

Sensitive Area Section – Attachment 2

Wildlife Protection Guidelines: Pribilof Islands

Aleutian Islands Subarea Contingency Plan For Oil and Hazardous Substance Spills and Releases

Pribilof Islands Wildlife Protection Contacts

Revision 6 – May 2009

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100. Introduction

101. Background and Objectives

The Pribilof Islands, which are comprised of St. Paul, St. George, Walrus, Otter, and Sivutch Islands, are located in the Bering Sea approximately 300 miles off the west coast of Alaska. These islands and their offshore areas provide important seasonal feeding, breeding, reproducing, and staging grounds for significant numbers of migratory birds and marine mammals. Many of these wildlife species also serve as important subsistence resources.

Because of their interdependence with the marine environment, it is possible that these wildlife may – during an oil spill that affects offshore or coastal areas – contact oil on the water surface and/or along shorelines, marshes, or tide lands. The number of individuals and species affected will depend on several variables, such as the location and size of the spill, the characteristics of the oil, weather and water conditions, types of habitats affected, and the time of year the spill occurs.

In January 1997, the Pribilof Islands Wildlife Protection Subgroup (Pribilof Islands Subgroup)¹ was created by the Pribilof Island Working Group to develop wildlife protection guidelines specific to St. Paul and St. George Islands (hereafter referred to as the Pribilofs). The resulting *Wildlife Protection Guidelines: Pribilof Islands (Pribilof Guidelines)*, which are contained herein, tier off state-wide wildlife protection guidance in the Alaska Regional Response Team's (RRT) *Wildlife Protection Guidelines for Alaska (Alaska Guidelines)*. The *Alaska Guidelines*, which are included as Annex G of the *Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan)*, were prepared by the Alaska RRT Wildlife Protection Working Group (WPWG). The *Alaska Guidelines* may be found on the internet at <http://akrrt.org/UnifiedPlan/G-Annex.pdf>. The *Pribilof Guidelines*, which are Attachment 2 of the Sensitive Areas Section of the *Unified Plan, Aleutian Islands Subarea Contingency Plan for Oil and Hazardous Substance Spills and Releases (Aleutians SCP)*, may be found on the internet at http://akrrt.org/AIPlan/Pribilof_WPG.shtml.

The *Pribilof Guidelines* are based on the three wildlife response strategies that form the foundation of the *Alaska Guidelines*. Those strategies are as follows:

- Primary response strategy, which emphasizes controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially-affected species and/or their habitat, and the removal of oiled debris (e.g., oiled wildlife carcasses).

¹ Pribilof Islands Subgroup members in January 1997 included: State of Alaska (Mark Fink); U.S. Department of the Interior, Fish and Wildlife Service (Art Sowls); U.S. Department of the Interior, Office of Environmental Policy and Compliance (Pamela Bergmann)-Subgroup Chairperson; U.S. Department of Commerce, National Marine Fisheries Service (Dave Cormany); Tribal Government of St. Paul (Aquilina Lestenkof); St. George Tanaq Corporation (Bret Coburn); Tanadgusix Corporation (Ron Philemonof); City of St. Paul (John Mercurief); Delta Western (Dennis Bourdukofsky); Icicle Seafoods (Mike Clutter); Trident Seafoods (Doug Donegan); and Unisea (Ted Compton).

- Secondary response strategy, which emphasizes keeping potentially-affected wildlife away from oiled areas through the use of deterrent techniques, pre-emptive capture of unoiled wildlife, or herding animals away from an oiled area.
- Tertiary response strategy, which is a last-resort strategy that includes capturing, stabilizing, and treating oiled wildlife.

The *Pribilof Guidelines* also address measures to help ensure that overall response activities are conducted in a manner that minimizes adverse effects to wildlife, such as the prevention of unnecessary or illegal disturbance to sensitive species and habitats. See Sections 302.A. and 402.A. below and Sections 301.B.1 and 302.B.1 of the *Alaska Guidelines* for examples and additional information on this topic. In addition, the *Pribilof Guidelines* address the protection of migratory birds from rats associated with grounded-vessel incidents and response-related vessels (see Section 302.A.2 below).

102. Wildlife Resources

The *Pribilof Guidelines* focus on two principal wildlife resources – migratory birds and fur seals (*Callorhinus ursinus*) – that are at risk during an oil spill in offshore and/or coastal waters or fresh water. Sections 301.A and 401.A, contain population and distribution information for migratory birds and fur seals, respectively.

As stated above, the information in the *Pribilof Guidelines* for migratory birds and fur seals tiers off information contained in the *Alaska Guidelines* for those species. Wildlife-protection information for other species that occur in the Pribilofs, such as other pinnipeds, sea lions, cetaceans, and terrestrial mammals (e.g., Arctic foxes) is found in the *Alaska Guidelines*². The *Pribilof Guidelines* focus on migratory birds and fur seals because of those species’ susceptibility and vulnerability to oiling and because of the importance of those species, both biologically and as a subsistence resource.

103. Development of *Pribilof Guidelines*

The *Pribilof Guidelines* were prepared and submitted in draft form to Pribilof Islands Subgroup members for review and comment. The resulting *Pribilof Guidelines* were then presented to the Pribilof Islands Working Group and the WPWG for review and concurrence. Following incorporation of appropriate comments, the final *Pribilof Guidelines* were submitted to the U.S. Coast Guard (USCG), Environmental Protection Agency (EPA), and the Alaska Department of Environmental Conservation (ADEC) for inclusion in the *Aleutians SCP*. The *Pribilof Guidelines* were first issued on August 1, 1998. Revision 1 was issued in May 2001; Revision 2 was issued in April 2002; Revision 3 was issued in August 2005; Revision 4 was issued in November 2006; Revision 5 was issued in April 2008. Revision 6 is contained herein.

