southwest Alaska DPS between 1989 and 2011 (average from 2006 to 2010 was 76 per year, with a range of 30 to 122 per year; USFWS unpublished data; USFWS 2014). The majority of the subsistence harvest in southwest Alaska occurs in the Kodiak archipelago. Given the estimated population growth rate of 10 percent per year estimated for the Kodiak archipelago by Bodkin et al. (1999), we would expect that these harvest levels by themselves would not cause a population decline. Some of the largest observed sea otter declines have occurred in areas where subsistence harvest is either nonexistent or extremely low. The best available scientific information indicates that subsistence harvest by Alaska Natives has not caused a major impact on the Southwest Alaska DPS of the northern sea otter.

## Disease

Parasitic infection was identified as a cause of increased mortality of sea otters at Amchitka Island in 1951 (Rausch 1953). These highly pathogenic infestations were apparently the result of sea otters foraging on fish, combined with a weakened body condition brought about by nutritional stress. More recently, sea otters have been impacted by parasitic infections resulting from the consumption of fish waste. Necropsies of carcasses recovered in Orca Inlet, Prince William Sound, revealed that some otters in these areas had developed parasitic infections and fish bone impactions that contributed to their deaths (Ballachey et al. 2002). Valvular endocarditis and septicemia have been isolated as a major, proximate cause of sea otter deaths in Alaska (Goldstein et al. 2009). The majority of these deaths are ultimately related to exposure to and infection from *Streptococcus* bacteria.

## ***Recovery Plan***

The Southwest Alaska DPS ranges from west to east across more than 1,500 miles of shoreline, and the otters occur in a number of distinct habitat types. The magnitude of the population decline has varied over the range. In some areas, numbers have declined by more than an order of magnitude, while in other areas no decline has been detected. To address such differences, the recovery plan identifies five management units (MUs) within the DPS: 1) Western Aleutian Islands; 2) Eastern Aleutian Islands; 3) South Alaska Peninsula; 4) Bristol Bay; and 5) Kodiak, Kamishak, Alaska Peninsula (USFWS 2013). The relative importance of threats are assessed for each of the five MUs, with predation judged to be most important (moderate to high importance) followed by oil spills (low to moderate importance). Threats from subsistence harvest, illegal take, and infectious disease are assessed to be of moderate importance in the Kodiak, Kamishak, Alaska Peninsula MU, but of low importance elsewhere.

Specific actions to achieve recovery and delisting of the Southwest Alaska DPS that are identified in the Recovery Plan are:

1. Demographic criterion. The probability of the sea otter becoming endangered within 25 years would be less than five percent. Because of this criterion, population monitoring and population modeling are considered high priorities.
2. Ecosystem-based criterion. Greater than 50 percent of the islands need to be in the kelp-dominated state. This criterion applies to the Western Aleutians and Eastern Aleutians MUs only. Monitoring the status of the kelp forest ecosystem in these MUs is considered a high priority, as results from such monitoring will be needed to evaluate the ecosystem-based delisting criteria.
3. Threats-based criterion. Predation is considered to be the most important threat to recovery, so additional research on that threat is also a high priority. Other high-priority actions include identifying characteristics of sea otter habitat, and ensuring that adequate oil spill response capability exists in southwest Alaska.

## **Pacific Walrus**

### ***Species Description***

The Service was petitioned to list the Pacific walrus under the ESA in 2008. In 2011, the Service found that listing was warranted but precluded due to higher listing priorities, thus the Pacific walrus is now a candidate species. The Pacific walrus is a social and gregarious pinniped that mainly inhabits the shallow continental shelf waters of the Bering and Chukchi Seas (Fay 1982; Garlich-Miller et al. 2011). Pacific walrus are ecologically distinct from other walrus populations; they undergo significant seasonal migrations between the Bering and Chukchi Seas and principally rely on broken pack ice habitat to access offshore breeding and feeding areas (Fay 1982). Waters deeper than 100 m (328 ft) and the extent of the pack ice are factors that limit distribution to the north (Fay 1982). Unlike other pinnipeds, walrus are not as adapted for a pelagic existence and must haul out on ice or land regularly to rest between feeding bouts (Ray et al. 2006; 76 FR 7634). Groups may range from fewer than 10 to more than 1,000 animals (Gilbert 1999; Ray et al. 2006).

Pacific walrus are primarily benthic foragers; stomachs of some walrus were found to include over 60 benthic invertebrate genera (Fay et al. 1984; Bluhm and Gradinger 2008). Early interpretations of walrus stomach contents indicated walrus feed primarily on benthic bivalves; food items other than clams were suggested to be opportunistically consumed while clams were preferred (citations in Sheffield and Grebmeier 2009). However, non-mollusk taxa were likely misrepresented due to digestion and other biases such as sample size (Sheffield and Grebmeier 2009). Examination of fresh stomachs from 1975 to 1985 suggested no difference between the proportion of stomachs containing mostly bivalve and non-bivalve prey (Sheffield and Grebmeier 2009). Although bivalves and gastropods occurred more frequently in stomachs from the Bering and Chukchi Seas, respectively, it was most likely due to their differential variability at these locations (Sheffield and Grebmeier 2009). Male and female walrus consumed essentially the same prey when at the same location (Sheffield and Grebmeier 2009).

