

**Canada - United States
Marine Spill Pollution Contingency Plan**

**CANUSLANT Annex - Operational Appendix:
Wildlife Response Guidelines**

Canada-United States Wildlife Response Working Group

June 2010

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The attached *Canada-United States Marine Spill Pollution Contingency Plan, CANUSLANT Annex - Operational Appendix: Wildlife Response Guidelines (CANUSLANT Wildlife Response Guidelines)* have been adopted by the undersigned Canadian and United States officials to provide guidance to wildlife resource agency representatives in coordinating or conducting response activities for wildlife that are oiled or potentially-oiled when the annex is activated. The *CANUSLANT Wildlife Response Guidelines* were designed to facilitate the initiation and conduct of selected wildlife-related response activities to help ensure that those activities are conducted in a timely, efficient, and coordinated manner.

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Figure 1. Area covered by the JCP/Atlantic Geographic Annex

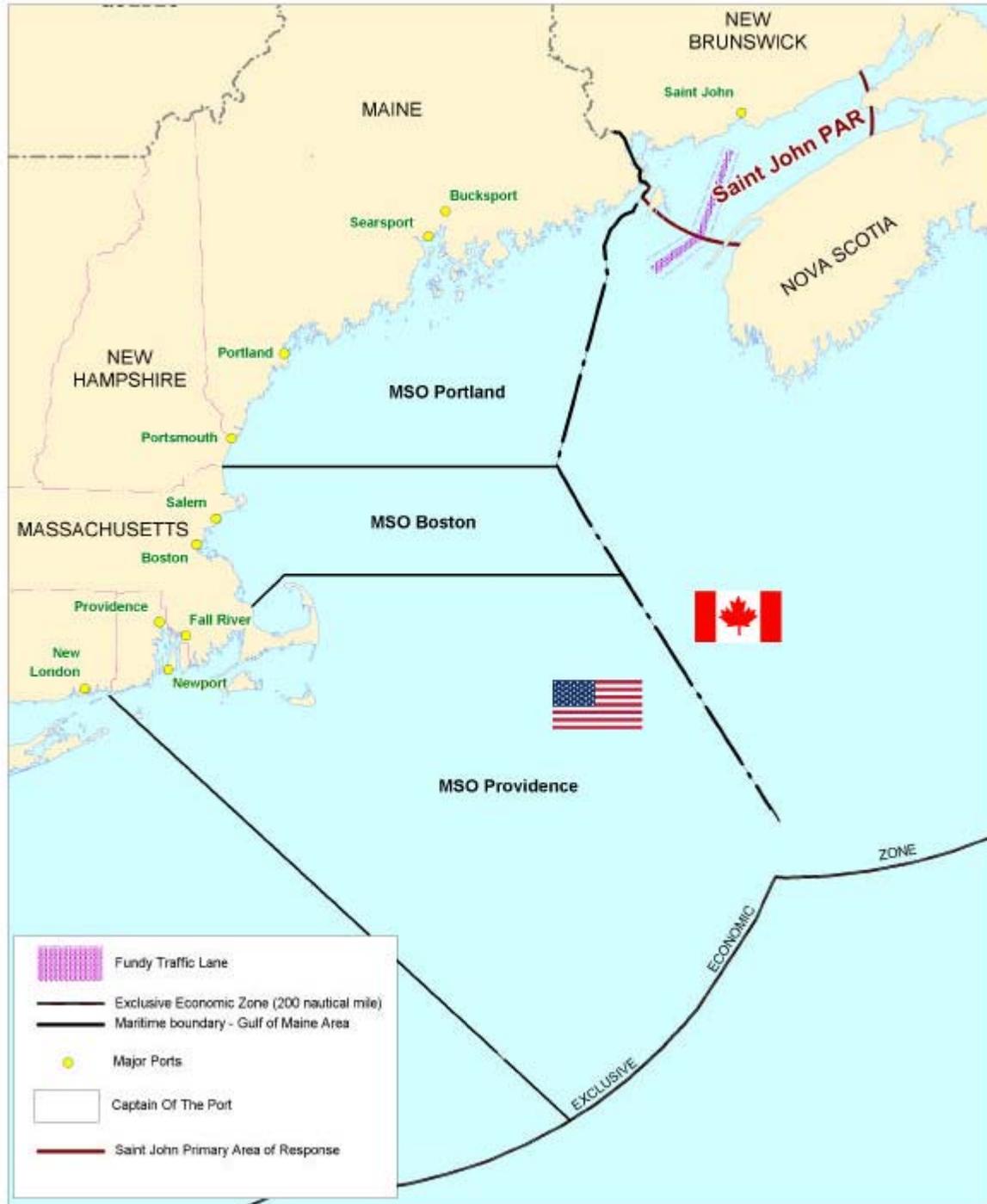


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LIST OF ACRONYMS

CANUSLANT	Canada-United States Atlantic
CCG	Canadian Coast Guard
CITES	Convention on International Trade in Endangered Species of Wildlife Fauna and Flora
CWS	Canadian Wildlife Service
DFO	Fisheries and Oceans Canada
DOC	U.S. Department of Commerce
DOI	U.S. Department of the Interior
EC	Environment Canada
FOSC	Federal On-Scene Coordinator
GPS	Global Positioning System
MBCA	Migratory Birds Convention Act
MBM	Migratory Bird Management
MDEP	Maine Department of Environmental Protection
MDIFW	Maine Department of Inland Fisheries and Wildlife
NBDNR	New Brunswick Department of Natural Resources
NMFS	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
OEPC	Office of Environmental Policy and Compliance
OMA	Office of Management Authority
OSC	On-Scene Commander
REET	Regional Environmental Emergency Team
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service

I. INTRODUCTION

A. Background and Objectives

The CANUSLANT area (Figure 1) provides important seasonal habitat for significant numbers of migratory birds and marine mammals. Many of these wildlife species support hunting and tourism.

Significant numbers of birds migrate through or breed in the area, including waterfowl, seabirds, shorebirds, and bald eagles. Although most birds are in the area during the spring, summer, and fall, both waterfowl and bald eagles over winter. The entire provincial wintering population of the harlequin duck, listed as endangered in New Brunswick, occurs in the outer Bay of Fundy. The numerous seabird colonies in the area range from hundreds to thousands of birds. Notable species of colonial breeding birds include some terns, storm petrels, razorbills, common murrelets, puffins, and common eiders.

Harbor seals, grey seals, minke whales, harbor porpoises and dolphin species may also be present in the CANUSLANT area throughout the year. Several species of at risk baleen whales, including the fin, blue and right whale, migrate through the area and stop to feed throughout the year. Four species of marine turtles, including the at risk Leatherback Turtle, are found in the Gulf of Maine. Terrestrial wildlife in the area that are vulnerable to discharges of petroleum products include black bear, moose, white-tailed deer, coyote, red fox, river otters, beaver, mink, and weasels. For a complete listing of endangered and protected species that could be present in the CANUSLANT area, please refer to <http://www.fws.gov/endangered>, <http://www.nmfs.noaa.gov/pr/species/>, http://www.maine.gov/ifw/wildlife/species/endangered_species/index.htm, <http://www.gnb.ca/0078/SpeciesAtRisk/index-e.asp>, and <http://www.sararegistry.gc.ca>.

Because of their interdependence with the marine environment, these wildlife species 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 depends on variables such as the location and size of the spill, characteristics of the oil, weather and water conditions, types of habitats affected, and seasonality.

The 2002 CANUSLANT exercise report recommended forming a Canadian-United States Wildlife Response Working Group with representatives from the respective wildlife resource agencies. The purpose of the working group was to develop wildlife response guidelines for keeping wildlife away from oiled areas and for capturing and treating individuals of selected wildlife species that become oiled. This document, the *Canada-United States Marine Spill Pollution Contingency Plan, CANUSLANT Annex - Operational Appendix: Wildlife Response Guidelines (CANUSLANT Wildlife Response Guidelines)*, is the result of that process, and has further benefited from testing during the CANUSLANT 2007 exercise. It contains guidelines that will be used when the CANUSLANT annex is activated to facilitate coordinated, timely, and appropriate wildlife protection activities in the CANUSLANT area. It was further agreed that the

goal of this effort is to ensure that decisions regarding wildlife-response activities are based on what is best for the wildlife resources (without putting human life at risk), and then to determine how the goal can be accomplished within the constraints of each country's regulatory process.

B. Wildlife Resources Addressed

Appendix 1 identifies the Canadian and U.S. wildlife resource agencies having management responsibility for selected wildlife in the CANSULANT area. The *CANUSLANT Wildlife Response Guidelines* focus on migratory birds and, to a lesser extent, marine mammals because of their susceptibility and vulnerability to oiling, specialized ability to handle these animals, and because these species move across the CANSULANT area.

“Migratory birds” on the Canadian side of border are under the jurisdiction of the Environment Canada-Canadian Wildlife Service and include those species identified in the Migratory Birds Convention Act (MBCA). “Migratory birds” on the U.S. border are under the jurisdiction of the U.S. Department of the Interior-Fish and Wildlife Service (USFWS) and the Maine Department of Inland Fisheries and Wildlife (MDIFW) and include those species identified in the Migratory Bird Treaty Act. The remainder of these guidelines also addresses the “non-migratory bird species” that occur on the Canadian side of border. Those species, which are under the jurisdiction of the New Brunswick Department of Natural Resources (NBDNR), include, but are not limited to: grouse, hawks, owls, eagles, falcons, cormorants, vultures, pelicans, crows, jays, blackbirds, and kingfishers.

Decisions about keeping unoiled terrestrial wildlife away from a spill and/or the capture and treatment of terrestrial wildlife will be made on a case-by-case basis by NBDNR and MDIFW representatives for the geographic areas under their respective jurisdiction.

Decisions regarding keeping unoiled pinnipeds and cetaceans away from a spill and/or the capture and treatment of pinnipeds and cetaceans will be made on a case-by-case basis by Fisheries and Oceans Canada (DFO) and U.S. Department of Commerce, National Marine Fisheries Service (DOC-NMFS) representatives for the geographic area under their respective jurisdiction.

The *CANUSLANT Wildlife Response Guidelines* are based on the following three wildlife response strategies:

- Primary response strategies, which emphasize controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially affected species and/or their habitat. These strategies include use of mechanical recovery and (if approved) chemical counter measures; oiled carcass removal; and disturbance minimization.
- Secondary response strategies, which emphasize keeping wildlife that could be oiled away from oiled areas by deterrents or other techniques.

- Tertiary response strategies, which address the capture and treatment of oiled wildlife and seabird island rat countermeasures as needed during the breeding season.

C. Development of *CANUSLANT Wildlife Response Guidelines*

The *CANUSLANT Wildlife Response Guidelines* were prepared by the CANUSLANT Wildlife Response Working Group¹ and will be submitted to the Canadian Coast Guard (CCG) Atlantic Region Regional Director and U.S. Coast Guard (USCG) First Coast Guard District Commander and other interested parties for review and comment. After appropriate comments are incorporated, the revised document will be presented to CCG Atlantic Region Regional Director and USCG First Coast Guard District Commander for concurrence and inclusion in the *Canada-United States Marine Spill Pollution Contingency Plan*.

D. Procedures for Revisions and Updates

The *CANUSLANT Wildlife Response Guidelines* will be reviewed and updated as needed by the CANUSLANT Wildlife Response Working Group members. The CANUSLANT Working Group Chairperson will coordinate review of the document. Following CANUSLANT Wildlife Working Group member review of any proposed changes, the revised *CANUSLANT Wildlife Response Guidelines* will be submitted to the CCG Atlantic Region Regional Director and USCG First Coast Guard District Commander for review, concurrence, inclusion in the *Canada-United States Marine Spill Pollution Contingency Plan*, and subsequent distribution.