²See Appendix 7 of the *Alaska Guidelines* for information on other pinnipeds, sea lions, and cetaceans and Appendix 8 of the *Alaska Guidelines* for information on terrestrial mammals (e.g., Arctic Foxes).

104. Procedures for Revisions and Updates

The *Pribilof Guidelines* are reviewed annually by Pribilof Islands Wildlife Protection Contacts and updated as necessary. Review and revision of the document is coordinated by the U.S. Department of the Interior, Office of Environmental Policy and Compliance. Proposed changes are submitted to Pribilof Islands Wildlife Protection Contacts for their review and concurrence. If the proposed changes include substantive revisions, the revised *Pribilof Guidelines* are also submitted to the WPWG for review and concurrence. Following incorporation of appropriate comments, the final revised *Pribilof Guidelines* are submitted to the USCG, EPA, and ADEC for inclusion in the *Aleutians SCP* and subsequent distribution and placement on the internet website identified in Section 101.

105. Pribilof Guidelines Organization

Following the Introduction (Section 100), Section 200 discusses wildlife resource agency notification of oiled, or potentially-oiled, wildlife. Sections 300 and 400 identify response-related information specific to the Pribilofs for migratory birds and fur seals, respectively.

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200. Wildlife Resource Agency Notification

Wildlife resource agency representatives may be notified of oil spills or hazardous substance releases in the Pribilofs by Federal and State regulators or by Pribilof representatives as described in the following sections.

201. Notification by Federal and State Regulators

In almost all cases, oil spills and/or hazardous substance releases are reported in accordance with existing regulations by the responsible party to ADEC and the USCG or the EPA. In turn, information on the incident is provided by ADEC, USCG, or EPA to pre-identified wildlife resource agency representatives.

For spills in the Pribilof Islands that may require activation of these guidelines, wildlife resource agency representatives will notify appropriate local oiled wildlife contacts identified in Table 1A and/or Table 1B.

202. Notification by On-Island Representatives

In some cases, the responsible party fails to report oil spills or hazardous substances releases to appropriate regulatory authorities. In those cases, a spill may be first reported by local residents who may observe unusual wildlife behavior (e.g., seabirds coming ashore during the winter and continually preening), or oiled animal carcasses washing up on beaches.

Notices have been posted on St. Paul and St. George Islands that provide information to island residents or visitors on whom to contact locally if oiled, or potentially-oiled, wildlife are observed. Copies of the notices are included in Tables 1A and 1B. In the event individuals identified on the notices receive a report of oiled, or potentially-oiled, wildlife, the on-island oiled wildlife contact needs to immediately contact the appropriate wildlife resource agency emergency contacts identified in Table 2.

Table 1A

On-Island Oiled Wildlife Contacts: St. Paul Island

NOTICE

If you see oiled wildlife,
even if you are uncertain,
contact one of the following individuals:

Phillip A. Zavadil

(Wk) 546-3200/3230

(Hm) 546-2206

Dustin Jones

(Wk) 546-3200/3231

(Hm) 546-2267

Paul Melovidov

(Wk) 546-3200/3233

(Hm) 546-9363

Jason Bourdukofsky

(Wk) 546-2312

(Hm) 546-2431

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Table 1B

On-Island Oiled Wildlife Contacts: St. George Island

NOTICE

If you see wildlife that are oiled or may have been oiled, contact one of the following individuals:

St. George Traditional Council	St. George Tanaq Corporation	City of St. George
<p><i>Primary Contact:</i> Max Malavansky, Jr. (Wk) 907-859-2447 (Hm) 907-859-2323 VHF Channel 9</p> <p><i>Alternate Contact:</i> Phill Lekanof (Wk) 907-859-2445 (Hm) 907-859-2449</p>	<p><i>Primary Contact:</i> Rodney Lekanof (Wk) 907-859-2255 (Hm) 907-859-2246</p> <p><i>Alternate Contact:</i> Anthony Lekanof (Wk) 907-859-2255 (Hm) 907-859-2204 VHF Channel 9</p>	<p><i>Primary Contact:</i> Max Malavansky, Sr. (Wk) 907-859-2263 (Hm) 907-859-2459</p> <p><i>Alternate Contact:</i> Alvin Merculief (Wk) 907-859-2263 (Hm) 907-859-2418</p>

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Table 2

Wildlife Resource Agency Emergency Contacts: Pribilof Islands

Migratory Birds	Fur Seals
<p><u>DOI Primary Contact:</u> Pamela Bergmann (Wk) 907-271-5011 (Hm) 907-333-0489/ 907-357-0488 (Cell) 907-227-3783 (Fax) 907-271-4102</p> <p><u>DOI Alternate Contact:</u> Doug Mutter (Wk) 907-271-5011 (Hm) 907-345-7726 (Cell) 907-227-3781 (Fax) 907-271-4102</p>	<p><u>NMFS Primary Contact:</u> Brad Smith (Wk) 907-271-3023 (Hm) 907-248-4211 (Fax) 907-271-3030</p> <p><u>NMFS Alternate Contact:</u> Mike Williams (Wk) 907-271-5117 (Hm) 907-333-0143 (Fax) 907-271-3030</p>
<p><u>ADF&G Primary Contact:</u> Gayle Martin (Wk) 907-267-2541 (Fax) 907-267-2499</p> <p><u>ADF&G Alternate Contact:</u> Megan Marie or William Frost (Wk) 907-267-2446 or 267-2813 (Fax) 907-267-2499</p>	<p><u>ADF&G Primary Contact:</u> Gayle Martin (Wk) 907-267-2541 (Fax) 907-267-2499</p> <p><u>ADF&G Alternate Contact:</u> Megan Marie or William Frost (Wk) 907-2446 or 278-2813 (Fax) 907-267-2499</p>