Walrus are capable of diving to depths of more than 250 m (820 ft) (Born et al. 2005), though they usually forage in waters 80 m (262 ft) deep or less (Fay and Burns 1988; Born et al. 2003; Kovacs and Lydersen 2008), presumably because of higher productivity of benthic foods in shallow waters (Fay and Burns 1988; Carey 1991; Jay et al. 2001; Grebmeier et al. 2006). Walrus make foraging trips that range from a few hours up to several days from land or ice haulouts (Jay et al. 2001; Born et al. 2003; Ray et al. 2006; Udevitz et al. 2009). Walrus tend to make more frequent but shorter trips, both in duration and distance, when using sea-ice as a foraging platform compared to terrestrial haulouts (Udevitz et al. 2009). Satellite telemetry data from walrus using Bering Sea-ice indicated that walrus spent 46 hours on average in the water between bouts of rest on the ice (Udevitz et al. 2009). Male walrus appear to have greater foraging endurance than females, with such excursions from land haulouts lasting up to 142 hours (Jay et al. 2001).

### ***Status and Distribution***

Pacific walrus are represented by a single stock of animals that inhabit the shallow continental shelf waters of the Bering and Chukchi Seas (Sease and Chapman 1988). Though some heterogeneity in the populations has been documented (Jay and Fischbach 2008), Scribner et al. (1997) found no difference in mitochondrial or nuclear DNA among Pacific walrus sampled from different breeding areas. Pacific walrus are managed as a single population. The current estimate of population size is approximately 129,000 (Speckman et al. 2010). Garlich-Miller et al. (2011) predicted that changing sea-ice dynamics will result in further population declines in the future, but could not specify the magnitude or rate of decline.

Pacific walrus are highly mobile, and their distribution varies in response to variations in seasonal and inter-annual sea-ice cover. During the January to March breeding season, walrus congregate in Bering Sea pack ice where open leads (fractures in sea-ice caused by wind drift or ocean currents), polynyas (enclosed areas of unfrozen water surrounded by ice), or thin ice allow access to water (Fay 1982; Fay et al. 1984). Breeding aggregations have been reported southwest of St. Lawrence Island, Alaska, south of Nunivak Island, Alaska, and south of the Chukotka Peninsula in the Gulf of Anadyr, Russia (Fay 1982; Mymrin et al. 1990). As the Bering Sea pack ice deteriorates in spring, most of the population migrates north through the Bering Strait to summer feeding areas over the continental shelf in the Chukchi Sea. However, several thousand animals, primarily adult males, remain in the Bering Sea during summer months, foraging from coastal haulouts in the Gulf of Anadyr, Russia, and Bristol Bay, Alaska.

Summer distribution in the Chukchi Sea varies annually depending upon the extent of sea-ice. When broken sea-ice is abundant, walrus are typically found in patchy aggregations over continental shelf waters. Summer concentrations have been reported in loose pack ice off the northwestern coast of Alaska, between Icy Cape and Point Barrow, near Wrangel Island, and along the coast of Chukotka, Russia (Fay 1982; Gilbert et al. 1992; Belikov et al. 1996). In years of low ice concentrations in the Chukchi Sea, some animals range east of Point Barrow into the Beaufort Sea; walrus have also been observed in the Eastern Siberian Sea in late summer (Fay 1982; Belikov et al. 1996).

The pack ice of the Chukchi Sea usually reaches its minimum extent in September. In years when the sea-ice retreats north beyond the continental shelf, walrus congregate in large numbers (up to several tens of thousands of animals in some locations) at terrestrial haulouts along the northern coast of the Chukotka Peninsula, Russia and northwestern Alaska (Fay 1982; Belikov et al. 1996; Kochnev 2004; Ovsyanikov et al. 2007; Kavry et al. 2008). In late September and October, walrus that summered in the Chukchi Sea typically move south in advance of the developing sea-ice. Satellite telemetry data indicate male walrus that summered at coastal haulouts in the Bering Sea also move northward towards winter breeding areas in November (Jay and Hills 2005). The male walrus' northward movements appear to be driven primarily by the presence of females at that time of year (Freitas et al. 2009).

### ***Population Trends***

While the overall geographic range of Pacific walrus has not changed, over the past decade the number of walrus coming to shore along the coastline of the Chukchi Sea in both Alaska and Chukotka has increased from the hundreds to thousands to greater than 100,000 (Kavry et al. 2008; Garlich-Miller et al. 2011). In fall 2007, 2009, 2010, and 2011 large walrus aggregations (3,000 - 20,000) were observed along the Alaska coast (Garlich-Miller et al. 2011).

### ***Threats***

The two main stressors for Pacific walrus are loss of sea-ice resulting from climate change and subsistence hunting (76 FR 7634), although other factors may have unknown effects on the walrus population.

### **Sea-Ice Loss and Climate Change**

Increased use of coastal haulouts is a function of the loss of summer sea-ice over the continental shelf (Garlich-Miller et al. 2011). Adult female and young walrus are arriving at these coastal haulouts as much as a month earlier and staying at the coastal haulouts a week or two longer. Summer sea-ice extent in the Chukchi Sea has decreased by about 12% per decade (NSIDC 2012), retreating off the shallow continental shelf and remaining only over deep Arctic Ocean waters where walrus cannot reach the benthos to feed. Declines in Chukchi Sea-ice extent, duration, and thickness are projected to continue in a linear fashion into the foreseeable future (Douglas 2010).