E. *CANUSLANT Wildlife Response Guidelines* Organization

The *CANUSLANT Wildlife Response Guidelines* are divided into the following sections:

- Introduction
- Assumptions
- Wildlife Resource Agency Notification and Coordination
- Migratory Birds
- Marine Mammals

¹ CANUSLANT Wildlife Response Working Group members include: representatives from Environment Canada, Canadian Wildlife Service; Fisheries and Oceans Canada; New Brunswick Department of Natural Resources, Fish and Wildlife Branch; U.S. Department of the Interior, Office of Environmental Policy and Compliance; U.S. Department of the Interior, Fish and Wildlife Service; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, and Maine Department of Inland Fisheries and Wildlife.

The Background and Introductory section, which outlines the purpose and origin of the guidelines, is followed by a list of assumptions agreed upon by Canadian and U.S. wildlife resource agency representatives that provide the basis for the *CANUSLANT Wildlife Response Guidelines*. The “Wildlife Resource Agency Notification and Coordination” section describes the appropriate wildlife resource agency contacts for the CANUSLANT annex and how Canadian and U.S. wildlife resource agency representatives will coordinate wildlife response-related activities following activation of the CANUSLANT annex. The sections on migratory birds and marine mammals provide information on the population and distribution of the species in the CANUSLANT area; a description of potential oil-related impacts to those species; species-specific response strategies; and how those response activities will be coordinated between Canadian and U.S. wildlife resource agency representatives.

II. ASSUMPTIONS

The *CANUSLANT Wildlife Response Guidelines* are based on the following assumptions² :

- Canadian and U.S. Wildlife resource agency representatives will provide the CCG On-Scene Commander (OSC) and the USCG Federal On-Scene Coordinator (FOSC) agreed-upon protocols for removing oiled carcasses from the environment. The removal of oiled carcasses will be overseen by appropriate wildlife resource agency representatives.

- Recommendations on whether to deter wildlife away from oiled areas, conduct pre-emptive capture of unoiled marine mammals, and/or capture, stabilize, and treat oiled migratory birds and/or marine mammals will be made jointly by the appropriate Canadian and U.S. wildlife resource agency representatives and then will be submitted to the CCG OSC and the USCG FOSC for approval.
 - Public announcements regarding wildlife response recommendations and activities will be released through the CCG/USCG Joint Information Center in consultation with the appropriate wildlife resource agencies.

 - Actions taken to keep wildlife away from oiled areas will be coordinated among appropriate Canadian and U.S. wildlife resource agency representatives to ensure the activities are not in conflict. Actions taken will be overseen or conducted by the appropriate Canadian or U.S. wildlife resource agency representatives in their respective area.

- Oiled bird capture and treatment programs will be overseen/monitored by USFWS on the U.S. side of the border, and by the Environment Canada-Canadian Wildlife Service (CWS) on the Canadian side of the border, in cooperation with their State and Provincial partners.

² These assumptions apply in both Responsible Party- and CCG/USCG-led responses. Wildlife resources agency representatives will coordinate, as appropriate, with Responsible Party wildlife-response personnel and/or wildlife-response contractors.

- Pre-emptive capture or deterrence of unoiled marine mammals and/or capture of marine mammals from the CANUSLANT area will be overseen by the NMFS for response on the U.S. side of the border and overseen by DFO on the Canadian side of the border. In the case of cross-jurisdictional events or if assistance is requested by the neighboring country, NMFS and DFO will follow established protocols developed for these communications.
- Canadian and U.S. wildlife resource agency representatives are responsible for funding their respective personnel and associated expenses for wildlife-response-related activities and for requesting reimbursement via their normal respective reimbursement procedures.
- Expenses associated with wildlife response-related activities (e.g., hiring bird capture and treatment contractors and/or acquiring wildlife response equipment, materials, and supplies) will be paid by the Responsible Party or by the CCG and/or USCG.
- Wildlife response-related equipment, materials, supplies, and personnel may be transferred across the Canada/U.S. border without special permits during the emergency phase of the response as outlined in Section VIII of the *Canada-United States Marine Spill Pollution Contingency Plan, CANUSLANT Annex - Operational Appendix*. Additional considerations are addressed in Appendix 15 of this document.
- Individuals conducting migratory bird capture and treatment in New Brunswick and Maine will have appropriate training under currently established guidelines and procedures³. In most cases, these will be wildlife resource agency personnel or wildlife rehabilitation contractors rather than general public.
- Decisions regarding the secondary and tertiary response options for terrestrial wildlife will be made on a case-by-case basis by NBDNR and MDIFW representatives in the geographic area under their respective jurisdiction.
- Decisions regarding secondary and tertiary response options for marine mammals will be made on a case-by-case basis by DFO and NMFS representatives for pinnipeds and cetaceans in the geographic area under their respective jurisdiction.

III. WILDLIFE RESOURCE AGENCY NOTIFICATION AND COORDINATION

A. Notification

Section VII of the *Canada-United States Marine Spill Pollution Contingency Plan, CANUSLANT Annex - Operational Appendix* identifies the circumstances under which the annex

³ Examples include, but are not limited to: U.S. Fish and Wildlife Service. November 2003. Best Practices for Migratory Bird Care During Oil Spill Response. 86 pp.; White, J. s. Patton, A. Kasker and J. Lainson. 1998. 86 pp.; Recommended Protocols for the Care of Oil-affected Birds. Pacific States-British Columbia Oil Spill Task Force. 73 pp.; Beaulieu, D., and G. Fitzgerald. 1998. Guide d'intervention d'urgence lors de versements d'hydrocarbures: Rehabilitation d'oiseau contaminés. Unior Quebecoise de Rehabilitation des oiseux proie. 28 pp.

may be invoked. In the event the annex is invoked, in Canada, appropriate DFO, Environment Canada, and CWS representatives will be notified by the 24/7 on-call EC Emergency Duty Officer. In the U.S., appropriate DOI, USFWS, and NMFS representatives will be notified (24/7) by the USCG FOSC's representative. Appropriate MDIFW representatives will be notified (24/7) by a Maine Department of Environmental Protection (MDEP) representative. Canadian and U.S. wildlife resources agency contacts for the CANUSLANT area are listed in Appendix 2.

As soon as practicable following their respective notification by CCG and USCG representatives, Canadian and U.S. wildlife resource agency representatives will contact each other to begin coordinating wildlife response information and activities. Initial coordination will include, but not be limited to: (1) how to obtain "real time" information on wildlife resources affected or potentially-affected by the incident; (2) when and how (if necessary) resources agency representatives will travel to the incident area; (3) what entities (if any) need to be placed "on alert"; and (4) when the CCG OSC and USCG FOSC may expect to begin receiving recommendations regarding wildlife response-related activities.

B. Coordination

Following activation of the CANUSLANT Annex, the CCG OSC and the USCG FOSC will coordinate their response efforts, but will not fully integrate their response structures. It is currently anticipated that their response structures will initially be in separate locations, with the CCG in Canada and the USCG in the U.S. Both the CCG and USCG response structures will receive advice and input on wildlife response activities through the appropriate Canadian and U.S. wildlife resource agency contacts. If appropriate, Canadian and U.S. wildlife resource agencies will assign wildlife resource agency liaisons to work with their respective organization to help facilitate the coordination of wildlife response-related activities.

Wildlife resource agency representatives for wildlife in the Canadian portion of the CANUSLANT area will work through the Regional Environmental Emergency Team (REET). Wildlife resource agency representatives for wildlife in the U.S. portion of the CANUSLANT area will work in the Environmental Unit in the Planning Section, in coordination with the Operations Section/Wildlife Branch, or in the Joint Environmental Section if established consistent with Section VI, and Appendix K of the Atlantic Geographic Annex to the Joint Marine Pollution Contingency Plan (CANUSLANT). Both Canadian and U.S. wildlife resource agencies representatives will physically co-locate with their respective CCG and USCG counterparts as appropriate.

IV. MIGRATORY BIRDS

A. General Considerations

1. Population and Distribution

The CANUSLANT area has high levels of biodiversity and productivity in part due to its estuaries and tremendous tides that circulate nutrient rich water from deeper waters and stimulate phytoplankton growth throughout the year. The estuaries are critically important as nurseries for larval and juvenile invertebrates and fish, and as feeding and nesting areas for migratory fish and birds. Estuaries, mudflats, saltmarshes, and off shore islands of Grand Manan Channel, Cobscook Bay, Passamaquoddy Bay and the Bay of Fundy are significant wildlife habitats at the boundary between Maine and New Brunswick.

Tens of thousands of shorebirds, of 33 species including turnstones, plovers, sandpipers, dowitchers, curlews, godwits, use the areas for feeding and roosting on their fall, southerly migration. The CANUSLANT area is recognized as a critical staging region for migratory shorebirds in the western Atlantic Flyway. The area was historically a common place for red-necked phalaropes to concentrate in numbers of 250,000 to 1,000,000. The purple sandpiper is the only shorebird that is a regular winter resident in the CANUSLANT area.

The irregular shoreline and strong tidal flow keep the bays relatively free of winter ice and make them a very attractive area for the 20 species of waterfowl that spend the winter in coastal waters. Cobscook Bay may winter as much as 25% of the State of Maine black duck population. Other waterfowl that use the area include common eider, three species of scoter, long-tailed duck, common and Barrow's goldeneye, bufflehead, common merganser, mallard, and Canada goose. The entire provincial population of the harlequin duck, listed as endangered in New Brunswick, and over 30,000 waterfowl are known to winter in the outer Bay of Fundy.

There are several seabird nesting islands in the CANUSLANT area providing nesting habitat. Migratory, non-breeding and offshore island breeding seabirds visit these waters. These species include common murre, common tern, and Leach's storm-petrel (all state-listed special concern species in Maine); roseate tern (federally-listed as endangered in the U.S. and Canada), Arctic tern, Atlantic puffin, razorbill (all state-listed as threatened in Maine); as well as black guillemot, great black-backed and herring gulls, double-crested cormorants, and common eiders. Over 100,000 alcids are known to winter offshore in the CANUSLANT area.

Finally, there is a higher concentration of nesting bald eagle (federally-listed as threatened in the U.S.) pairs in Cobscook Bay and Passamaquoddy Bay than anywhere else in Maine.

2. Potential Oil Spill Impacts

a. Petroleum Products

Most birds that contact oil will die before they can be captured. Toxic effects may result from ingestion of oil and/or hypothermia caused by injury to their plumage. Birds captured alive and taken to treatment centers can often be cleaned, rehabilitated, and released. However, mortality following arrival at a treatment center in some circumstances may be high, due to the effects of oil or stresses associated with handling and captivity. The proportion of birds brought to a treatment center to those that are released can be expected to vary. Of the birds released, not all can be expected to survive. Therefore, every effort should be made to prevent birds from becoming oiled.

Seabirds exhibit obvious immediate behavioral changes in response to exposure to oil. In particular, they begin preening to clean oil from their feathers. As a result, normal activities such as feeding, nesting, and migrating are abandoned. In addition, skin contact or ingestion of oil due to preening may have long-term chronic effects on birds' metabolic processes. The severity of those effects will depend on factors including, but not limited to the species contaminated, health of the birds prior to exposure, type of petroleum product, degree and length of exposure, and distribution of oil in the environment.