300. Migratory Birds

301. General Considerations

A. Population and Distribution

The Pribilofs contain bird colonies that include more than 2.7 million birds. Principal colonial species include: murres (thick-billed and common), auklets (least, parakeet, and crested), kittiwakes (black-legged and red-legged), puffins (horned and tufted), northern fulmars, and red-faced cormorants. Auklets, particularly least and parakeet auklets, also nest extensively in boulder beach habitats on the Pribilofs. See the Environmentally Sensitive Areas maps for the Pribilofs (http://www.asgdc.state.ak.us/maps/cplans/aleut/PDFs/ESI_DATA/PRIBILOF.PDF) for population estimates by species and concentration areas.

The approximately 1 million murres that breed on St. George Island represent the largest concentration of murres in Alaska and the most numerous colonial species in the Pribilofs. In addition, approximately 85 percent of the world's red-legged kittiwakes breed on the Pribilofs. The Pribilofs are home to two of only six major breeding concentrations of northern fulmars in Alaska. St. George Island has a major concentration of parakeet auklets for Alaska; together St. Paul and St. George Islands host over 20 percent of the recorded total of parakeet auklets for the state.

A few waterfowl (primarily northern pintails, green-winged teal, and long-tailed ducks) nest in the Pribilofs. However, significant numbers of sea ducks (e.g., king eiders and harlequin ducks) inhabit offshore and nearshore waters during the winter months. In summer, huge flocks of shearwaters, numbering in the hundreds of thousands, may come close to the Pribilofs as they travel through the Bering Sea.

Together, St. Paul and St. George Islands are of major importance to a subspecies of Rock Sandpipers, which are shorebirds. In addition, the Pribilofs are uniquely important to another shorebird; namely, migrant ruddy turnstones. These birds, most of which breed in north and west Alaska, stage at St. Paul and St. George in the fall on their way to wintering grounds in the central Pacific.

The endangered short-tailed albatross (*Diomedea albatrus*) has been seen in the waters near the Pribilofs; however, the likelihood of it being present is extremely low. However, the threatened spectacled eider (*Somateria fischeri*) may be present in small numbers near the Pribilofs during the mid-to-late winter months. In addition, the threatened Steller's eider (*Polysticta stelleri*) is present in small to moderate numbers near the Pribilofs during the winter and spring.

B. Potential Oil Spill Impacts

When an oil spill occurs within migratory bird habitat, every effort should be made to prevent birds from becoming oiled. If left untreated, birds exposed to oil will most likely die. When bird's feathers become oiled, their ability to thermo regulate is compromised and they become hypothermic. In the cold waters of Alaska, this can prove deadly to marine birds. Birds may also suffer toxic effects through dermal contact and ingestion of spilled oil depending on the type of oil and its toxicity. When oiled birds are captured alive and taken to treatment centers, they can often be

cleaned, rehabilitated, and released back into their natural habitat. One of the keys to survivorship of oiled birds is ensuring a bird capture and treatment program is initiated in a timely manner.

Seabirds exhibit obvious immediate behavioral changes in response to exposure to oil. In particular, they preen excessively to clean oil from their feathers. As a result, normal activities such as feeding, nesting, and migrating are abandoned causing the birds to weaken and become more vulnerable to exposure and predation. Marine birds will abandon the water surface, their natural habitat, and move to land, when available, which can also make them more vulnerable to predation. Oil on a breeding bird's feathers can be transferred to the bird's eggs resulting in nest failure. Dermal contact with oil can cause burns and lesions which can compromise the bird's feather structure resulting in hypothermia. Ingestion of oil while preening may affect birds' metabolic processes. These can become long term or chronic effects based on the amount of preening and length of exposure time.

The severity of oiling impacts on migratory birds will depend on many factors including, but not limited to: degree of oiling and length of exposure; health of the birds prior to exposure; natural hardiness of the species; toxicity of the product spilled; and distribution of the spilled product in the environment.

Based on their physiology and behavior, different bird species exhibit different levels of susceptibility to oiling. Table 3 shows the susceptibility of the species commonly found on the Pribilofs.

302. Response Strategies

A. Primary Response Strategies

1. Oil Spills

The primary response in protecting birds from an oil spill should be to prevent the oil from reaching areas where migratory birds are concentrated. This can be done using either booms and skimmers, or where environmental considerations permit, using chemical dispersants and/or *in situ* burning. Booms and skimmers and *in situ* burning are preferable near concentrations of birds because dispersants, being detergents, reduce the insulating value of their plumage and, therefore, may cause mortality to some birds. If possible, spraying dispersants directly into large concentrations of birds should be avoided. After dispersants have mixed with water, their danger to birds is reduced, although not eliminated. In addition, oiled debris – particularly contaminated food sources – should be removed from the environment as soon as possible to prevent scavenging by birds, which results in secondary effects due to the ingestion of oil. See Section 301.B.2 and Section 302.B.2 of the *Alaska Guidelines* for information on the retrieval and disposition of dead oiled wildlife. Decisions on primary response strategies are made by the Federal On-Scene Coordinator (OSC) with input from wildlife trustee agencies and other interested parties.