Increased use of coastal haulouts has several consequences. First, increased use of summer land haulouts by adult females and young could result in increased energy expenditures from foraging trips originating from shore and reduced access to preferred feeding grounds. Second, an increased dependence on coastal haulouts is likely to subject walrus to increased anthropogenic and natural disturbance; exposure to disturbance at coastal haulouts can lead to increased injury and mortality via trampling as walrus stampede into the water following disturbances (76 FR 7634). Such events have led to the trampling and death of hundreds of walrus in Alaska and thousands in Russia (calves are particularly vulnerable), presumably when herds were disturbed from anthropogenic and predator stimuli (Kavry et al. 2008; Fischbach et al. 2009). Predators and human hunters may also indirectly cause calves to be crushed and die by causing stampedes (76 FR 7634). Third, as they become increasingly dependent on coastal haulouts, walrus will become more susceptible to predation by polar bears (especially calves) and hunting by humans. Continued loss of sea-ice will likely cause walrus to become increasingly dependent on coastal haulouts in the summer and into the fall and early winter.

### **Subsistence Harvest**

Pacific walrus have been an important subsistence resource for coastal Alaskan and Russian Natives for thousands of years (Ray 1975), and their harvest is likely to continue into the foreseeable future (76 FR 7634). The Pacific walrus population has experienced an estimated annual harvest of 3,200 to 16,100 animals from 1960 through 2000 (mean 6,993; Angliss and Allen 2009). However, harvest estimates have declined, and recent harvest estimates are lower than historical levels (USFWS unpublished data). It is not known whether lower harvest levels reflect changes in walrus abundance or hunting effort. Factors affecting harvest levels include

the cessation of Russian commercial walrus harvests after 1991, changes in political, economic, and social conditions of subsistence hunters in Alaska and Chukotka, and the effects of variable weather and ice conditions (Angliss and Allen 2009). No statewide harvest quotas exist in Alaska at this time. Harvest is likely to continue at or near current levels, despite population declines in response to loss of summer sea-ice (76 FR 7634).

#### Disease

Walrus are susceptible to a variety of viral, bacterial, and parasitic infections. Sonsthagen et al. (2014) found low genetic diversity among genes associated with immune response, suggesting walrus may have limited resilience to novel pathogens. Increased use of terrestrial haulouts may escalate the risk of disease transmission (Garlich-Miller et al. 2011). The importance of disease as a significant species-level threat to Pacific walrus remains uncertain.

#### Pollution, Contaminants and Other Activities

Human activity in walrus habitat could impact walrus. For example, noise from aircraft may disturb walrus at haulouts, possibly causing stampedes. Underwater noise, such as open-water seismic exploration (e.g., with air gun arrays), may potentially affect marine mammal hearing and/or communication. Oil and gas activities are a source of human disturbance in walrus habitat. Oil and gas activities, spills, commercial fisheries interactions, and shipping do not currently appear to threaten the Pacific walrus population as a whole, and they are not likely to pose a significant risk to the listed species in the foreseeable future (76 FR 7634).

### ENVIRONMENTAL BASELINE

#### **Action Area**

The implementing regulations for section 7(a)(2) of the ESA define the “action area” as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 Code of Federal Regulations 402.02). The ASLC is physically located in Seward, Alaska approximately 125 miles south of Anchorage, Alaska. The ASLC responds to live and dead marine mammals that have been stranded or injured throughout the state, and plays a critical role in responding to oil spills or other unusual events. Therefore, the action area for this biological opinion is the coastal waters of the State of Alaska and the ASLC’s rehabilitation facilities in Seward, Alaska.

#### **Previous Consultations in the Action Area**

The Service (2015) issued a biological opinion to the U.S. Coast Guard and the Environmental Protection Agency for the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges; this biological opinion took a programmatic approach to evaluating the anticipated effects of oil spill response activities in Alaska waters. We determined that this action would not jeopardize the Southwest Alaska DPS or the Pacific Walrus, and would not adversely modify sea otter critical habitat. To the best of our knowledge, oil spill response activities as described in the Unified Plan have not yet been implemented, so it is unknown what the actual effects will be.

The Service is currently consulting with the Bureau of Ocean Energy Management on their proposed Cook Inlet Lease Sale 244. The biological opinion for that project should be finalized in early 2017.

### **Status of the Species in the Action Area**

Southwest Alaska DPS of the northern sea otter is wholly contained within the action area. The most recent population estimate for listed sea otters is 55,000 animals.

The Pacific walrus ranges from the coastal waters of Alaska and across the Chukchi and Bering Seas into Russian waters. At any given time, the estimated 129,000 animals in the population may be in either Alaska or Russian waters.

### **EFFECTS OF THE ACTION**

#### **Southwest Alaska DPS of Northern Sea Otter**

##### ***Capture, Rehabilitation, and Release or Euthanasia***

The proposed activities include recovery of sick and stranded sea otter adults and pups. Animals targeted for rescue or rehabilitation will include only those that are dead, sick, injured, stranded, or otherwise cannot be expected to survive without human intervention. Recovered live animals will be treated, rehabilitated, and, if possible, tagged and released. Sick and injured animals that have been determined by the attending veterinarian to be in such moribund condition that the animal is unlikely to survive in the wild or in captivity with human intervention will be humanely euthanized by the attending veterinarian. Recovered dead animals will be used for scientific research into the causes and prevention of mortality.