To date, a wide variety of migratory birds have been affected by oil spills. The long-term implication of those effects is just beginning to be understood. Seabirds, such as the Atlantic puffin, that have low reproductive rates may require decades to rebuild population levels to pre-spill numbers.

Bird species exhibit different levels of susceptibility to oiling. Appendix 3 shows the susceptibility of the species commonly found in the CANUSLANT area. 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:

- 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 island complexes during the summer when thousands of 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. Some seabirds, such as storm-petrels, are nocturnal feeders.
- Wintering areas of marine birds. These include near-shore waters of New Brunswick and Maine. Concentrations of birds vary during the winter. Several alcid species concentrate in large flocks off shore in the CANUSLANT area.

In addition, other important coastal habitats, such as marshes, are sensitive to oil contamination and should be protected if they are at risk from oil contamination even when no birds are present.

b. Rats

Most islands in the CANUSLANT area are believed to be “rat free”. The introduction of rats from shipwrecks could result in significant mortality of the islands’ seabird colonies during the immediate nesting season, because the rats prey on nesting birds and their eggs.

The most likely pathway for rats to be introduced to these islands as a result of an oil spill is through the grounding of a vessel onshore or grounding of a vessel sufficiently close to shore that rats aboard the vessel swim to shore. In addition, it is also possible for rats to drift to shore onboard vessel debris. In addition, vessels responding to an oil spill could inadvertently introduce rats to the islands.

B. Response Strategies

1. Primary Response Strategies

Decisions regarding primary response strategies are made by the CCG OSC and the USCG FOSC with input from wildlife resource agency representatives and other appropriate parties.

a. Mechanical Recovery and Chemical Countermeasures

The primary response in protecting birds from an oil spill is 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 allow and authorization is given - using chemical dispersants and/or *in situ* burning. Booms and skimmers and *in situ* burning are typically preferred near concentrations of birds because dispersants, being detergents, reduce the insulating value of bird 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, the potential, negative effects on birds are reduced, although not eliminated.

b. Wildlife Assessment

Assessment of oiled and unoled wildlife can be done concurrently with Shoreline Cleanup & Assessment Team (SCAT) surveys or separately. In either case, it may be most efficient to use the same shoreline segments, or portions of them, delineated for SCAT. Wildlife assessment also may be needed in areas not included in SCAT surveys. Important data to record includes the total number of birds observed by species, the number of live oiled birds that could be/are collected, live oiled birds that could not be collected, and live unoled birds. The relative degree of oiling of the birds also is important to record.

c. Oiled Carcass Recovery

Dead, oiled wildlife need to be removed from the environment as soon as possible to help prevent secondary contamination of scavengers, including raptors. Secondary contamination may occur through (1) ingestion of oily carcasses, and (2) physical contact with oil on carcasses by unoiled feathers, fur, and/or skin. The collection of oiled, dead wildlife needs to be performed in such a manner to protect the integrity of data or evidence that may be obtained and used for law enforcement, scientific, and/or Environmental Damages (Canada)/Natural Resource Damage Assessment (U.S.) purposes. Appropriate Canadian and U.S. wildlife resource agency representatives and their law enforcement branch/division will provide information to the CCG OSC and USCG FOSC, respectively, on entities authorized to conduct oiled carcass recovery. See Appendix 4 for more detailed information on protocols for oiled carcass recovery. Appendices 5 and 6, respectively, contain forms to be used by representatives of entities authorized to collect oiled carcasses in the CANUSLANT area.

d. Disturbance Minimization

During a response to an oil spill, appropriate wildlife resource agency representatives will evaluate the potential for response activities to negatively affect sensitive migratory birds and/or their habitats. For example, low-altitude aircraft and certain shoreline cleanup techniques. Canadian and U.S. wildlife resource agency representatives may recommend to the CCG OSC and the USCG FOSC that response activities in or adjacent to sensitive species or areas in the CANUSLANT area be modified or completed prior to, or following, critical biological periods to help reduce or eliminate wildlife disturbance. If that is not possible, wildlife resource agency representatives may recommend to the CCG OSC and the USCG FOSC that agency on-site monitors accompany near-shore and/or shore-based activities to help eliminate or minimize and monitor disturbance.

Over-flight activities associated with oil spill response have the potential for causing unnecessary and illegal disturbance to migratory bird species. To reduce disturbance and improve the chances for migratory bird survival, appropriate Canadian and U.S. wildlife resource agency representatives will provide the CCG OSC and the USCG FOSC with over-flight advisories to pilots (i.e., flights over nesting Bald Eagles). These advisories may request that operations remain at a certain distance from migratory bird concentration areas, seabird nesting islands, and critical habitats. Wildlife resource agency representatives will request that copies of any advisories be sent by the CCG OSC to Transport Canada, Airspace Restriction, System Safety, Civil Aviation and by the USCG FOSC to the Federal Aviation Administration.

In addition, appropriate Canadian and U.S. wildlife resource agency representatives will provide to the CCG OSC and the USCG FOSC, 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. Wildlife resource agency representatives will request that copies of any advisories be sent by the CCG OSC and the USCG FOSC to all government

agency, agency-contracted, and responsible party-related spill-response personnel. In addition, a news release will be prepared by appropriate Canadian and U.S. wildlife resource agency representatives for distribution by the CCG/USCG Joint Information Center.

If warranted, a request will be made of the appropriate authorities⁴ to temporarily close an area to hunting to avoid displacing unoiled wildlife into oiled areas.

2. Secondary Response Strategies

As stated in Section II, actions taken to keep wildlife away from oiled areas will be coordinated among appropriate Canadian and U.S. wildlife resource agency representatives to ensure activities are not in conflict. All deterrence activities will be overseen or conducted by the appropriate Canadian or U.S. wildlife resource agency representatives in their respective area. Therefore, the *CANUSLANT Wildlife Response Guidelines* only contain information on permit requirements and equipment, materials, and/or personnel that could be shared across borders to conduct these activities.

Appendix 16 of this document addresses issues related to hazing/deterrence of wildlife to prevent additional oiling. Appendices 9A and 9B provide information on Canadian and U.S. wildlife resource agency permits required for keeping unoiled birds away from oiled areas. Appendix 10 identifies equipment and materials currently stockpiled in the CANUSLANT area for deterring unoiled birds, and the contact person to obtain the equipment and materials. Appendix 11 identifies entities with bird deterrence capabilities in the CANUSLANT area.

3. Tertiary Response Strategies

a. Rat Countermeasures

If a vessel operating in rat-free islands experiences an emergency that results or may result in the vessel going aground, CWS and USFWS representatives or their designated representative will seek, with the assistance of the CCG OSC and the USCG FOSC, information from the vessel operator/owner on whether rats are onboard. If the vessel is safe to board, CWS or USFWS representatives or a designated CWS or USFWS 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 on board the vessel, CWS or USFWS representatives or a designated CWS or USFWS on-scene representative will deploy rodent traps and/or poisons on the vessel, if possible, prior to or following the vessel grounding.

In the event it is not possible to conduct onboard rat inspection and prevention activities prior to a vessel going aground, CWS or USFWS representatives will develop a rat prevention plan specific to the incident for approval by the CCG OSC and USCG FOSC. The plan will include,

⁴ As appropriate, Minister, Natural Resources Canada; Commissioner, State of Maine, Department of Inland Fisheries and Wildlife; Refuge Manager(s), U.S. Fish and Wildlife Service.

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. In the event of an oil spill that includes the use of response-related aircraft that may contain rats, CWS and USFWS representatives will provide the CCG OSC and the USCG FOSC with rat prevention information that will in turn be provided to appropriate spill-response-related aircraft operators.

b. Migratory Bird Capture and Treatment

A request to initiate an oiled migratory bird capture and treatment program will occur in one of the following ways:

- A request will be made jointly by CWS, NB-DNR, USFWS and MDIFW representatives to the CCG OSC and the USCG FOSC; or
- A request will be made by a responsible party and submitted to CWS and USFWS representatives for their consideration and potential submittal to the CCG OSC and the USCG FOSC.

The factors included in Appendix 12 will be used by CWS, NB-DNR, USFWS and MDIFW representatives as the basis for deciding whether to request approval from the CCG OSC and USCG FOSC to initiate an oiled migratory bird capture and treatment program. Any request to the CCG OSC and the USCG FOSC to conduct a capture and treatment program for oiled migratory birds must be made via the checklist in Appendix 13.

These *CANUSLANT Wildlife Response Guidelines* assume that, if an oiled migratory bird capture and treatment program is approved by the CCG OSC and the USCG FOSC:

- As practicable, the program will be initiated jointly by CWS, NB-DNR, USFWS and MDIFW representatives. In the State of Maine, USFWS has MDIFW call the State's oiled wildlife rehabilitation contractor when RP has requested it or is not doing an appropriate job. Contractors will need to maintain permitting in US/State of Maine and Canada/New Brunswick and/ or Nova Scotia.
- CWS, NB-DNR, USFWS and MDIFW will provide agency representatives to oversee and monitor joint capture and treatment operations.
- Personnel should have appropriate level of OSHA (U.S.) or Canada Labour Code Part II training/certification because the oil on the wildlife is a hazardous substance. Appropriate training is essential if personnel will be entering the spill site to pick up animals. See also Appendix J Joint Marine Pollution Contingency Plan Atlantic Geographic Annex (CANUSLANT).
- As practicable, oiled-bird-treatment facility(ies) will be located in the area closest to the spill

with the required facility infrastructure

- Decisions regarding euthanizing birds will be based on standard agency practices and policies being implemented within respective countries.
- CWS, NB-DNR, USFWS and MDIFW representatives will coordinate on the release plans being developed for rehabilitated birds

The establishment of joint Canada/U.S. oiled-bird-treatment facility(ies) is not anticipated.

Appendices 9A and 9B provide information on Canadian and U.S. wildlife resource agency permits required for collecting, transporting (including importing and exporting), and treating oiled birds.

Appendix 10 identifies equipment and materials currently stockpiled in the CANUSLANT area for capturing and stabilizing oiled birds and the contact person.

Potential facilities (and contact information) in the CANUSLANT area that could be used for stabilization and/or treatment of oiled birds are listed in Appendix 14. NB-DNR licenses existing wildlife rehabilitation facilities in the province. Typically, there are 3 licensed operators in a given year, one of which is trained to handle oiled birds. In the event a migratory bird capture program is initiated, the availability of these facilities must be verified at that time.

V. MARINE MAMMALS AND TURTLES

A. General Considerations

1. Population and Distribution

The waters off North America's east coast are home to a wide variety of marine life, including marine mammals and turtles. Resident populations of pinnipeds (seals) and cetaceans (whales, dolphins and porpoises) inhabit both the coastal and offshore waters in the CANUSLANT area. The Bay of Fundy's nutrient rich waters bring in phytoplankton, krill and many fish species that are prey items for many marine mammals and turtles. More than 20 species of marine mammals and 4 species of marine turtles are known to spend at least part of the year in the Gulf of Maine. The marine mammals can be grouped into general categories to facilitate review: large cetaceans, small cetaceans, and seals. Within each group, the overall patterns of population trends and habitat use are similar, with a few differences among species.

Large cetaceans. In the Gulf of Maine, this group is dominated by the Mysticeti, baleen whales, and includes North Atlantic right whale (*Eubalaena glacialis*), humpback whale (*Megaptera novaeangliae*), fin whale (*Balaenoptera physalus*), Sei whale (*Balaenoptera borealis*) and minke whale (*Balaenoptera acutorostrata*). Blue whales (*Balaenoptera musculus*), and some of the

large Odontoceti (toothed whales) such as sperm whales (*Physeter macrocephalus*) and the beaked whales (e.g. northern bottlenose whale, *Hyperoodon ampullatus*; Cuvier's beaked whale, *Ziphius cavirostris*) are sighted only rarely. The baleen whales are known to occupy Canadian waters in the Gulf of Maine, Bay of Fundy and southwestern Scotian Shelf mainly during the summer and autumn months, but most species sighted sporadically year-round.