Birds concentrate in various areas, depending on the species and season. If possible, the following types of areas where birds concentrate in the spring and fall should be protected following an oil spill:

Table 3

**Migratory Bird Susceptibility to Oiling:
Selected Pribilof Islands Species**

Migratory Bird Species	Susceptibility to Oiling
Alcids (e.g., Murres, Puffins, Auklets) Sea Ducks Loons Cormorants	High High High High
Gulls, Kittiwakes Pelagic Birds (e.g., Albatross, Petrels, Fulmars)	Medium Medium
Plovers, Sandpipers Song Birds	Low Low

- Seabird colonies. Birds are vulnerable to oil contamination when they are in large flocks on the water near their colony. This is a common occurrence around the Pribilof Islands during the summer when over 2.7 million birds may be at their respective colonies.
- Major seabird feeding areas. Most seabirds obtain their food at sea away from land. While they may feed in areas that are close to land or more than 100 miles offshore, they are often concentrated in small areas. As a result, the presence of oil in some feeding areas could negatively affect the majority of seabirds in the region. Feeding areas shift with the tides and seasons. Therefore, the position of large flocks fluttering over or sitting on the water should be carefully noted during reconnaissance flights, and avoided when applying dispersants (assuming dispersants are approved for use). Areas near the continental shelf break beyond the Pribilofs should be examined, in particular, since seabirds often feed in those areas.
- Wintering areas of marine birds. These include localized parts of the Bering Sea and the ice pack edge and open leads in the ice. Concentrations of birds vary during the winter. Locations of large flocks should be recorded during reconnaissance flights and avoided, when applying dispersants (assuming dispersants are approved for use). In addition, other important coastal habitats, such as marshes and lagoons (e.g., Salt Lagoon on St. Paul Island) are sensitive to oil contamination and should be protected if at risk from oil contamination, even when no birds are present.

As outlined in Section 301.B.1.a. of the *Alaska Guidelines*, field activities associated with oil spills have the potential for causing unnecessary and illegal disturbance to sensitive migratory bird species, marine mammals, and their habitats. To reduce disturbance and improve the chances for wildlife survival, FWS, NMFS, and/or ADF&G representatives (as appropriate) will reiterate, through the Federal Aviation Administration (FAA) and the Federal OSC, the importance of following existing notices to aircraft currently in place for the Pribilofs. Those advisories request pilots to remain at a certain distance from migratory bird concentration areas and critical habitats, such as seabird cliffs, and may be occasionally updated as supplements. Information on aircraft advisories for St. Paul and St. George Islands is found on Environmentally Sensitive Areas Maps at http://www.asgdc.state.ak.us/maps/cplans/aleut/PDFs/ESI_DATA/PRIBILOF.PDF.

In addition, FWS and/or ADF&G representatives (as appropriate) will provide, through the USCG, notices to mariners for areas affected by an oil spill. These advisories may request vessel operators to remain at a certain distance from migratory bird concentration areas and critical habitats, such as seabird cliffs. See Appendix 9 of the *Alaska Guidelines* for an example of a vessel advisory.

Copies of any advisories will be sent by the Federal OSC to all federal and state agency and agency-contracted spill-response personnel. In addition, a news release will be prepared by FWS and/or ADF&G representatives (as appropriate) on this subject for distribution by the Federal OSC to appropriate news media representatives (see Appendix 9 of the *Alaska Guidelines* for an example).

During a response to an oil spill, appropriate wildlife resource agencies will evaluate the potential for response activities to negatively affect sensitive migratory birds and/or their habitats. Wildlife resource agencies may recommend to the Federal OSC that response activities in or adjacent to sensitive species or areas be completed prior to or following critical biological periods. If that is not possible, wildlife resource agencies may further recommend to the Federal OSC that agency on-site

monitors accompany near-shore and/or shore-based activities to help minimize or eliminate unacceptable levels of disturbance.

2. Rats

Most of Alaska's islands, including the Pribilofs, are "rat free." The introduction of rats, which has occurred on approximately 30 Alaska islands, typically results in the decimation of the islands' seabird colonies, since the rats prey on nesting birds and their eggs. Once they are established on an island, rats are extremely difficult to eradicate.

The most likely pathway for rats to be introduced to the Pribilofs as a result of an oil spill is through the grounding of a vessel onshore or grounding or sinking of a vessel sufficiently close to shore that rats aboard the vessel could swim to shore. In addition, it is also possible for rats to drift to the Pribilofs onboard vessel debris. Vessel groundings in the Pribilofs are not uncommon. Since 1987, more than eight vessels groundings have occurred. In addition, vessels and aircraft responding to an oil spill could also inadvertently introduce rats to the islands. In the event of an oil spill that includes the use of response-related vessels or aircraft that may contain rats, FWS representatives will provide the Federal OSC with rat prevention information that will in turn be provided to appropriate spill response-related vessel and aircraft operators.

If a vessel operating in the Pribilofs experiences an emergency that results, or may result, in the vessel going aground or sinking close to shore, FWS representatives or a designated representative will seek, with the assistance of the Federal OSC, information from the vessel operator/owner on whether rats are onboard. With the concurrence of the Federal OSC, FWS representatives or a designated FWS on-scene representative will conduct an onboard inspection of the vessel to determine if rats are present. If rats are known or suspected to exist onboard the vessel, FWS representatives or a designated FWS on-scene representative will deploy rodent traps and/or poisons on the vessel, if possible, prior to or following the vessel grounding. A list of rat prevention equipment and materials currently stockpiled in the Pribilofs is provided in Table 4. A list of individuals in the Pribilofs who have been licensed and certified to use rodent poisons is provided in Table 5.

In the event it is not possible to conduct onboard rat inspection and prevention activities prior to a vessel going aground, FWS representatives will develop a rat prevention plan specific to the incident for approval by the Federal OSC. The plan will include, but not be limited to, the deployment of rat trap and poison stations in appropriate locations on the vessel and the island, individual(s) authorized to deploy and monitor the stations, and a station monitoring plan.