No intentional harassment of sea otters would occur. If an animal rescue takes place in a social setting, temporary social disturbance could occur. Efforts would be made to assure the subject animal is isolated as quickly as possible from non-target animals. If it is judged by the rescue team that disturbance to other animals is occurring, efforts will cease until non-target animals have departed the area of their own volition. At that time, efforts to isolate the subject animal would resume.

The recovery and rehabilitation activities conducted by the ASLC under the permit(s) issued by the DMA are expected to temporarily remove only very small numbers of sea otters from the listed population. Of those sea otters that are captured and treated, it is anticipated that most will be returned to the wild after treatment and rehabilitation, a few that are deemed unfit for release may be retained at the ASLC, and a very small number will be euthanized. Effects on sea otters will include short-term stress and disturbance of animals that are chased, captured, transported and treated; potential injury to sea otters may occur as a result of capture, transportation and medical treatment; and a very limited number of lethal and sub-lethal treatments may result in the permanent removal of some sea otters from the breeding population.

Behavioral reactions to disturbance may include: increased alertness; vigilance; agonistic behavior; escape behavior; or temporary or permanent abandonment of an area (Van Polanen Petel et al. 2006). In addition to behavioral responses, sea otters may exhibit physiological responses (e.g., increased heart rate, hormonal response; loss of immune function, decreased body weight, impaired reproductive function, and abnormal thyroid function) (Harms et al. 1997; Tempel and Gutierrez 2003). These responses may result in a diversion from one biological activity to another. That diversion may cause stress (Goudie and Jones 2004), which redirects energy away from fitness-enhancing activities such as feeding and mating (Frid and Dill 2002).

All authorized activities will be conducted in consultation with the Service's Marine Mammals Management Office, by trained biologists or staff, and following very stringent guidelines. Please see the proposed permit conditions for further details on these guidelines. Regular consultation with management authorities and employing trained biologists to conduct the activities should reduce the likelihood and severity of any adverse effects.

### ***Effects on Recovery***

The recovery and rehabilitation activities conducted by the ASLC under the permit(s) issued by the DMA will not diminish the chances of recovery of listed sea otters; the goal of the proposed action is to enhance recovery. The number of sea otters removed from the breeding population under these permits is expected to be very low; the sea otters temporarily or permanently removed from the population under the permits will be animals that are already injured or dead. The intent will be to rehabilitate and release healthy animals as soon as possible. Any disturbance or injury to sea otters during these activities will be incidental to the intent of these activities, which are designed to restore stranded sea otters to the breeding population.

Issuance of these permits will have no measurable effect on the demographic or ecosystem-based criteria required to achieve recovery and delisting of the Southwest Alaska DPS, as specified in the Recovery Plan (USFWS 2013). These permits will, however, further an important threats-based criterion recovery goal by contributing to oil spill response planning in southwest Alaska, a high-priority recovery action for the sea otter. The ASLC plays an important role in oil spill response throughout the state of Alaska, and issuance of these permits will allow them to treat any sea otters injured by an oil spill.

### ***Summary of Effects***

The DMA's issuance of the ASLC's recovery and rehabilitation permits can be expected to have an overall positive effect, but with some negative effects to individual sea otters through disturbance or injury, with the possibility that some recovered sea otters will have to be euthanized if their injuries are severe. Implementation of the permit conditions will help avoid or minimize the negative effects of the activities conducted under the permits. Likewise, the ASLC's activities can be expected to have beneficial effects to individual sea otters and the population as a whole, by providing medical care to injured sea otters and returning them to the wild. The benefit of these activities on the population will likely be difficult to measure; however, recovery permits provide an important avenue for species recovery by limiting the number of individuals lost to injury or death. The issuance of the permits is anticipated to provide a net benefit for the recovery of sea otters.

## **Pacific Walrus**

### ***Capture, Rehabilitation, and Release or Euthanasia***

The proposed activities include recovery of sick and stranded walrus adults and calves. Animals targeted for rescue or rehabilitation will include only those that are dead, sick, injured, stranded, or otherwise cannot be expected to survive without human intervention. Recovered live animals will be treated, rehabilitated, and, if possible, tagged and released. Sick and injured animals that have been determined by the attending veterinarian to be in such moribund condition that the animal is unlikely to survive in the wild or in captivity with human intervention will be humanely euthanized by the attending veterinarian. Recovered dead animals will be used for scientific research into the causes and prevention of mortality.

No intentional harassment of walrus would occur. If an animal rescue takes place in a social setting (i.e., an injured subject in a haulout area), temporary social disturbance could occur. Efforts would be made to assure the subject animal is isolated as quickly as possible from non-target animals. If it is judged by the rescue team that disturbance to other animals is occurring, efforts will cease until non-target animals have departed the area of their own volition. At that time, efforts to isolate the subject animal would resume.

The recovery and rehabilitation activities conducted by the ASLC under the permit(s) issued by the DMA are expected to temporarily remove only very small numbers of Pacific walrus from the population. Of those walrus that are captured and treated, it is anticipated that most will be returned to the wild after treatment and rehabilitation, a few that are deemed unfit for release may be retained at the ASLC, and a very small number will be euthanized. Effects on walrus will include short-term stress and disturbance of animals that are chased, captured, transported and treated; potential injury to walrus may occur as a result of capture, transportation and medical treatment; and a very limited number of lethal and sub-lethal treatments may result in the permanent removal of some walrus from the breeding population.