Small cetaceans. This group includes the dolphins and related species. In Canadian waters of the Gulf of Maine the main species sighted (in descending order) are harbour porpoise (*Phocoena phocoena*), white-sided dolphin (*Lagenorhynchus acutus*), two species of pilot whales (long-finned, *Globicephala melas*; short-finned, *Globicephala macrorhynchus*), and the common dolphin (*Delphinus delphinus*). Two other dolphin species, Atlantic bottlenose dolphin (*Tursiops truncatus*) and white-beaked dolphin (*Lagenorhynchus albirostris*) are seen occasionally. Risso's dolphin (*Grampus griseus*), and killer whale (*Orcinus orca*) are rarely sighted. Overall there is little or no information on abundance trends. All abundance estimates for the Gulf of Maine area have been derived from surveys undertaken by the US National Marine Fisheries Service, and have not centred on Canadian waters.

Seals. Depending on the time of year, seals can be spotted swimming or hauled out off the coast of Canada's Atlantic Provinces and into the northeastern United States. Seals take advantage of the rich resources of the sea while maintaining close ties with the land. It is here that seals rest, moult, give birth and nurse their young. There are 33 species of pinnipeds (fur seals, sea lions, true seals and the walrus) worldwide (a 34th species, the Caribbean monk seal, is now considered extinct). Of these, 18 are "true" seals, six of which are found along the east coast of North America and can be found in the CANUSLANT area: grey seal, harbor seal, harp seal, hooded seal, ringed seal and bearded seal.

Marine Turtles. Four species of sea turtles, loggerhead, leatherback, Kemp's Ridley, and green sea turtles can be found in the Gulf of Maine. Leatherbacks and loggerhead sea turtles are frequently encountered in the Gulf of Maine, and are common enough to be observed in most years. Juvenile Kemp's Ridley turtles are often found in the waters off New England.

2. Potential Oil Spill Impacts

In comparison to marine birds, marine mammals are infrequently affected by oil spill incidents. The number of individuals and species affected, as well as the degree of pathological impact of such exposure, will depend on many variables, such as the location and size of the spill, the characteristics of the oil, weather and water conditions, types of habitats affected, the time of year the spill occurs, as well as the behavior and physiology of the marine mammal. Information on the effects of oil on marine mammals is sparse, and is mostly a result of the *Exxon Valdez* oil spill in Alaska in 1989 and a limited number of exposure experiments on a narrow range of species exposed to relatively low doses of oil (Geraci and St. Aubin, 1990). The sensitivity of marine mammals to spilled oil is highly variable and appears to be most directly related to the relative importance of fur and blubber to thermoregulation. In those species with relatively sparse fat stores, direct contact with oil impairs the thermal insulative value of fur thus resulting

in hypothermia. External exposure can also result in dermal injury and conjunctivitis. Internal exposure of oil by ingestion (either by direct ingestion or indirect through food and water sources) can result in gastrointestinal ulcers and liver and kidney damage. Inhalation of volatile hydrocarbons can result in central nervous system and pulmonary damage and behavioral abnormalities. Depending upon the extent of external exposure, the toxicity of the petroleum product, the volume ingested or inhaled, the presenting clinical signs, and the species affected, some marine mammals exposed to oil may not need rehabilitation. Oil spill responders must consider that such procedures involving capturing, holding, treating, and releasing the wild animals places stress on the animal, and the consequences of capture and captivity may be a greater risk to its well being than contacting oil. Exceptions may include abandoned or moribund young pups of any species and species that rely on fur for thermal insulation. These animals will most likely require rehabilitation when oiled due to the physical and toxicological effects of petroleum exposure.

As with marine mammals, marine turtles are infrequently affected by oil spill incidents. Although surprisingly robust when faced with physical damage (shark attacks, boat strikes), sea turtles are highly sensitive to chemicals such as oil. "Sea turtles at all life stages appear to be highly sensitive to oil spills, perhaps due to certain aspects of their biology and behavior, including a lack of avoidance behavior, indiscriminate feeding in convergence zones, and large pre-dive inhalations (Milton /et al/. 2003). Milton /et al/. (2003) state that the oil effects on turtles include direct mortality due to oiling in juveniles and adults, and impacts to the skin, blood, salt glands, and digestive and immune systems. All loggerhead life history stages are vulnerable to the harmful effects of oil through direct contact, degradation of food resources, and loss of habitat (Vargo /et al/. 1986, Minerals Management Service 2000). Vargo /et al/. (1986) reported that sea turtles would be at substantial risk if they encountered an oil spill or large amounts of tar in the environment. In a review of available information on debris ingestion, Balazs (1985) reported that tar balls were the second most prevalent type of debris ingested by sea turtles. Physiological experiments showed that sea turtles exposed to petroleum products may suffer inflammatory dermatitis, ventilatory disturbance, salt gland dysfunction or failure, red blood cell disturbances, immune response, and digestive disorders (Vargo /et al/. 1986, Lutz and Lutcavage 1989, Lutcavage /et al/. 1995)."

Pathological Effects of Petroleum Exposure. Documented clinical and histopathological effects of oil in pinnipeds include ambulatory restrictions, thermoregulatory imbalance, central nervous system depression, interstitial pulmonary emphysema, aspiration pneumonia, anemia, conjunctivitis and corneal edema, gastrointestinal irritation, and hepatic and renal tubular necrosis/lipiosis, and adrenal gland dysfunction (Davis and Anderson, 1976; Geraci and Smith, 1976; Engelhardt et al., 1977; Engelhardt, 1985; Geraci and St. Aubin, 1988; Geraci and Williams, 1990; St. Aubin, 1990; Lipscomb et al., 1993). Small laboratory studies on the effects of oil have been conducted on ringed and harp seals (Smith and Geraci, 1975; Geraci and Smith, 1976); however most studies have been unable to correlate the degree of oiling with the type of effect and many of these lesions may be related to captivity stress or other underlying factors. Changes in acute phase proteins and cytokines (e.g. elevated IL-6, haptoglobin and creatine kinase) have been correlated with probable petroleum exposure in river otters (Duffy et al., 1993;

Duffy et al., 1994). Heavy oiling did not appear to interfere with seal locomotion during the *Exxon Valdez* oil spill (Lowry et al., 1994), but in previous spills seal pups encased in oil have drowned due to their inability to swim (Davis and Anderson, 1976). During *Exxon Valdez*, harbor seals were observed exhibiting abnormally tame or lethargic behavior. These observations are most likely explained by midbrain nerve damage found in oiled harbor seals and Steller sea lions (Spraker et al., 1994). In addition to the acute mortalities associated with the loss of thermoregulation and buoyancy, many physiological and behavioral problems have been attributed to internal exposure to petroleum and polycyclic aromatic hydrocarbon (PAH) compounds in sea otters. However, many of these conditions have been difficult to differentiate from lesions attributed to, or compounded by, shock and chronic stress associated with capture and the rehabilitation process (Williams and Davis, 1995). It has become clear that animals captured during oil spill responses undergo additional stressors that may or may not be offset by the medical care they receive.

The clinical and histopathological effects of oil on cetaceans aren't as well documented as that of seals, but it can be assumed that the effect of ingestion would be similar. As they don't rely on fur for thermoregulation, a thermoregulatory imbalance would not be expected in oiled cetaceans.

Not much is known about the toxicity of oil to marine turtles however the effects can include direct mortality due to oiling in adults, as well as negative impacts to the skin, blood, digestive and immune systems, and salt glands.

B. Response Strategies

1. Primary Response Strategies

The primary response strategy to protect marine mammals from an oil spill is to prevent oil from reaching marine mammal concentration areas. These sensitive areas include haulouts, pupping, and feeding areas. Because marine mammals react differently to disturbance, response actions need to be implemented to prevent driving marine mammals into oiled areas.

Primary response actions, such as skimming and booming, are recommended to prevent oil from reaching marine mammal concentration areas. Where environmental considerations permit and authorization is given, the use of chemical dispersants and/or *in situ* burning may also be an option. However, the use of booms, skimmers and *in situ* burning is typically preferred near concentrations of marine mammals, because dispersants may cause mortality to some species. In addition, there may also be a potential for other sub-lethal effects, such as severe eye irritation including corneal burns. Therefore, spraying dispersants directly into areas with marine mammals should be avoided. After dispersants have mixed with water, the potential negative effects on marine mammals should be reduced.

2. Secondary Response Strategies

The purpose of secondary response strategies is to keep marine mammals and turtles away from

oiled areas. For marine mammals, one option would be the use of sonic devices (typically referred to as ‘acoustic harassment devices’) to discourage the presence of marine mammals around an oiled area. Acoustic harassment devices do work on seal species for limited periods of time (habituation can occur within a few weeks). Preemptive capture of marine mammals or turtles that are in the path of an oil spill is also an option that will be considered. However, because shock and stress can result from an animal being pursued, captured, and relocated, there must be a high potential for marine mammals or turtle to be oiled before this technique is initiated. In addition, marine mammal handling, if performed improperly, may pose a danger to the individuals handling the animal.

A request to use acoustic harassment devices for marine mammals, or initiate a pre-emptive capture program for unoiled marine mammals or turtles in the CANUSLANT area will occur in one of the following ways:

- A request will be made jointly by DFO and NMFS representatives to the CCG OSC and the USCG FOSC; or
- A request will be made by a responsible party and submitted to DFO and NMFS representatives for their consideration and potential submittal to the CCG OSC and the USCG FOSC.

The factors included in Appendix 12 will be used by DFO and NMFS representatives as the basis for deciding whether to request approval from the CCG OSC and USCG FOSC to initiate a pre-emptive capture program for unoiled marine mammals or turtles in the CANUSLANT area. Any request to the CCG OSC and the USCG FOSC to conduct a pre-emptive capture program for un-oiled marine mammals or turtles must be made via the checklist in Appendix 13.

These *CANUSLANT Wildlife Response Guidelines* assume that, if the use of acoustic harassment devices or a pre-emptive unoiled marine mammal or turtle capture program is approved by the CCG OSC and the USCG FOSC:

- All aspects of the program will be conducted under the direction of NMFS on the U.S. side of the border and by DFO on the Canadian side of the border. Representatives of DFO and NMFS will coordinate their responses.
- Elements of the program may be performed by a contractor agreeable to both NMFS and DFO representatives.
- Decisions regarding euthanizing any captured marine mammals or turtles will be based on a written plan approved by NMFS in coordination with DFO representatives.
- The marine mammal or turtle release plan will be developed by NMFS in coordination with DFO representatives.

Appendices 9A and 9B provide information on Canadian and U.S. wildlife resource agency

permits required for collecting, transporting (including importing and exporting), hazing, and holding marine mammals and turtles. In the U.S., three organizations/agencies in Maine are authorized to respond, rehabilitate or deter marine mammals during an oil spill response. Appendix 16 provides contact information for all organizations authorized to respond to marine mammal and turtle strandings and oil spill events in the Northeastern United States.

Potential facilities (and contact information) in the CANUSLANT area that could be used for stabilization and/or treatment of oiled marine mammals are listed in Appendix 14. In the event a marine mammal capture program is initiated, the availability of these facilities must be verified at that time.