B. Secondary Response Strategies

Section 300 of the *Alaska Guidelines* outlines the procedures that wildlife resource agencies and responsible parties must follow to initiate and implement a bird hazing program. These procedures include the use of Appendix 24 of the *Alaska Guidelines* ("Oil Spill Response Checklist: Wildlife Hazing"). Appendix 16 of the *Alaska Guidelines* identifies State and Federal permits and/or authorizations required for hazing live animals. At this time, there are no entities in the Pribilofs

Table 4

Rat Prevention Equipment and Materials Stockpiled in the Pribilof Islands*

Location	Type of Kit	Owner	Contact Information
St. Paul Island NMFS Lab Building	1 Shipwreck Kit	Fish and Wildlife Service	Phillip A. Zavadil Tribal Govt. of St. Paul (Wk) 907-546-3200/3230 (Hm) 907-546-2206 Dustin Jones Tribal Govt. of St. Paul (Wk) 907-546-3200/3231 (Hm) 907-546-2775
St. Paul Island Combine Shop	Rat Station Supplies	Tribal Government of St. Paul	Phillip A. Zavadil Tribal Govt. of St. Paul (Wk) 907-546-3200/3230 (Hm) 907-546-2206 Dustin Jones Tribal Govt. of St. Paul (Wk) 907-546-3200/3231 (Hm) 907-546-2775
St. George Island Cottage C	1 Shipwreck Kit	Fish and Wildlife Service	Max Malavansky, Jr. (Wk) 907-859-2247 (Hm) 907-859-2323

Table 5

Pribilof Island Residents with Rodenticide Applicator License/Certification

Individual	Location	License Expiration	Certification Expiration
Hapoff Sr., Nekita V.	St. Paul Island	12/31/2009	4/30/ 2010
Jones, Dustin	St. Paul Island	12/31/2009	4/30/ 2010
Jones, Louis	St. Paul Island	12/31/2009	10/31/2010
Zacharof, Samatha	St. Paul Island	12/31/2009	3/31/2011
Zavadil, Phillip A.	St. Paul Island	12/31/2009	4/30/2010

who are pre-permitted to conduct bird deterrent activities. Appendix 17 of the *Alaska Guidelines* lists equipment and materials suggested for inclusion in a migratory bird hazing kit.

Table 6 identifies equipment and materials currently stockpiled on St. Paul and St. George Islands for deterring unoiled birds, and the appropriate contact person. Table 7 identifies Pribilof Island residents who have received bird deterrent training.

C. Tertiary Response Strategies

Section 300 of the *Alaska Guidelines* establishes the procedures that wildlife resource agencies and responsible parties must follow to initiate and implement a bird capture, stabilization, and treatment program. These procedures include the use of Appendix 1 of the *Alaska Guidelines* (“Factors that Must Be Considered when Determining when to Begin and End a Wildlife Capture and Treatment Program”) and Appendix 25 of the *Alaska Guidelines* (“Oil Spill Response Checklist: Wildlife Capture, Transportation, Stabilization, and Treatment”). Appendix 16 of the *Alaska Guidelines* identifies State and Federal permits and/or authorizations required for collecting and holding live animals. At this time, there are no entities in the Pribilofs who are pre-permitted to capture and treat oiled birds.

Table 8 identifies Pribilof Island residents who have received bird capture and stabilization training. Table 9 identifies equipment and materials currently stockpiled on St. Paul and St. George Islands, respectively, for capturing and stabilizing oiled birds, and the appropriate contact person.

Tables 10A and 10B identify potential facilities that could be used for bird stabilization on St. Paul and St. George Islands, respectively, in addition to the contact person. In the event a migratory bird capture program is initiated, the availability of one or more of these facilities for bird stabilization must be verified at that time. Following stabilization, oiled birds will be flown to Anchorage for treatment.

Table 6
Equipment and Materials Stockpiled in the Pribilof Islands
for Detering Unoiled Birds

Location	Amount of Supplies	Number of Onshore Sites Addressed with Supplies	Owner	Contact Information
St. Paul Island City of St. Paul, Public Works Department	1 shotgun/cracker shell hazing kit**	1	City of St. Paul	Louis Jones City of St. Paul (Wk) 907-546-3171/3172 (Hm) 907-546-2294
St. Paul Island AMNWR* Office, NMFS Lab	1 shotgun/ cracker shell hazing kit Mylar tape (12 rolls)	1	Fish and Wildlife Service	Phillip A. Zavadil Tribal Govt. of St. Paul (Wk) 907-546-3200/3230 (Hm) 907-546-2206 OR Mike Williams National Marine Fisheries Service (Wk) 907-271-5117 (Hm) 907-333-0143
	2 propane cannons (minus propane tanks)	1		
St. George Island Delta Western	1 shotgun/ cracker shell hazing kit Mylar tape (12 rolls)	1	Delta Western	Mike Chercasen Delta Western (Wk) 907-859-2456 (Hm) 907-859-2208
St. George Island Fish and Wildlife Service	1 cracker shell hazing kit	1	Fish and Wildlife Service	Karin Holser Fish and Wildlife Service (Wk) 907-859-2233 (Hm) 907-859-2277 OR Max Malavansky, Jr. (Wk) 907-859-2447 (Hm) 907-859-2323

*AMNWR = Alaska Maritime National Wildlife Refuge

**See Appendix 17 of the *Alaska Guidelines* for a list of the equipment and materials suggested for inclusion in the kit.