Walrus are sensitive to most disturbances, and we anticipate this to be the case for any recovery and rehabilitation activity conducted under the permits. As social animals, walrus travel and haul out to rest in densely packed groups of a few individuals to several thousand (Gilbert 1999; Kastelein 2002; Jefferson et al. 2008). Disturbance reactions are variable, depending on age, sex, and size and haulout substrate (Fay et al. 1984). Females with calves appear to be most sensitive to disturbance, and animals on shore are more sensitive than those on ice (Fay et al. 1984). When hauled out groups are disturbed and stampede, calves and young are vulnerable to trampling injuries and mortality (Fay and Kelly 1980). The potential for disturbance events to result in animal injuries, mortalities or mother-calf separations increases with the size of walrus aggregations (78 FR 35364). In addition to trampling injuries, disturbed walrus may suffer increased stress and energy expenditure, and interference with feeding or communication. Cows and calves are especially wary; cows may spend less time with calves on land; calves may spend too much time in the water, resulting in impaired thermoregulation. Severe, prolonged or repeated disturbances could potentially displace individuals or herds from preferred feeding or resting areas (78 FR 35364).

All authorized activities will be conducted in consultation with the Service's Marine Mammals Management Office, by trained biologists or staff, and following very stringent guidelines. Please see the proposed permit conditions for further details on these guidelines. Regular consultation with management authorities and employing trained biologists to conduct the activities should reduce the likelihood and severity of any adverse effects.

### ***Effects on Recovery***

The recovery and rehabilitation activities conducted by the ASLC under the permit(s) issued by the DMA will not diminish the chances of recovery of Pacific walrus; the goal of the proposed action is to enhance recovery. The number of walrus removed from the breeding population under these permits is expected to be very low, consisting of animals that are already injured or dead, and the intent of the permits will be to rehabilitate and release all releasable animals as soon as possible. Any disturbance or injury to walrus during these activities will be incidental to the intent of these activities, which are designed to restore stranded walrus to the breeding population. Finally, the ASLC plays an important role in oil spill response throughout the state of Alaska; issuance of these permits will allow the ASLC to treat any walrus affected by an oil spill.

### ***Summary of Effects***

The DMA's issuance of the ASLC's recovery and rehabilitation permits can be expected to have an overall positive effect, but with some negative effects to individual walrus through disturbance or injury, with the possibility that some recovered walrus will have to be euthanized if their injuries are severe. Implementation of the permit conditions will help avoid or minimize the negative effects of the activities conducted under the permits. Likewise, the ASLC's activities can be expected to have beneficial effects to individual walrus by providing medical care to injured walrus and returning them to the wild. The benefit of these activities on the population will likely be difficult to measure; however, recovery permits provide an important avenue for species recovery by limiting the number of individuals lost to injury or death. The issuance of the permits is anticipated to provide a net benefit for the recovery and conservation of Pacific walrus.

## **CUMULATIVE EFFECTS**

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. We do not consider future Federal actions that are unrelated to the proposed action in this section because they require separate consultation pursuant to section 7 of the ESA.

Community growth is anticipated to continue statewide (U.S. Census Bureau 2013). The spatial footprint and population sizes of many cities and villages will likely increase, along with associated infrastructure such as roads, power lines, communication towers, landfills, and gravel pits. These activities may impact listed species. The scale of impacts will depend not only on the amount of growth, but the location in relation to habitat of listed species. As the human

population grows, so does the probability of impacts to listed species and critical habitat through alteration of habitat and disturbance.

Increased marine traffic could impact listed species through disturbance, collisions, and more significantly from accidental fuel spills. In the Chukchi and Beaufort Seas, decline in the extent of Arctic sea-ice in the summer and increase in the length of the ice-free season has prompted interest in shipping within and through Arctic waters via the Northwest Passage (Brigham and Ellis 2004). Ships operating, or that could operate in the area, include military vessels, pleasure craft, cruise ships, barges, scientific research vessels, and vessels related to oil, gas, or mineral development. Shipping through the Northwest Passage could involve routes through the Bering Sea as well as Arctic waters. However, we have no data on the number of vessels that may operate in these waters, the routes that may be selected, or the magnitude of potential risk they pose. In addition, all international commercial shipping currently taking place utilizes the Northern Sea Route in Russian waters, not the Northwest Passage that includes U.S. waters. Thousands of vessels transit the Great Circle Route through the Aleutians each year and the level of use is expected to double into the next several decades (Nuka 2005).

Subsistence harvest of sea otters and walrus is expected to continue in the future. The Service will continue to work with Native groups and others nationally and internationally to participate in the management of subsistence harvest in order to minimize potential for these impacts to alter the probability of continued survival of the species.

## CONCLUSION

The regulatory definition of “to jeopardize the continued existence of the species” focuses on assessing the effects of the proposed action on the reproduction, numbers, and distribution, and their effect on the survival and recovery of the species being considered in the biological opinion. For that reason, we have used those aspects of the Southwest Alaska DPS of northern sea otter’s and Pacific walrus’ status as the basis to assess the overall effect of the proposed action on the species.

### **Southwest Alaska DPS of Northern Sea Otter**

The DMA is proposing to renew and re-issue the ASLC’s authorizations for the rescue, rehabilitation, and release of stranded northern sea otters for a five-year period. The removal of a very small number of Southwest Alaska DPS sea otters from the population that are already injured, or otherwise in need of human intervention for their survival, will not measurably affect sea otter reproduction, numbers, or distribution.