3. Tertiary Response Strategies

Capturing and treating oiled marine mammals has limited success, with high mortality occurring for a variety of reasons. Some guidance for handling sea turtles during spills does exist. At-sea handling protocols provide a consistent and standardized framework for dealing with sea turtles. Protocols that would be carried out under the auspices of trained wildlife veterinarians and resource managers, which are more narrowly focused on treatment and monitoring of oiled sea turtles in a rehabilitation center, also exist. A tertiary response program will be considered if marine mammals or turtles are oiled in the CANUSLANT area.

A request to initiate an oiled marine mammal or turtle capture and treatment program in the CANUSLANT area will occur in one of the following ways:

- A request will be made jointly by DFO and NMFS representatives to the CCG OSC and the USCG FOSC; or
- A request will be made by a responsible party and submitted to DFO and NMFS representatives for their consideration and potential submittal to the CCG OSC and the USCG FOSC.

The factors included in Appendix 12 will be used by DFO and NMFS representatives as the basis for deciding whether to request approval from the CCG OSC and USCG FOSC to initiate an oiled marine mammal or turtle capture and treatment program in the CANUSLANT area that includes marine mammals or turtles on the Canadian side of the border. Any request to the CCG OSC and the USCG FOSC to conduct an oiled marine mammal or turtle capture and treatment program must be made via the checklist in Appendix 13.

If an oiled marine mammal or turtle capture and treatment program is approved by the CCG OSC and the USCG FOSC:

- All aspects of the program will be conducted under the direction of NMFS on the U.S. side of the border and by DFO on the Canadian side of the border. Representatives of DFO and NMFS will coordinate their responses.

- Elements of the program may be performed by a contractor agreeable to both NMFS and DFO representatives.
- Decisions regarding euthanizing any captured marine mammals or turtles will be based on a written plan approved by NMFS and DFO representatives.
- The marine mammal or turtle release plan will be developed by NMFS and DFO representatives.
- Personnel should have appropriate level of OSHA (U.S.) or Canada Labour Code Part II training/certification because the oil on the wildlife is a hazardous substance. Appropriate training is essential if personnel will be entering the spill site to pick up animals. See also Appendix J Joint Marine Pollution Contingency Plan Atlantic Geographic Annex (CANUSLANT).

Appendices 9A and 9B provide information on Canadian and U.S. wildlife resource agency permits required for collecting, transporting (including importing and exporting), and holding marine mammals and turtles.

APPENDIX 1

SELECTED SPECIES AND WILDLIFE RESOURCE AGENCY MANAGEMENT RESPONSIBILITY

ENTITY	MANAGEMENT RESPONSIBILITY
<p>CANADA</p> <p>New Brunswick Department of Natural Resources</p> <p>Fisheries and Oceans Canada</p> <p>Environment Canada</p> <p style="padding-left: 40px;">< Canadian Wildlife Service</p>	<p>Terrestrial mammals, migratory, and non-migratory birds*</p> <p>Sea turtles, pinnipeds, cetaceans</p> <p>Migratory birds (as defined in the Migratory Birds Convention Act)</p>
<p>UNITED STATES</p> <p>State of Maine</p> <p style="padding-left: 40px;">< Maine Department of Inland Fisheries and Wildlife</p> <p style="padding-left: 40px;">< Maine Department of Marine Resources</p> <p>U.S. Department of the Interior</p> <p style="padding-left: 40px;">< Fish and Wildlife Service</p> <p>U.S. Department of Commerce</p> <p style="padding-left: 40px;">< National Marine Fisheries Service</p>	<p>Migratory and non-migratory birds, terrestrial mammals, freshwater fish</p> <p>Shellfish, marine and anadromous finfish, sea turtles, pinnipeds, cetaceans</p> <p>Migratory birds (as defined in the Migratory Bird Treaty Act)</p> <p>Pinnipeds, cetaceans and sea turtles</p>

*Birds under New Brunswick Department of Natural Resources jurisdiction as defined by the Fish and Wildlife Act include: eagles, grouse, quail, pheasants, hawks, owls, cormorants, vultures, pelicans, crows, jays, blackbirds, kingfishers, and falcons.

APPENDIX 2
CANUSLANT WILDLIFE RESOURCE AGENCY CONTACTS

CANADA	EMERGENCY CONTACT	CONTACT INFORMATION
Fisheries and Oceans Canada	1. Andrew Newbould	Office: 902-426-9769 Cell: 902-802-5260 Fax: 902-426-9683 Email: Andrew.Newbould@dfo-mpo.gc.ca
	2. Kent Smedbol	Office: 902-426-3537 Fax: 506-529-5862 Email: Kent.Smedbol@dfo-mpo.gc.ca
Canadian Wildlife Service	1. Keith McAloney	Office: 506-364-5013 Cell: 506-364-5044 Fax: 506-364-5062 Email: Keith.Mcaloney@ec.gc.ca
	2. Bruce Pollard	Office: 506-364-5041 Fax: 506-364-5062 Email: bruce.pollard@ec.gc.ca
New Brunswick Department of Natural Resources	1. Director, Fish and Wildlife Branch	Office: 506-453-2440 Fax: 506-453-6699
	2. Kevin Connor	Office: 506-453-2440 Cell: 506-476-1082 Fax: 506-453-6699 Email: kevin.connor@gnb.ca

APPENDIX 2, CONT.

UNITED STATES	EMERGENCY CONTACT	CONTACT INFORMATION
U.S. Department of the Interior Office of the Secretary, Office of Environmental Policy and Compliance	1. Andrew Raddant	Office: 617-223-8565 Cell: 617-592-5444 Fax: 617-223-8569 Email: andrew_raddant@ios.doi.gov
	2. Michael Chezik	Office: 215-5917-5378 Cell: 215-266-5155 Fax: 215-597-9845 Email: michael_chezik@ios.doi.gov
U.S. Fish and Wildlife Service	1. Tim Fannin	Office: 413-253-8646 Cell: 413-539-3194 Fax: 413-253-8482 Email: Tim_Fannin@fws.gov
	2. William Kolodnicki	Office: 207-454-7161 x110 Cell: Fax: 207-454-2550 Email: William_Kolodnicki@fws.gov
U.S. Department of Commerce, National Marine Fisheries Service	1. Mendy Garron, NER Stranding Program	24 hour Stranding Hotline: 978-281-9351 Office: 978-282-8478 Cell: 978-559-1781: Email: mendy.garron@noaa.gov
Maine Department of Inland Fisheries and Wildlife	1. Donald Katnik	Office: 207-941-4455 Cell: 207-356-5138 Fax: 207-941-4450 Email: donald.katnik@maine.gov

2.	Office: Cell: Fax: Email:
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APPENDIX 3

MIGRATORY BIRD SUSCEPTIBILITY TO OILING: SELECTED SPECIES IN THE CANUSLANT AREA

MIGRATORY BIRD SPECIES	SUSCEPTIBILITY TO OILING
Alcids (e.g., murre, puffin, <i>guillemot</i>)	High
Sea ducks	High
Other waterfowl	High
Loons	High
Cormorants	High
Gulls, Kittiwakes, Terns	Medium
Pelagic birds (e.g., <i>shearwaters</i> , <i>gannets</i> , <i>storm-petrels</i>)	Medium
Purple Sandpiper	Medium
Raptors (e.g., bald eagle, osprey)	Low
Plovers, sandpipers	Low
Song birds	Low

APPENDIX 4

OILED CARCASS RECOVERY

Equipment and Materials Requirements:

- Aluminum foil or paper bags (for wrapping individual carcasses)
- Large plastic bags or cardboard box (to hold birds)
- Small plastic bags that self-seal (for identification tags, labels, or data sheets)
- Identification tags, labels, and/or data sheets
- Water-proof writing implements
- Water-proof notebook for documentation of search
- Data sheet and tag for collected oiled carcass
- Personal protective equipment (e.g., rubber gloves, rubber boots or other protective footwear, coveralls)
- Coolers for shipping samples to be analyzed
- Tape (to secure coolers)

Collection Site Requirements*:

- Good ventilation and lighting. Must have adequate protection from weather elements.
- Freezer space to store carcasses required for evidence and analysis. Size and space required will vary with each incident. Freezer space should be locked to maintain chain-of-custody.

Personnel Requirements:

- Trained personnel, as necessary, to survey beach shorelines for oil wildlife carcasses.

*This area serves as the collection point for carcasses and for carcass documentation, necropsy, and temporary storage.

APPENDIX 4, CONT.

Search and Recovery Procedures:

- Identify beach segments by landmark and type for consistent search repeatability.
- Walk entire length of all (may be oiled or unoiled) as designated for incident.
- While conducting shoreline search, if possible, document all live birds and other wildlife observed in the vicinity and whether birds and/or other wildlife appear oiled.
- Collect and tag carcasses. Identification tags and pre-printed data sheets should be filled out at time of collection. Tags must include: incident name, species name (if known), date, time, location (GPS coordinates and/or Shoreline Cleanup Segment), and name of collector. If tags are not available be certain this information is written directly onto the box or bag in which the bird is collected.
 - ▶ For U.S. Law enforcement, each bird of every species: wrap carcass in foil or place in a paper bag before wrapping carcass in plastic bag; tag carcass. Carcasses can also be place in a cardboard box. Take all stored carcasses to wildlife resource agency representative at collection site and complete chain-of-custody form.
 - ▶ For Canada Law enforcement each bird of the first 12 birds of every species should be collected following the procedures above. All recovered bird carcasses in excess of the first 12 of every species: place in plastic bag and attach tag. Turn over all bagged carcasses to wildlife resource agency representative at collection site and complete chain-of-custody form.
 - ▶ For carcasses that are too large to bag: tag carcass and provide duplicate tag information to wildlife resource agency personnel at collection site.
- Appropriate wildlife resource agency representatives will receive all carcasses and accompanying documents at the collection site. In addition, they will ensure that chain-of-custody forms are completed at the collection point. Carcasses collected for evidence and analysis will be kept frozen and shipped in coolers to designated lab(s) or to storage areas as determined at the time of the incident. Specimens may also be saved for research as determined at the time of each incident.

Carcass Disposal:

- A carcass disposal plan will be prepared by appropriate wildlife resource agency representatives for the oil spill incident. The plan will identify any necessary permits.

APPENDIX 5 - DATA SHEET FOR COLLECTED OILED CARCASSES AND WILDLIFE ASSESMENT

WILDLIFE ASSESSMENT AND COLLECTION FORM

Task Force ID: _____ Incident: _____ Date: _____ Time Start: _____ Time End: _____

Survey location: _____ Observers: _____

Weather: wind _____ precipitation _____ temperature _____ % cloud cover: _____

GPS unit ID: _____ Start waypoint #: _____ End waypoint #: _____ Survey type: Air, Land, Water

Species Code	Number Observed	Time (0-2400)	Live/Dead	Collected? (Y/N)	Waypoint No. (# # #)	Field Photo (#'s)	Degree of Oiling*	Log No. **	Comments (including location coordinates)

**Degree of Oiling: L=Light, M=Moderate, H=Heavy, VH=Very Heavy, N=no oil observed

***Log No.=unique ID or tag # assigned to animal at intake (for tracking individual through rehabilitation) or evidence number assigned to carcass by USFWS.