Table 7

Pribilof Island Residents with Bird Deterrent Training

Individual	Location	Bird Deterrent Training Completion Date
Jonas Lestenkof, Sr.	St. Paul Island	April 2005
Jason Simeonoff	St. Paul Island	October 2004
Max Malavansky, Jr.	St. George Island	May 2005
Alex Prokopiof	St. George Island	May 2005

Table 8

Pribilof Island Residents with Bird Capture and Stabilization Training

Individual	Location	Bird Capture and Stabilization Training Completion Date
Lestenkof, Aquilina D.	St. Paul Island	August 2004
Rukovishnikoff, Faith	St. Paul Island	August 2004
Tetoff, Peter	St. Paul Island	August 2004
Zavadil, Phillip A.	St. Paul Island	August 2004
Malavansky, Max, Jr.	St. George Island	May 2005
Merculief, James	St. George Island	May 2005
Merculief, Mark, Jr.	St. George Island	May 2005

Table 9

**Equipment and Materials Stockpiled in the Pribilof Islands
for Capturing and Stabilizing Oiled Birds**

Location	Wildlife Species/ Response Action	Estimated Birds to be Assisted with Supplies	Owner	Contact Information
St. Paul Island AMNWR* Office, NMFS Lab	Bird Capture	20 to 30 birds	Fish and Wildlife Service	Phillip A. Zavadil Tribal Govt. of St. Paul (Wk) 907-546-3200/3230 (Hm) 907-546-2206 OR Mike Williams National Marine Fisheries Service (Wk) 907-271-5117 (Hm) 907-333-0143
	Bird Stabilization	24 birds		
St. Paul Island, Delta Western Fuel Facility	Bird Capture and Stabilization	50 birds	Alaska Chadux Corporation	Initial Contact: Alaska Chadux Corporation (24-hr) 907-348-2365 <i>Then:</i> Dennis Bourdukofsky (Wk) 907-546-2404
St. George Island	None at this time	n.a.	n.a.	n.a.

*AMNWR = Alaska Maritime National Wildlife Refuge

Table 10A

**Potential Bird Stabilization Facilities:
St. Paul Island***

Facility	Owner	Contact Information	Comments
Tribal ECO Recycling Center	Tanadgusix Corporation	Jason Bourdukofsky (Wk) 907-546-2312	Facility inspected August 2004
TDX Poss Camp	Tanadgusix Corporation	Jason Bourdukofsky (Wk) 907-546-2312	Facility inspected August 2004
Machine Shop	City of St. Paul**	Myron Melovidov (Wk) 907-546-3181	Facility inspected August 2004
NMFS Lab	National Marine Fisheries Service	Phillip A. Zavadil (Wk) 907-546-3200/3230 OR Mike Williams (Wk) 907-271-5117	Facility inspected August 2004
Public Works Trades Building	City of St. Paul**	Joe Reller (Wk) 907-546-3174	Facility inspected August 2004
Recreation Center	Tanadgusix Corporation	Jason Bourdukofsky (Wk) 907-546-2312	Facility inspected August 2004
Old Post Office	Tribal Government	Phillip A. Zavadil (Wk) 907-546-3200	Facility inspected August 2004
Pole Star Building	City of St. Paul**	Louis Jones (Wk) 907-546-3173	Facility inspected August 2004

*In the event a migratory bird capture program is initiated, the availability of these facilities must be verified at that time.

**During non-work hours, City of St. Paul employees may be contacted via the Public Safety dispatch service at 907-546-3132.

Table 10B

**Potential Bird Stabilization Facilities:
St. George Island***

Facility	Owner	Contact Information	Comments
City of St. George Public Safety Building	City of St. George	Alvin Mercurief (Wk) 907-859-2263	Facility Inspected May 2005
School Lab	Pribilof School District	Jamie Stacks (Wk) 907-546-3321	Facility Inspected May 2005
City Machine Shop	City of St. George	Alvin Mercurief (Wk) 907-859-2263	Facility Inspected May 2005
Carpenter Shop	St. George Tanaq Corporation	Rodney Lekanof (Wk) 907-859-2255	Facility Inspected May 2005

*In the event a migratory bird capture program is initiated, the availability of these facilities must be verified at that time.

400. Northern Fur Seals

401. General Considerations

A. Population and Distribution

The Pribilofs provide breeding grounds for approximately 60 percent of the world's population of northern fur seals. Hundreds of thousands of these animals return to the Pribilofs each summer to give birth and breed. The world population of the northern fur seal is estimated at 1.1 million. The U.S. population of northern fur seal has declined by over 60 percent in recent decades from over 2 million in the 1970s, to an estimated 722,000 in 2004. The species is currently listed as depleted under the Marine Mammal Protection Act. The Pribilof fur seal population has declined about 6 percent annually during the last decade.

Northern fur seals are highly migratory and range along a broad arc across the north Pacific from the Sea of Japan through the southern Bering Sea to the Channel Islands (i.e., San Miguel Islands) off southern California. With the exception of the San Miguel breeding population, the animals migrate north in the spring to several Bering Sea and North Pacific breeding islands. Each year, the majority of these animals use several discrete shoreline locations on the Pribilofs for mating, pupping, and non-breeding landing sites. Together these sites are referred to as rookeries.

Important rookeries on St. Paul Island are found from Zapadni Point to Tolstoi Point (i.e., English Bay rookeries), along the shoreline of the peninsula south of the City of St. Paul (i.e., Reef Point rookery) and an offshore rock (i.e., Sea Lion Rock rookery), from Black Bluffs to north of Lukanin Point (i.e., Kitovi and Lukanin Rookeries), along the eastern shoreline near Polovina Point (i.e., Polovina Rookeries), and along both shorelines of the northernmost tip of the island (i.e., Northeast Point Rookeries). St. George Island also has several important northern fur seal rookeries found along the north coast from First Bluffs to the City of St. George (i.e., Staraya Artil and North Rookeries), east of the city toward Tolstoi Point (i.e., East Rookeries), and along the southwest coast from the harbor directly south (i.e., Zapadni and South Rookeries). It should also be noted that non-breeding northern fur seals also land at Otter and Walrus Islands. For rookery locations on St. Paul and St. George Islands, see Environmentally Sensitive Areas maps at http://www.asgdc.state.ak.us/maps/cplans/aleut/PDFs/ESI_DATA/PRIBILOF.PDF.