The renewal and re-issuance of the ASLC’s authorizations is consistent with the Recovery Plan (USFWS 2013), and will further the threats-based criterion recovery goal by contributing to oil spill response planning in southwest Alaska, a high-priority recovery action for the sea otter. The ASLC plays an important role in oil spill response throughout the state of Alaska, and issuance of these permits will allow them to treat any sea otters injured by an oil spill. Issuance

of these authorizations will not reduce appreciably the likelihood of both the survival and recovery of the Southwest Alaska DPS.

After reviewing the current status of the Southwest Alaska DPS of northern sea otter, the environmental baseline for the action area, the effects of DMA's proposed issuance of recovery and rehabilitation permits to the ASLC and the cumulative effects, it is the Service's biological opinion that the issuance of these permits, as proposed, is not likely to jeopardize the continued existence of listed sea otters. We have reached this conclusion based on the following:

1. The effects on reproduction from the rescue, rehabilitation, and release of stranded northern sea otters will be small enough that they will be difficult to measure. The ASLC will only remove sea otters from the wild that are not expected to survive without human intervention. These injured or sick sea otters are unlikely to breed even if they remain in the wild, as their poor condition likely makes them unable to compete for a mate and/or produce viable offspring. Successfully treated sea otters will be released after rehabilitation, although it is unknown if this will translate into these sea otters returning to the breeding population.
2. Although very small numbers of individual sea otters can be expected to be removed from the population through these rescue and rehabilitation actions, the number of listed sea otters in the population will remain stable. Any sea otter rescued for rehabilitation and eventual release or euthanasia will effectively already be removed from the population by virtue of their injury or illness. And because the Southwest Alaska DPS is a relatively wide-ranging species that breeds year-round, the number of sea otters removed from the population through these actions will be quickly replaced as healthy sea otters that remain in the population breed and produce viable young.
3. The effects on sea otter distribution will be small enough that they will be difficult to measure. Sea otters will only be rescued and rehabilitated in those situations where they are not expected to survive without intervention. It is likely that those sea otters that require rescue/rehabilitation will be solitary otters or otters with pups, and that their removal from the wild for these actions will not measurably change the distribution of sea otters that remain behind.
4. The effects on recovery of the Southwest Alaska DPS by the recovery and rehabilitation activities conducted by the ASLC under the permit(s) issued by the DMA will not diminish the chances of recovery of listed sea otters. The number of sea otters removed from the breeding population under these permits is expected to be very low, the sea otters temporarily or permanently removed from the population under the permits will be animals that are already injured or dead. The intent will be to rehabilitate and release healthy animals as soon as possible. Any disturbance or injury to sea otters during these activities will be incidental to the intent of these activities, which are designed to restore stranded sea otters to the breeding population.

## **Pacific Walrus**

The DMA is proposing to renew and re-issue the ASLC's authorizations for the rescue, rehabilitation, and release of stranded Pacific walrus, a candidate species, for a five-year period. The removal of a very small number of Pacific walrus from the population that are already injured, or otherwise in need of human intervention for their survival, will not measurably affect walrus reproduction, numbers, or distribution.

After reviewing the current status of the Pacific walrus, the environmental baseline for the action area, the effects of DMA's proposed issuance of recovery and rehabilitation permits to the ASLC and the cumulative effects, it is the Service's biological opinion that the issuance of these permits, as proposed, is not likely to jeopardize the continued existence of candidate Pacific walrus. We have reached this conclusion based on the following:

1. The DMA's issuance of the ASLC's recovery and rehabilitation permits can be expected to have some negative effects to individual walrus through disturbance or injury, with the possibility that some recovered walrus will have to be euthanized if their injuries are severe, while the implementation of the permit conditions will further reduce the negative effects of the activities conducted under the permits. Likewise, the ASLC's activities can be expected to have some beneficial effects to individual walrus by providing medical care to injured walrus and returning them to the wild. Negative and beneficial effects to the species as a whole are expected to be so small as to be difficult to measure.
2. The recovery and rehabilitation activities conducted by the ASLC under the permit(s) issued by the DMA will not diminish the chances of recovery of candidate Pacific walrus. The number of walrus removed from the breeding population under these permits is expected to be very low, consisting of animals that are already injured or dead, and the intent of the permits will be to rehabilitate and release all releasable animals as soon as possible. Any disturbance or injury to walrus during these activities will be incidental to the intent of these activities, which are designed to restore stranded walrus to the breeding population. Finally, the ASLC plays an important role in oil spill response throughout the state of Alaska; issuance of these permits will allow the ASLC to treat any walrus affected by an oil spill.

## INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened wildlife species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not the purpose of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

In June 2015, the Service finalized new regulations implementing the incidental take provisions of section 7(a)(2) of the ESA. The new regulations also clarify the standard regarding when the Service formulates an Incidental Take Statement [50 CFR 402.14(g)(7)], from "...if such take may occur" to "...if such take is reasonably certain to occur." This is not a new standard, but merely a clarification and codification of the applicable standard that the Service has been using and is consistent with case law. The standard does not require a guarantee that take will result; only that the Service establishes a rational basis for a finding of take. The Service continues to rely on the best available scientific and commercial data, as well as professional judgment, in reaching these determinations and resolving uncertainties or information gaps.