APPENDIX 6

OILED WILDLIFE COLLECTION TAGS

[NOTE: This appendix includes two separate pages for the front and back of tag beginning on the next page]

1 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

2 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

3 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

4 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

5 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

6 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

7 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

8 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

9 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

10 Incident: _____
Collected By: _____
(Print Name, Agency)
Date/Time: _____
Species: _____
Location (GPS):

APPENDIX 7

CHAIN-OF-CUSTODY RECORD AND EVIDENCE STORAGE LOG

[NOTE: This appendix includes two separate forms beginning on the next page]

CHAIN-OF-CUSTODY RECORD				FILE NO.
DATE AND TIME OF SEIZURE:		REGION:	EVIDENCE/PROPERTY SEIZED BY:	
SOURCE OF EVIDENCE/PROPERTY: (person and/or location) <input type="checkbox"/> Taken from: <input type="checkbox"/> Received from: <input type="checkbox"/> Found at:			CASE TITLE AND REMARKS:	
ITEM NO.	DESCRIPTION OF EVIDENCE/PROPERTY: (Include Seizure Tag Numbers and any serial numbers)			
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: <input type="checkbox"/> MAIL <input type="checkbox"/> IN PERSON <input type="checkbox"/> OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: <input type="checkbox"/> MAIL <input type="checkbox"/> IN PERSON <input type="checkbox"/> OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: <input type="checkbox"/> MAIL <input type="checkbox"/> IN PERSON <input type="checkbox"/> OTHER

CHAIN-OF-CUSTODY RECORD, Continued				FILE NO. INV.
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	
ITEM NO.	FROM: (Print name and agency)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: 9 MAIL 9 IN PERSON 9 OTHER
	TO: (Print name and agency)	RECEIPT SIGNATURE:	RECEIPT DATE:	

REGION:		EVIDENCE STORAGE LOG FACILITY LOCATION:				LOG PAGE:
LOG ENTRY NO.	IN or OUT	DATE AND TIME OF TRANSFER	BRIEF DESCRIPTION OF EVIDENCE (Include Seizure Tag Numbers)	RECEIVED FROM/ RELEASED TO (Print Name)	PREVIOUS LOG ENTRY NO. REFERENCE	COMMENTS: REASONS FOR REMOVAL:
INV.		SUBJECT		EVIDENCE CUSTODIAN (Signature)		
	IN or OUT			FROM/TO:		
	IN or OUT			FROM/TO:		
	IN or OUT			FROM/TO:		
	IN or OUT			FROM/TO:		
	IN or OUT			FROM/TO:		
	IN or OUT			FROM/TO:		

EVIDENCE STORAGE LOG

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APPENDIX 8

DETERRENCE PROGRAM CONSIDERATIONS

(taken from: Best Practices for Migratory Bird Care during an Oil Spill, USFWS 2003)

Note: No attempt should be made to disperse oiled birds.

- < Worker Safety.
- < Local Habitats and Species
- < Some species, especially those found associated with a human environment are difficult to deter, especially if chosen deterrents mimic sounds or visual elements associated with that environment.
- < Consider the potential effects of human activity and disturbance on sensitive habitats and species.
- < Molting birds are not easily dispersed, and require a combination of different techniques.
- < Availability of “clean” habitat within a reasonable distance.
- < Avoid dispersing birds into areas that might become contaminated; be aware of oil trajectory predictions
- < Determine if “clean” habitat can be made more attractive (e.g., temporarily limiting access to people, boats or certain activities).
- < Appropriate technique.
- < Deterrence will be most effective if the entire area of concern can be hazed as continuously as possible. As a general rule, do not start a deterrence operation that cannot be maintained for the required duration.
- < Automatically operated devices, which require checking only once a day or less, may be used when staffing is limited, during bad weather, or at night.
- < In general, expose the area to a variety of devices and techniques, with random variations to control habitations. Be prepared to back off as events dictate.
- < In general, most deterrence activities would probably not be effective for areas larger than seven to 10 miles in length or diameter.

APPENDIX 8, CONT.

- < Highly mobile devices (e.g. sound-emitting buoys) that can influence large radiuses are necessary for larger spills on water
- < Some types of oil, like fuel oil, are highly flammable during the first hours following a spill, due to the presence of high concentrations of volatile oil fractions. Techniques with potential to induce sparks are to be avoided in these situations.
- < Potential side effects.
- < The effects of sound-emitting devices on humans will be acceptable to local residents.

APPENDIX 9A

GENERAL PERMIT INFORMATION FOR SELECTED RESPONSE-RELATED ACTIVITIES: MIGRATORY BIRDS AND MARINE MAMMALS

ACTION	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE	U.S.FISH AND WILDLIFE SERVICE	ENVIRONMENT CANADA CANADIAN WILDLIFE SERVICE	FISHERIES AND OCEANS CANADA	NEW BRUNSWICK DEPARTMENT OF NATURAL RESOURCES
	Marine Mammals	Migratory Birds ¹	Migratory Birds ¹	Migratory Birds ^{1,7,8}	Marine Mammals and Turtles	Non-Migratory Birds ⁷
Collect, Transport, and Hold	Yes ⁹	Yes ²	Yes ⁴	Yes ⁴	Yes ^{8,11}	Yes
Haze	Yes ⁹	Yes ³	No ⁵	Yes ^{3,6}	Yes ^{8,11}	No
Import and Export	Yes ⁹	Yes	Yes	Yes	Yes ¹⁰	Yes

¹ There is currently no provision in place that allows the import of live eagles into the United States or the export of live eagles out of the United States.

² An MDIFW permit is needed to collect, hold, or haze any species on the State endangered species list. In 2006, the list included Arctic, Black, Least and Roseate Tern, Bald and Golden Eagle, Piping Plover, Atlantic Puffin, Razorbill, Harlequin Duck, and breeding Peregrine Falcon. The Great Cormorant is currently in review to be added as a State threatened species.

³ Passive hazing (e.g., balloons, scarecrows, mylar tape) does not require a permit.

⁴ Includes salvage of oiled wildlife carcasses.

⁵ A USFWS permit is needed to haze species managed by USFWS including those listed on the Federal endangered species list.

⁶ An EC CWS permit is only required for hazing with a firearm or aircraft.

⁷ Birds under NB DNR jurisdiction, as defined by the Fish and Wildlife Act, include: eagles, grouse, quail, pheasants, hawks, owls, cormorants, vultures, pelicans, crows, jays, blackbirds, kingfishers, and falcons.

⁸ Under the Species at Risk Act (SARA) permits are required to collect, transport, hold or harass (haze) listed species. Contact EC CWS and DFO for requirements when dealing with species listed under SARA.

⁹ Permit is required to handle/harass any marine mammals, currently in the CANUSLANT area. Only 3 agencies (College of the Atlantic: Atlantic Whale, Maine Department of Marine Resources and University of New England) have the authority to haze, move, hold or import/export any marine mammal.

¹⁰ Many marine mammals are listed under CITES, and therefore permits may be required.

¹¹ Hazing, transport, collection and holding of non-SARA listed marine mammals and turtles require a permit under Section 52 of the *Fishery (General) Regulations*

APPENDIX 9B

SPECIFIC PERMIT INFORMATION FOR SELECTED RESPONSE-RELATED ACTIVITIES: MIGRATORY BIRDS

ACTION	PERMIT NAME	AUTHORIZING LAW OR REGULATION	ENTITY ISSUING PERMIT AND LOCATION
Hazing Migratory Birds	Scientific Collection Permit ¹	12 MRSA part12 Chpt. 925 subchpt. 1, §12704	MDIFW, Bangor, ME ²
	Hazing Permit ³	Endangered Species Act	USFWS, Hadley, MA
	Hazing Permit ⁴	Bald Eagle Protection Act	USFWS, Hadley, MA
	Special Scare Permit	Migratory Birds Convention Act	CWS, Sackville, N.B.
Capturing, Transporting, and Cleaning Migratory Birds	Migratory Bird Permit	Migratory Bird Treaty Act	USFWS, Hadley, MA
	Scientific Collection Permit ¹	12 MRSA part12 Chpt 925 subchpt 1, §12704	MDIFW, Bangor, ME
	Rehabilitation Permit	12 MRSA part 12 Chpt 915 subchpt 15, §12152	MDIFW, Augusta, ME ⁴
	Migratory Bird Capture Permit	Migratory Birds Convention Act	CWS, Sackville, N.B.
	Possession/Collection of N.B. or Regionally Endangered Species	New Brunswick Endangered Species Act	N.B. DNR-Fish and Wildlife Branch ⁵ , Fredericton, N.B.

¹ Required to collect, hold or haze any species included on the State endangered species list.

² MDIFW Bangor permit contact: Brenda Lord (207) 941-4463

³ Required only for migratory bird species included on the Federal endangered species list and for bald eagles.

⁴ MDIFW Augusta permit contact person: Vasco Carter: (207) 287-5497

⁵ Contact: Director, Fish and Wildlife Branch: (506) 453-2440, fax (506) 453-6699

APPENDIX 9B, CONT.

ACTION	PERMIT NAME	AUTHORIZING LAW OR REGULATION	ENTITY ISSUING PERMIT AND LOCATION
Importing/Exporting Migratory Birds	Import/Export Permit ^{6,7}	Migratory Bird Treaty Act	USFWS, Hadley, MA
	Import/Export Permit ⁷	CITES ⁸	USFWS, OMA, Washington, D.C. CWS CITES Admin., Hull, QE N.B. DNR-F&W ⁶ , Fredericton, N.B.
	Import Permit	12 MRSA part12 Chpt 915 subchpt 15, §12155	MDIFW, Augusta, ME ⁴
	Capture, Obtain, Export, Release, Take, Kill N.B. Wildlife	Fish and Wildlife Act, Section 90 (1) (a)-(d)	NB DNR-Fish and Wildlife Branch ⁵ , Fredericton, N.B.
	Declaration for Importation or Exportation of Fish or Wildlife (USFWS Form 3-177) ⁹	50 CFR 14.61-14.64	USFWS, Special Agent in Charge, Office of Law Enforcement, Hadley, MA (413) 253-8274

⁴ MDIFW Augusta permit contact person: Vasco Carter: (207) 287-5497

⁵ Contact: Director, Fish and Wildlife Branch: (506) 453-2440, fax (506) 453-6699

⁶ Currently, there are no provisions that allow for the import of live eagles into the United States or the export of live eagles out of the United States.

⁷ Necessary for CITES Appendix 2 and Appendix 3 Species. The exporting country issues the permit to receiving country.