Large numbers of northern fur seals are found in nearshore waters of the Pribilofs during the periods in which the beaches are occupied. Pups are found along the shoreline and in tide pools as they are learning to swim. The boat harbor and adjacent Salt Lagoon on St. Paul Island may contain up to 1,000 northern fur seal pups and 50 male juvenile northern fur seals from September through November.

Adult male northern fur seals arrive at the breeding sites on the Pribilofs in mid-May. Adult males aggressively defend their territories from mid-May through August, and are likely to charge anyone entering the rookery. Adult females arrive in mid-June and are present on the rookeries until December. Adult female northern fur seals are aggressive and are also likely to charge if cornered. Juvenile northern fur seals arrive in mid-May and may be present in groups of 100 or less during December, and are gone by January. Juvenile northern fur seals and pups normally avoid humans on

land and in some cases will stampede towards the water, however, they are also likely to attack if cornered or handled.

While northern fur seals are no longer hunted commercially, they continue to be an important subsistence food source to the native Aleut communities on St. Paul and St. George Islands. Pribilof Island residents may harvest up to 1,800 sub-adult northern fur seals each summer.

B. Potential Oil Spill Impacts

In the event of an oil spill contacting either St. Paul or St. George Islands during the breeding period, a maximum of approximately 75 to 80 percent of the Pribilof fur seal population could be vulnerable. A significant oil spill during June through October could have major impacts to many of the animals feeding around the islands, as well as to those animals on or near rookeries. This assumption is reinforced by work conducted by Minerals Management Service for a March 1987 analysis of the potential effects of offshore oil production near the Pribilofs. One-twentieth of the potential loss from the oil spill simulation in the St. Paul scenario alone would be a major environmental incident (more than 1,200 fur seals killed) and would overwhelm any potential northern fur seal rehabilitation capabilities.

The thick pelage of northern fur seals constitutes the principal element of their thermoregulatory mechanism, which restricts heat loss to the surrounding environment. Oiling has been shown to increase the thermal conductance of the pelts 1.4 to 2.0 times. A light oiling (about 30 percent of the pelt surface) has been shown to result in an approximately 50 percent greater heat loss when the northern fur seals are immersed in water. The consequence of any loss of insulation will vary with individual animals. Newborn pups are generally the most vulnerable, particularly when the mother leaves the rookery typically for several days to forage. The physical condition of animals will also cause variable effects from any oiling. Young pups, breeding males just returning to sea, and lactating females probably have less fat for insulation than other segments of the population and therefore may be most susceptible to the negative effects of oiling.

From June to December, northern fur seals concentrate on the breeding grounds of the Pribilofs. Sub-adult animals, adult females, and non-breeding males all frequently return to the sea to feed during this period, and could be exposed to floating oil. By early September, all animals including pups regularly enter the water and would be potentially vulnerable to a marine spill. Fur seal pups often congregate in tidal pools and shallow nearshore waters where oil may become trapped or concentrated. The risk of nearshore oiling may therefore be greater to pups than adults.

Inhalation of petroleum product vapors may result in increased levels of hydrocarbons within blood and tissues of pinnipeds, including northern fur seals. The toxic effect of inhalation may be serious, particularly during the first few hours of a spill when volatile fractions are given off, or for spills of refined products (i.e., gasoline or diesel fuel), which contain higher percentages of these compounds. Possible effects include lethargy, sickness, and destruction of the central nervous system. Exposure to high concentrations of volatiles may result in the mortality of some northern fur seals.

Direct exposure to hydrocarbons has been observed to cause irritation to eyes and mucous membranes in pinnipeds. Ingestion of oil may also have deleterious effects, although it is not anticipated that this would be a significant concern for northern fur seals. However, of the potential oil spill impacts on northern fur seals, oiling of the pelage represents the most significant impact and is of primary concern versus other routes of exposure.

In the event that an oil spill approaches or contacts a rookery, clean up efforts may be directed to both nearshore and offshore regions. Disturbance to northern fur seals may result from the presence of oil-spill response workers and associated aircraft, vessel, and ground support vehicles. Northern fur seals may respond to human presence by immediate departure from the area. Prolonged or intense disturbance could result in abandonment of the site. Disturbance during the breeding season could result in increased mortality of fur seal pups due to disrupted nursing, early weaning, or crushing due to stampedes of frightened animals.

402. Response Strategies

A. Primary Response Strategies

Primary response measures are the most effective and realistic means of protecting and maintaining the Pribilof's northern fur seals. The National Marine Fisheries Service (NMFS) is currently researching various countermeasures to prevent spills from contacting pinnipeds, including northern fur seals, and their habitat and to remove hydrocarbons from contaminated beaches. Sorbent materials such as pads and sausage booms are effective when used on refined product spills, such as diesel and gasoline. These devices would be the first line of defense for spills in the St. Paul and St. George boat harbors and in Salt Lagoon on St. Paul Island. Heavier oils such as crude or Bunker C may be picked up with containment booms, oleophilic materials such as pom poms, and natural sorbent materials. A peat moss-based material, Sphag-sorb, was successfully used on a February 1997 oiled fur seal rookery in Uruguay and has now been stockpiled on St. Paul Island, as shown in Table 11.