The prohibitions against taking the species found in section 9 of the ESA do not apply until the species is listed; however, the Service advises the DMA to consider implementing the reasonable and prudent measures provided for the Pacific walrus. If this conference opinion is adopted as a biological opinion following a listing or designation, these measures, with their implementing terms and conditions, will be non-discretionary:

### **Southwest Alaska DPS of Northern Sea Otter**

We anticipate that some Southwest Alaska DPS northern sea otters could be taken as a result of the DMA's issuance of the ASLC's recovery and rehabilitation permits. We expect the incidental take to be in the form of harm (disturbance or injury), with the possibility that some recovered sea otters will have to be euthanized if their injuries are severe.

We cannot quantify the precise number of Southwest Alaska DPS northern sea otters that may be taken as a result of the DMA's re-issuance of ASLC's permits because any sea otters taken will be animals previously injured or sick, or otherwise unable to survive without human intervention. The likelihood that a given animal or animals will require rescue/rehabilitation is hard to predict, and will depend largely on activities unrelated to the ASLC's actions, such as

disease, boat strikes and oil spills. The protective measures proposed by DMA are likely to prevent injury or mortality of most individuals, with only the most moribund animals likely to be killed by rescue and rehabilitation activities that are intended to return them to the breeding population.

Consequently, we are unable to reasonably anticipate the actual number of Southwest Alaska DPS sea otters that would be taken by the proposed activities; however, we must provide a level at which formal consultation would have to be reinitiated. The Environmental Baseline and Effects Analysis sections of this biological opinion indicate that adverse effects to sea otters would likely be low given the nature of the proposed activities, and we therefore anticipate that take of Southwest Alaska DPS sea otters would also be low.

Similarly, for estimating the number of sea otters that would be taken by rescue/rehabilitation activities, we cannot predict how many may be encountered for reasons stated earlier. While the benefits of rescue and rehabilitation outweigh the risks, we must provide a limit for take at which consultation would be reinitiated because high rates of rescues may indicate that some important information about the species' in the action area was not apparent (e.g., it is much more abundant than thought). Conversely, because rescue and rehabilitation activities can be highly variable, depending upon the species and the timing of the activity, we do not anticipate a number so low that reinitiation would be triggered before the effects of the activity were greater than what we determined in the Effects Analysis.

Under the previous permits, the DMA authorized the ASLC to take, transport and hold up to 20 live or dead northern sea otters per year from the Southwest Alaska DPS for the purpose of enhancement of the survival or recovery of the species. Therefore, if ASLC takes, transports or holds more than 20 adult, subadult, or juvenile listed sea otters in any given year, the DMA must contact our office immediately to reinitiate formal consultation. The ASLC's rescue/rehabilitation activities that are likely to cause additional take should cease during this review period because the exemption provided under section 7(o)(2) would lapse and any additional take would not be exempt from the section 9 prohibitions.

### **Pacific Walrus**

We anticipate that some Pacific walrus could be taken as a result of the DMA's issuance of the ASLC's recovery and rehabilitation permits. We expect the incidental take to be in the form of harm (disturbance or injury), with the possibility that some recovered walrus will have to be euthanized if their injuries are severe. We cannot quantify the precise number of Pacific walrus that may be taken as a result of the DMA's re-issuance of ASLC's permits because there is insufficient information on how walrus may respond to rescue and rehabilitation activities. Therefore, in the event the Pacific walrus is listed, the DMA must contact our office immediately and reinitiate consultation.

## REASONABLE AND PRUDENT MEASURES

The measures described below are non-discretionary, and must be undertaken by the DMA or made binding conditions of any permit issued to the ASLC, as appropriate, for the exemption in section 7(o)(2) to apply. The DMA has a continuing duty to regulate the activity covered by this incidental take statement. If the DMA (1) fails to assume and implement the terms and conditions or (2) fails to require the ASLC to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit(s), the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the DMA and/or ASLC must report the progress of the action and its impact on the species to the Service as specified in the Incidental Take Statement [50 CFR 402.14(i)(3)].

### **Southwest Alaska DPS of Northern Sea Otter**

The Service believes the following reasonable and prudent measures (RPMs) are necessary and appropriate to minimize the impacts of the incidental take of the Southwest Alaska DPS of northern sea otters during rescue/rehabilitation activities:

1. All authorized activities shall be initiated and conducted in consultation with the Service's Marine Mammals Management Office at (907) 786-3800 (Phone) or (907) 786-3816 (Fax).
2. To minimize the likelihood that rescue/rehabilitation activities will result in injury or mortality of sea otters, DMA and ASLC shall ensure that qualified and properly trained individuals lead all activities.

### **Pacific Walrus**

The Service believes the following reasonable and prudent measures (RPMs) are necessary and appropriate to minimize the impacts of the incidental take of the Pacific walrus during rescue/rehabilitation activities:

1. All authorized activities shall be initiated and conducted in consultation with the Service's Marine Mammals Management Office at (907) 786-3800 (Phone) or (907) 786-3816 (Fax).
2. To minimize the likelihood that rescue/rehabilitation activities will result in injury or mortality of Pacific walrus, DMA and ASLC shall ensure that qualified and properly trained individuals lead all activities.

## TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the ESA, the DMA must comply with the following terms and conditions, which implement the reasonable and prudent measures described

above and outline reporting and monitoring requirements. These terms and conditions are non-discretionary.