⁸ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

⁹ To print a copy of this form, go to www.FWS.GOV/LE/ImpExp/faqs.htm

APPENDIX 9C

SPECIFIC PERMIT INFORMATION FOR SELECTED RESPONSE-RELATED ACTIVITIES: MARINE MAMMALS AND TURTLES IN CANADIAN WATERS

ACTION	PERMIT NAME	AUTHORIZING LAW OR REGULATION	ENTITY ISSUING PERMIT AND LOCATION
Hazing SARA-listed Marine Mammals and Turtles	SARA Section 73 Permit	Species at Risk Act	DFO Licencing, Dartmouth, NS
Capturing, Transporting, and Cleaning SARA-listed Marine Mammals and Turtles	SARA Section 73 Permit	Species at Risk Act	DFO Licencing, Dartmouth, NS
Hazing, Capturing, Transporting and Cleaning all other Non-SARA Marine Mammals and Turtles	Section 52 Permit	Fishery (General) Regulations	DFO Licencing, Dartmouth, NS
Foreign Vessels Operating in Canadian Waters	Foreign Vessel Licence	Coastal Fishery Protection Regulations	DFO Licencing, Dartmouth, NS
Transporting Marine Mammals and Turtles Internationally	Import / Export Permit	CITES	DFO, Resource Management, Dartmouth, NS

APPENDIX 9D

SPECIFIC PERMIT INFORMATION FOR SELECTED RESPONSE-RELATED ACTIVITIES: MARINE MAMMALS AND TURTLES IN UNITED STATES WATERS

ACTION	PERMIT NAME	AUTHORIZING LAW OR REGULATION	ENTITY ISSUING PERMIT AND LOCATION
Hazing, Capturing, Transporting and Cleaning Marine Mammals	112(c) Authorization	Marine Mammal Protection Act	NOAA National Marine Fisheries Service, Gloucester MA
	109(h) Authorization		
	Scientific Research Permit		
Hazing, Capturing, Transporting, and Cleaning Turtles	Endangered Species Permit TE-697823	Endangered Species Act	United States Fish and Wildlife Service, Hadley MA
Transporting Marine Mammals and Turtles Internationally	Import / Export Permit	CITES	NOAA National Marine Fisheries Service, Silver Spring MD United States Fish and Wildlife Service, Hadley MA

APPENDIX 10

EQUIPMENT AND MATERIALS STOCKPILED FOR MIGRATORY BIRDS RESPONSE ACTIVITIES: CANUSLANT AREA ¹

LOCATION	RESPONSE ACTION	AMOUNT OF SUPPLIES	TOTAL BIRDS TO BE ASSISTED WITH SUPPLIES	SUPPLY OWNER/CONTACT PERSON/ 24-HOUR CONTACT NUMBER
Bangor	Hazing	1 Breco Buoy 1 Phoenix Marine Wailer 2 Propane Cannons	Birds at offshore locations Birds at onshore locations	Donald Katnik MDIFW 207-941-4455 (phone) 207-356-5138 (24-hour phone) 207-941-4450 (fax) donald.katnik@maine.gov
Augusta	Hazing	Up to 8 propane cannons Pyrotechnics 3 Shotguns 2 Boats: 17' Boston Whaler (90 hp) and 17' Lund John Boat (60 hp jet) 1 canoe and 3 kayaks Electronic Bird Frightening Alarm	Birds at onshore locations Birds at offshore locations	Kirk Shively USDA, APHIS, Wildlife Services 207-622-8263 (office) 207-458-5868 (cell, 24 hr) 207-622-5760 (fax) kirk.j.shively@aphis.usda.gov

¹ Information in this appendix has not been verified by wildlife trustee resource agencies. The appearance of wildlife response information in this appendix does not constitute compliance by oil spill contingency plan holders with state oil spill contingency plan requirements.

APPENDIX 10, CONT.

LOCATION	RESPONSE ACTION	AMOUNT OF SUPPLIES	TOTAL BIRDS TO BE ASSISTED WITH SUPPLIES	SUPPLY OWNER/CONTACT PERSON/ 24-HOUR CONTACT NUMBER
Sackville, NB	Hazing	2 boats: 17'boats (25 hp) 2 shot guns Pyrotechnics 10 canoes, 2 kayaks		Keith McAloney Canadian Wildlife Service (506)364-5013 (work) (902)667-5044 (cell)
	Hazing			Kevin Connor New Brunswick Department of Natural Resources 506-453-2440 (office) 506-476-1082 (cell) 506-453-6699
Augusta	Capture and field stabilization	4 Mist nets (shorebird size) 3 large, long-handled dip nets 12 bird-holding crates Duck traps	Birds at onshore locations	Kirk Shively USDA, APHIS, Wildlife Services 207-622-8263 (office) 207-458-5868 (cell, 24 hr) 207-622-5760 (fax) kirk.j.shively@aphis.usda.gov

APPENDIX 10, CONT.

LOCATION	RESPONSE ACTION	AMOUNT OF SUPPLIES	TOTAL BIRDS TO BE ASSISTED WITH SUPPLIES	SUPPLY OWNER/CONTACT PERSON/ 24-HOUR CONTACT NUMBER
Bangor	Capture, field stabilization, and rehabilitation	1-supply trailer 1- net gun	15-25 birds	Donald Katnik MDIFW 207-941-4455 (phone) 207-356-5138 (24-hour phone) 207-941-4450 (fax) donald.katnik@maine.gov (email)
Jonesboro	Capture and field stabilization	1- response/capture kit	5 birds	Thomas Schaeffer MDIFW 207-434-5927 (phone) 207-592-6022 (cell) 207-434-5923 (fax) thomas.schaeffer@maine.gov (email)
Moosehorn NWR	Capture and field stabilization	1- net gun Mist nets Duck traps	50-75 birds	Maurice Mills Moosehorn NWR 907-723-6471 (phone) 907-225-7002 (24-hour phone) 907-247-1117 (fax) Maurice Mills@fws.gov (email)
CWS Sackville	Capture (migratory birds and raptors)	Duck Traps mist nets, gill nets for molters drive traps for land cannon nets	25 birds	Canadian Wildlife Service Keith McAloney- (506)364-5013 Bruce Pollard – (506) 364-5041

APPENDIX 11 A

ENTITIES WITH BIRD DETERRENT PERSONNEL: CANUSLANT AREA

AGENCY/ENTITY	CONTACT INFORMATION	ESTIMATED # OF TRAINED INDIVIDUALS	LOCATION
USDA, APHIS, Wildlife Services	Kirk Shively 207-622-8263 (office) 207-458-5868 (cell, 24 hr) 207-622-5760 (fax) kirk.j.shively@aphis.usda.gov	7	Augusta, Maine

APPENDIX 11 B

ENTITIES WITH CAPABILITY TO RESPOND TO MARINE MAMMALS IN DISTRESS: CANUSLANT AREA

AGENCY/ENTITY	CONTACT INFORMATION	ESTIMATED # OF TRAINED INDIVIDUALS	LOCATION
Marine Animal Response Society	1-866-567-6277	2	Predominantly Nova Scotia and some areas of New Brunswick
Maine Department of Marine Resources – Marine Animal Reporting Hotline	1-800-532-9551		Maine

APPENDIX 12

FACTORS TO CONSIDER IN DETERMINING WHEN TO BEGIN AND END A WILDLIFE CAPTURE AND TREATMENT PROGRAM

The following factors are not presented in any order of relative importance. Each factor must be considered and the resulting information must be documented by appropriate wildlife resource agency representatives and by the responsible party (during a responsible party response).

- < Response-team safety considerations.
- < Status of the species affected (e.g., special management concern, threatened, endangered; red or blue listed species).
- < Population status of the species affected (e.g., international, national, and regional significance).
- < Estimated percentage of the population affected.
- < Use of the species as a subsistence resource.
- < Logistical constraints in treating oiled animals (e.g., airports/runways and equipment availability).
- < Anticipated success in effectively treating oiled animals (i.e., expected survival rate of treated wildlife).
- < Public concern.
- < Projected cost of treatment program and funding availability.
- < Whether wildlife capture and treatment contractors (if required) agreeable to appropriate Canadian and U.S. wildlife resources agencies are available.
- < Whether adequate treatment facilities exist; e.g., facilities must maintain wildlife in an environment that has low risk of disease.
- < Whether capture and treatment program and subsequent release poses any unreasonable risk (e.g., disease, social disruption, or mortality) to wild animal populations.
- < Whether sufficient facilities exist for keeping wildlife in captivity that cannot be released back into the wild without further rehabilitation.
- < Whether appropriate Canadian and U.S. wildlife resource agency representatives have sufficient staff to perform required oversight, monitoring, and/or activities required for a wildlife capture and treatment program.

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Estimated volume of product potentially released: _____ gals/bbls

APPENDIX 13, CONT.

II. WILDLIFE DATA	
SPECIES/SPECIES GROUPS	ESTIMATED NUMBERS OF WILDLIFE AND LOCATION RELATIVE TO SPILL RELEASE
e.g., Waterfowl	e.g., 100 eiders 1 mile from leading edge of spill

APPENDIX 13, CONT.

III. PRIMARY RESPONSE ACTIONS

Describe any response actions underway or previously taken: (1) to protect wildlife and/or wildlife habitat, and (2) that may affect proposed capture, transport, stabilization, or wildlife treatment activities.

APPENDIX 13, CONT.

IV. SECONDARY RESPONSE ACTIONS: PRE-EMPTIVE CAPTURE

A. Describe pre-emptive capture plan, including: estimated numbers of birds/marine mammals requiring capture; location(s) of those birds/marine mammals; techniques to be used for capture; estimated number of capture personnel required; equipment, materials, and logistics support required; description of holding facility; length of time to be held; and release plan:

B. Information on Person in Charge of Pre-emptive Capture:

Name:

Affiliation:

Address:

Qualifications:

Contact Information (phone/fax/email):

Permit Holder(s):

APPENDIX 13, CONT.

V. TERTIARY RESPONSE ACTIONS: CAPTURE AND TREATMENT

A. Briefly describe each element of capture, handling, transportation (including importing and exporting), stabilization, and treatment plan, including: estimated numbers of birds (for each species or species group)/marine mammals requiring capture; location(s) of those birds/marine mammals; techniques to be used for capture; estimated number of capture personnel required; equipment, materials and facility (e.g., stabilization and treatment) requirements; and logistics and other technical support required:

B. Information on Person or Persons in Charge of Capture and Treatment Program:

Name:

Affiliation:

Address:

Qualifications:

Contact Information (phone/fax/email):

Permit Holder(s):

APPENDIX 13, CONT.

VI. REQUESTOR INFORMATION	
Signature of requestor:	_____
Printed name of requestor:	_____
Title of requestor:	_____
Requestor affiliation:	_____
Requestor representing:	_____
Contact information of requestor (phone/fax/email):	_____ _____
Time and Date Request Submitted to CCG OSC or USCG FOSC, and the following wildlife resource agency representatives* :	_____
CWS (identify contact):	_____
DFO (identify contact):	_____
NB DNR (identify contact):	_____
USFWS (identify contact):	_____
NOAA/NMFS (identify contact):	_____
MDIFW (identify contact):	_____

*Contact information for wildlife resource agency representatives is listed in Appendix 2.

APPENDIX 13, CONT.

VII. WILDLIFE RESOURCE AGENCY RESPONSE TO REQUEST

Date and time request received by wildlife resource agency representative(s):

Canadian Wildlife Service

Name: _____ Date: _____

Time: _____ Phone #: _____ Email: _____

Fisheries and Oceans Canada

Name: _____ Date: _____

Time: _____ Phone #: _____ Email: _____

New Brunswick Department of Natural Resources

Name: _____ Date: _____

Time: _____ Phone #: _____ Email: _____

U.S. Fish and Wildlife Service

Name: _____ Date: _____

Time: _____ Phone #: _____ Email: _____

NOAA/National Marine Fisheries Service

Name: _____ Date: _____

Time: _____ Phone #: _____ Email: _____

Maine Department of Inland Fisheries and Wildlife

Name: _____ Date: _____

Time: _____ Phone #: _____ Email: _____

CWS Recommendation/Decision:

- Approve requested program(s) as proposed
- Approve requested program(s) with the following conditions: _____
- Deny requested program(s)

Signature: _____ Time: _____

Date: _____

APPENDIX 13, CONT.