High-volume, low pressure flushing with ambient temperature water may be the most effective means of oil removal from many Pribilof shorelines. High temperature/high pressure washing is discouraged, as it may change the substrate on a rookery beach and may also alter the ability of a fur seal to locate a rookery using its sense of smell.

The use of chemical shoreline cleaning agents has been shown to be only marginally effective, and introduces additional chemicals and odors onto the rookeries. Therefore, NMFS does not support the use of chemical shoreline cleaning agents on fur seal beaches.

As outlined in Section 301.B.1.a. of the *Alaska Guidelines*, field activities associated with oil spills have the potential for causing unnecessary and illegal disturbance to fur seals and their habitats. To reduce disturbance and improve the chances for fur seal survival, NMFS and/or ADF&G representatives (as appropriate) will reiterate, through the FAA and Federal OSC, the importance of abiding by existing notices to aircraft currently in place for the Pribilofs. Those advisories request pilots to remain at a certain distance from fur seal concentration areas and critical habitats, such as

Table 11

Materials Stockpiled in the Pribilof Islands for Fur Seal Protection*

Location	Amount of Supplies	Owner	Contact Information
St. Paul Island north of Garco Building in 20 foot connexes	1,400 30-pound bags of Sphag-sorb	National Marine Fisheries Service	<p>Brad Smith National Marine Fisheries Service (Wk) 907-271-3023 (Hm) 907-248-4211</p> <p style="text-align: center;">OR</p> <p>Mike Williams National Marine Fisheries Service (Wk) 907-271-5117 (Hm) 907-333-0143</p> <p style="text-align: center;">OR</p> <p>Tom Gelatt National Marine Mammal Laboratory (Wk) 206-526-4045</p>

*NMFS purchased 6, 30-pound bags of Sphag-sorb and a self-contained spill response kit of Sphag-sorb to be stored on St. George Island. Currently located in Anchorage, the materials will be moved to St. George Island in 2009.

rookeries. Information on aircraft advisories may be found on Environmentally Sensitive Areas maps (see http://www.asgdc.state.ak.us/maps/cplans/aleut/PDFs/ESI_DATA/PRIBILOF.PDF) for both islands.

In addition, NMFS and/or ADF&G representatives (as appropriate) will provide, through the Federal OSC, notices to mariners for areas affected by an oil spill. These advisories may request vessel operations to remain at a certain distance from fur seal concentration areas and critical habitats. See Appendix 9 of the *Alaska Guidelines* for an example of a vessel advisory.

Copies of any advisories will be sent by the Federal OSC to all federal and state agency and agency-contracted spill-response personnel. In addition, a news release will be prepared by NMFS and/or ADF&G representatives (as appropriate) on this subject for distribution by the Federal OSC to appropriate news media representatives (see Appendix 9 of the *Alaska Guidelines* for an example).

In addition, oiled debris – particularly contaminated food sources and dead, oiled fur seals – should be removed from the environment as soon as possible to prevent scavenging by other wildlife, which may result in secondary effects due to the ingestion of oil. See Section 301.B.2 and Section 302.B.2 of the *Alaska Guidelines* for information on the retrieval and disposition of dead oiled wildlife.

B. Secondary Response Strategies

It may be feasible to deter northern fur seals from a particular area in some situations. Spills within the St. Paul Island harbor and Village Cove area may put several hundred northern fur seals at risk, many of which are likely to be pups or juveniles. NMFS personnel or other designated individuals may use seal bombs to prevent these animals from entering oiled areas of the harbors.

Likewise, northern fur seals may be herded by small boats into the outer portions of Village Cove or into Salt Lagoon. It may also be possible to move animals off or to one portion of a beach or rookery to prevent oiling or to clean up oiled shorelines. However, this would not be feasible for territorial animals and would risk separating mother/pup pairs. Because pups in the harbor are not suckling, mother/pup reunions would not be disrupted during any deterrent efforts. Only on-site NMFS personnel would be authorized to initiate and direct any deterrent actions in order to avoid driving animals into oiled areas, causing stampedes or large flight reactions into the water, or increasing metabolic stress.

C. Tertiary Response Strategies

The *Alaska Guidelines* recognize that capture and cleaning of oiled northern fur seals is generally not feasible. Adult northern fur seals, particularly territorial males, are aggressive by nature, and typically could not be safely approached while ashore. It is not presently known to what extent an adult fur seal would be affected by oiling, and most efforts to capture are likely to present greater risk to the animal. Tranquilization, for example, may itself cause the death of an animal even when administered by a veterinarian, and would certainly diminish an animal's resistance to the effects of oiling and exposure. In addition, transportation of animals across rough terrain to treatment centers would also be difficult or impossible, and very dangerous to personnel. Finally, many logistical

requirements for the treatment of northern fur seals, such as a large heated building, holding pens for large animals, and high-capacity hot water systems, cannot be met at this time on the Pribilofs.

Although fur seal pups could be captured during certain times of the year, such actions would rarely be justified. Seal pups are wholly dependent upon their mother's milk and cannot digest solid food. Pups removed from a rookery for several days may never reunite with their mothers and would likely die of starvation. If pups were transferred off-island for treatment, the mother/pup bond would be lost. During the 1997 T/V *San Jorge* spill in Uruguay, oiled fur seal pups left on site continued to receive attention and be suckled. If northern fur seal pups are oiled, their condition may improve after they molt in September and October.

Past attempts to rehabilitate oiled pinnipeds have been expensive and not very successful. When time, labor, and resources are limited, captive cleaning and rehabilitation would not only be of dubious value, but could detract from more humane or effective measures such as deterrence, booming, and oil recovery. Humane euthanasia under the supervision of a veterinarian should be followed to alleviate suffering for individual animals with no chance of survival.