### **Southwest Alaska DPS of Northern Sea Otter**

1. The following term and condition implements RPM 1:

The permits shall be conditioned to require the ASLC to coordinate rescue and rehabilitation activities closely with the Service's Marine Mammals Management Office at (907) 786-3800 (Phone) or (907) 786-3816 (Fax).

2. The following terms and conditions implement RPM 2:

- a. All medical care of any northern sea otter held at the rehabilitation facility must be under the direction of a licensed veterinarian experienced or trained in sea otter medicine, and the care must meet current veterinary and professional standards.
- b. All authorized activities must be performed by the ASLC's institution biologists or individuals extensively trained in the appropriate techniques and possessing adequate proficiency such that they will not cause undue injury or death of sea otters. An adequate number of attending personnel will be present during rescue activities, one of which will be ASLC personnel with extensive training and previous capture/rescue experience.
- c. All transport of animals must be by ASLC personnel, investigators, or designees and in accordance with Animal and Plant Health Inspection Service (APHIS) transport standards [Humane and Healthful Transport of Marine Mammals (7 U.S.C. 2131-2159; 9 CFR 3, Part E)].

### **Pacific Walrus**

1. The following term and condition implements RPM 1:

The permits shall be conditioned to require the ASLC to coordinate rescue and rehabilitation activities closely with the Service's Marine Mammals Management Office at (907) 786-3800 (Phone) or (907) 786-3816 (Fax).

2. The following terms and conditions implement RPM 2:

- a. All medical care of any Pacific walrus held at the rehabilitation facility must be under the direction of a licensed veterinarian experienced or trained in walrus medicine, and the care must meet current veterinary and professional standards.
- b. All authorized activities must be performed by the ASLC's institution biologists or individuals extensively trained in the appropriate techniques and possessing adequate

proficiency such that they will not cause undue injury or death of walrus. An adequate number of attending personnel will be present during rescue activities, one of which will be ASLC personnel with extensive training and previous capture/rescue experience.

- c. All transport of animals must be by ASLC personnel, investigators, or designees and in accordance with Animal and Plant Health Inspection Service (APHIS) transport standards [Humane and Healthful Transport of Marine Mammals (7 U.S.C. 2131-2159; 9 CFR 3, Part E)].

## REPORTING REQUIREMENTS

Pursuant to 50 CFR 402.14(i)(3), the DMA must report the progress of the action and its impact on the species as specified in this Incidental Take Statement.

The ASLC must submit an annual report to the Service's DMA, Marine Mammals Management Office, and Anchorage Fish and Wildlife Field Office by January 31 following each year the permit is in effect. Reports must be submitted to :

1. USFWS, Division of Management Authority  
4401 N. Fairfax Drive, Room 212  
Arlington, VA 22203; and
2. Chief, Marine Mammals Management Office  
1011 East Tudor Road, MS-31  
Anchorage, AK 99503
3. Branch Chief, Ecological Services Branch  
Anchorage Fish and Wildlife Field Office  
4700 BLM Road  
Anchorage, AK 99507

Reports shall include the total numbers of live sea otters and walrus rescued within the previous calendar year; the circumstances of the taking and method of capture; the number of animals rehabilitated and successfully released within the previous calendar year; rehabilitation times; location of stranding and release sites; the number of animals deemed non-releasable in the previous calendar year; the number and causes or mortalities, including euthanasia; the physical description of each animal, including sex and estimated age; and any other relevant information.

## DISPOSITION OF DEAD OR INJURED SPECIMENS

As part of this incidental take statement and pursuant to 50 CFR 402.14(i)(1)(v), upon locating a dead or injured northern sea otter or walrus, the ASLC must consult with the Service's Marine Mammals Management Office at (907) 786-3800 (Phone) or (907) 786-3816 (Fax) regarding the disposition of injured sea otters or walrus (retention or rehabilitation followed by release) and dead sea otters or walrus. The ASLC may euthanize a sick, injured, or orphaned northern sea otter or walrus under the advice of ASLC veterinarians after consultation with the Service's Marine Mammals Management Office and the DMA.

The ASLC must take care in handling injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. The ASLC must transport injured animals to a qualified veterinarian.

## CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. No conservation recommendations have been developed for these activities.

## REINITIATION NOTICE

This concludes formal consultation on DMA's proposed re-issuance of the ASLC's authorizations for the rescue, rehabilitation, and release of stranded northern sea otters for a five-year period. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the exemption issued pursuant to section 7(o)(2) may have lapsed and any further take could be a violation of section 4(d) or 9. Consequently, we recommend that any operations causing such take cease pending reinitiation.

This also concludes the conference for DMA's proposed re-issuance of the ASLC's authorizations for the rescue, rehabilitation, and release of stranded Pacific walrus for a five-year period. You may ask for confirmation of the conference opinion as a biological opinion issued through formal consultation if the Pacific walrus is listed. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the

action as planned or in the information used during the conference, the Service will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary.

After listing of Pacific walrus as endangered/threatened and/or designation of critical habitat for the Pacific walrus and any subsequent adoption of this conference opinion, the Federal agency shall request reinitiation of consultation if: 1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions about this biological opinion, please contact Catherine Yeargan of my staff at 907-271-2066, or by e-mail at [catherine\\_yeargan@fws.gov](mailto:catherine_yeargan@fws.gov).

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