VII. WILDLIFE RESOURCE AGENCY RESPONSE TO REQUEST (CONT.)

DFO Recommendation/Decision:

- Approve requested program(s) as proposed
- Approve requested program(s) with the following conditions: _____
- Deny requested program(s)

Signature: _____ Time: _____

Date: _____

NB DNR Recommendation/Decision:

- Approve requested program(s) as proposed
- Approve requested program(s) with the following conditions: _____
- Deny requested program(s)

Signature: _____ Time: _____

Date: _____

USFWS Recommendation/Decision:

- Approve requested program(s) as proposed
- Approve requested program(s) with the following conditions: _____
- Deny requested program(s)

Signature: _____ Time: _____

Date: _____

MDIFW Recommendation/Decision:

___ Approve requested program(s) as proposed

___ Approve requested program(s) with the following conditions: _____

___ Deny requested program(s)

Signature: _____ Time: _____

Date: _____

APPENDIX 13, CONT.

IX. CCG ON SCENE COMMANDER AND USCG FEDERAL ON-SCENE COORDINATOR DECISION

CCG On Scene Commander's decision regarding request to initiate wildlife response program:

Request received by CCG On Scene Commander: _____

Time: _____ Date: _____

___ Concur with wildlife resource agency representatives

___ Concur with attached conditions

___ Do not concur

Signature: _____ Time: _____

Date: _____

USCG Federal On-Scene Coordinator's decision regarding request to initiate wildlife response program:

Request received by USCG Federal On-Scene Coordinator: _____

Time: _____ Date: _____

___ Concur with wildlife resource agency representatives

___ Concur with attached conditions

___ Do not concur

Signature: _____ Time: _____

Date: _____

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APPENDIX 14

POTENTIAL BIRD STABILIZATION AND TREATMENT FACILITIES: CANUSLANT AREA ^{1, 2}

FACILITY/ ADDRESS	OWNER/ CONTACT INFORMATION (24-Hour Number)	COMMENTS
Calais Armory ¹ Calais ME	Dan Nadeau. Maine Army National Guard 207-430-2105 (phone) 207-561-0969 (cell) 207-626-4553 (fax)	Site inspection pending
Belfast Armory ¹ Belfast, ME	Dan Nadeau. Maine Army National Guard 207-430-2105 (phone) 207-561-0969 (cell)	Site inspection pending
Westbrook Armory ¹ Westbrook, ME	Dan Nadeau. Maine Army National Guard 207-430-2105 (phone) 207-561-0969 (cell)	Site inspection pending
Inland Fisheries and Wildlife Service Building Jonesboro, ME	Thomas Schaeffer, MDIFW (207) 434-5927 (phone) 207-592-6022 (cell)	Facility inspected by IBRRC (October 2006). Staging area or small rehabilitation

¹ In the event a migratory bird capture program is initiated, the availability of these facilities must be verified at that time.

² MDIFW currently holds an MOU to use these armories unless DVEM determines it will interfere with military operations.

ATTACHMENT 14, CONT.

FACILITY/ ADDRESS	OWNER/ CONTACT INFORMATION (24-Hour Number)	COMMENTS
USFWS – Moosehorn NWR Baring ,ME	William Kolodnicki USFWS refuge manager	
Washington Co. Community College- Marine Technology Center: Boat School	16 Deep Cove Road Eastport, ME 04631 207-853-2518	Potential small rehabilitation center, need to investigate

¹ In the event a migratory bird capture program is initiated, the availability of these facilities must be verified at that time. MDIFW currently holds an MOU to use these armories unless DVEM determines it will interfere with military operations.

APPENDIX 15

GUIDELINES FOR CROSS-BORDER TRANSPORTATION OF OILED WILDLIFE

The checklist at the end of Section VIII of the CANUSLANT annex provides detailed information about moving personnel and equipment across the international border during an oil spill. Additional information for agency representatives involved in wildlife response activities should also be considered.

- All personnel (including contractors) must have a valid passport and necessary personal identification.
- It is best to have some documentation that CANUSLANT has been activated on your person.
- All vehicles must have proof of insurance.
- Call the border station prior to attempting to cross to brief customs/border services officials on the situation ahead of time (a daily notice/advanced notification should have been provided to border stations when the CANUSLANT annex was activated, but a follow-up FYI is recommended).
- Ideally all agency personnel crossing the international border for response purposes will be agency staff in uniform.
- It is better to minimize the number of personnel and vehicles crossing the border.
- Personnel should have appropriate level of OSHA (U.S.) or Canada Labour Code Part II training/certification because the oil on the wildlife is a hazardous substance. Appropriate training is essential if personnel will be entering the spill site to pick up animals. See also Appendix J Joint Marine Pollution Contingency Plan Atlantic Geographic Annex (CANUSLANT).

APPENDIX 16

MARINE MAMMAL AND SEA TURTLE STRANDING CONTACTS

Northeast Region Marine Mammal and Sea Turtle Stranding Network Contact List

Institution	Contacts	Response	Rehab
UNITED STATES - MAINE			
<p>Allied Whale, College of the Atlantic 105 Eden Street Bar Harbor, ME, 04609 Allied Whale: (207) 288-5644</p>	<p>Sean Todd, Director Rosemary E. Seton, Stranding Coordinator Ph: 207-288-5015, x256 Fax: 207-288-4126 rseton@coa.edu</p>	<p>Cetaceans Pinnipeds Sea Turtles</p>	<p>N/A</p>
<p>Maine Department of Marine Resources P.O. Box 8 194 McKown Point Road West Boothbay Harbor, ME 04575 (207) 633-9500 Maine Marine Animal Reporting Hotline: 800-532-9551</p>	<p>Lynda Doughty Ph: 207-633-9683 Fax: 207-633-9579 Cell: 207-557-0109 lynda.doughty@maine.gov www.maine.gov/dmr</p>	<p>Cetaceans Pinnipeds Sea Turtles</p>	<p>N/A</p>
<p>University of New England 11 Hills Beach Road Biddeford, ME 04005 Pager: (207) 915-0169</p>	<p>Keith A. Matassa Rehabilitation Coordinator Ph:207-283-0170 ext 2670 Fax: 207-294-5945 Cell: 207-468-9621 kmatassa@une.edu</p>	<p>Cetaceans Pinnipeds Sea Turtles</p>	<p>Small cetaceans Pinnipeds Sea Turtles</p>
UNITED STATES – MASSACHUSETTS			
<p>The Whale Center of New England 24 Harbor Loop Gloucester, MA 01930 Phone: (978) 281-6351</p>	<p>Stranding Coordinator Ph: 978-281-6351 Pager:978-316-4436 Fax: 978-281-5666</p>	<p>Cetaceans Pinnipeds</p>	<p>N/A</p>

<p>New England Aquarium Central Wharf Boston, MA 02110 Hotline: (617) 973-5247</p>	<p>Connie Merigo Stranding Coordinator Ph: 617-226-2102 Cell: 617-875-6777 cmerigo@neaq.org</p>	<p>Cetaceans Pinnipeds Sea Turtles</p>	<p>Small cetaceans Pinnipeds Sea Turtles</p>
<p>Cape Cod Stranding Network - IFAW P.O. Box 193 Yarmouthport, MA 02675 Hotline: 508-743-9548</p>	<p>Katie Touhey Director Ph: 508-744-2271 Fax: 508-744-2099 ktouhey@ifaw.org</p>	<p>Cetaceans Pinnipeds</p>	<p>N/A</p>
<p>National Marine Life Center 120 Main Street, P.O. Box 269 Buzzards Bay, MA 02532 508-743-9888</p>	<p>Kathryn Zagzebski Executive Director Cell: 774-313-8850 Fax: 508-759-5477 kzagzebski@nmlc.org</p>	<p>N/A</p>	<p>Sea Turtles Pinnipeds</p>
<p>Wellfleet Bay Wildlife Sanctuary Massachusetts Audubon 291 State Highway, Route 6 P.O. Box 236 South Wellfleet, MA 02663 508-349-2615</p>	<p>Bob Prescott Director, WBWS (508) 349-2615</p>	<p>Sea Turtles</p>	<p>N/A</p>
<p>Provincetown Center for Coastal Studies 115 Bradford Street Provincetown, MA 02657 (508) 487-3622</p>	<p>Brian Sharp Sea Turtle Disentanglement (508) 487-3622 bsharp@coastalstudies.org</p>	<p>Sea Turtle Disentanglement</p>	<p>N/A</p>
UNITED STATES - RHODE ISLAND and CONNECTICUT			
<p>Mystic Aquarium Marine Mammal and Sea Turtle Stranding Program 55 Coogan Blvd. Mystic, CT 06355-1997 (860) 572-5955</p>	<p>Janelle Schuh Stranding Coordinator Marine Mammal and Sea Turtle Stranding Program 860-572-5955 ext. 154 jschuh@mysticaquarium.org</p>	<p>Cetaceans Pinnipeds Sea Turtles</p>	<p>Small cetaceans Pinnipeds Sea Turtles</p>

UNITED STATES - NEW YORK			
Riverhead Foundation for Marine Research 467 East Main Street Riverhead, NY 11901 Hotline: 631-369-9829	Kim Durham Stranding Program Director kdurham@riverheadfoundation.org Ph: 631-369-9840 Fax: 631-369-9826	Cetaceans Pinnipeds Sea Turtles	Small cetaceans Pinnipeds Sea Turtles
UNITED STATES - NEW JERSEY			
Marine Mammal Stranding Center PO Box 773 3625 Brigantine Blvd Brigantine, NJ 08203 (609) 266-0538	Robert Schoelkopf Director Ph: (609) 266-0538 mmsc@verizon.net	Cetaceans Pinnipeds Sea Turtles	Pinnipeds Sea Turtles
UNITED STATES – DELAWARE			
MERR Institute, Inc. PO Box 411 Nassau, DE 19969 (302) 228-5029 Street Address: 801 Pilottown Road Lewes, DE 19958	Suzanne Thurman Executive Director Cell: 302-945-0677 Fax: 302-684-4976 merrins@earthlink.net	Cetaceans Pinnipeds Sea Turtles	N/A
UNITED STATES – MARYLAND			
Maryland Department of Natural Resources Cooperative Oxford Laboratory 904 South Morris St. Oxford, MD 21654 Hotline: (800) 628-9944	Lauren Shilling Natural Resources Biologist Ph: 410-226-5908 x 137 Fax: 410-226-0120 tkimmel@dnr.state.md.us	Cetaceans Pinnipeds Sea Turtles	N/A
National Aquarium in Baltimore 501 East Pratt St, Pier 3 Baltimore, MD 21202-3194 (410) 576-1098	Jennifer Dittmar Stranding Coordinator Marine Animal Rescue Program Ph: 410-576-8723 Fax: 410-373-0083	Cetaceans Pinnipeds Sea Turtles	Small cetaceans Pinnipeds Sea Turtles

	jdittmar@aqua.org		
UNITED STATES - WASHINGTON, DC			
Smithsonian Institute National Museum of Natural History Washington, DC 20560 (202) 633-1260	Charley Potter Ph: 202-633-1261 Jim Mead Ph: 202-633-1256 Fax: 202-786-2979	Cetaceans	N/A
UNITED STATES – VIRGINIA			
Virginia Aquarium & Marine Science Center 717 General Booth Blvd. Virginia Beach, VA 23451 Hotline: (757) 437-6159	Susan G. Barco 717 General Booth Blvd. Virginia Beach , VA 23451 757-437-7765 voice 757-437-4933 fax ocrab@erols.com	Cetaceans Pinnipeds Sea Turtles	Pinnipeds Sea Turtles
Virginia Institute of Marine Science College of William and Mary P.O. Box 1346, FSL 117 Rt. 1208 Greate Road Gloucester Point, Virginia 23062	Diane Tulipani Sea Turtle Program/VA Sea Turtle Stranding Network Fisheries Science Department Ph: (804) 684-7807 Fax: (804) 684-7327 dctulip@vims.edu	Sea Turtles	Sea Turtles