CANADA - UNITED STATES JOINT

MARINE POLLUTION CONTINGENCY PLAN (JCP)

ANNEX 3

PACIFIC - GEOGRAPHICAL ANNEX

(CANUSPAC)

This Annex is the responsibility of:

Canadian Coast Guard
Western Region
25 Huron Street Victoria,
B.C. V8V 4V9
Canada

United States Coast Guard
Thirteenth District
Response Division
915 Second Avenue, Room 3506
Seattle, Washington
98174-1067
USA

Letter of Promulgation

Pursuant to the Canada – US Joint Marine Pollution Contingency Plan (JCP) the following document presents the coordinated efforts of the United States Coast Guard – District 13 (USCG) and the Canadian Coast Guard – Western Region (CCG) to integrate pollution incident responses.

As per the JCP, this Geographic Annex – Pacific Coast, also known as CANUSPAC, presents the basic information necessary to execute an efficient and effective response operation in the contiguous waters. Contiguous waters to which CANUSPAC applies involve those in the Juan de Fuca region, including Juan de Fuca, Haro, and Georgia Straits as well as Boundary Passage.

This document is reviewed annually and exercised in accordance with the principles outlined in the JCP. CANUSPAC may be modified by mutual consent of the Parties as outlines in Section 1100 of the JCP and Section 400 of the Annex.

Roger Girouard
Assistant Commissioner, Western Region
Canadian Coast Guard

Signed at: Victoria, BC
Date: 20 June 2016

RADM Richard Gromlich
Commander Thirteenth District
United States Coast Guard

Signed at: SEATTLE, WA
Date: 16 MAY 2016

Emergency Contact Numbers

These numbers are provided for plan activation.

FOR NOTIFICATION OF THE CANADIAN REPRESENTATIVE

Contact CCG-Western Region Environmental Response at the 24-hour Regional Operations Centre in Victoria.

Ph: 1-800-889-8852
Fax: 250-413-2810

FOR NOTIFICATION OF THE UNITED STATES REPRESENTATIVE

USCG Sector Puget Sound at the 24-hour Joint Harbor Operations Center in Seattle.

Ph: 206-217-6001
Fax: 206-217-6348

Revision Record

TRANSMITTAL NUMBER	DATE ISSUED	DATE ENTERED	ENTERED BY: Signature
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100 Purpose

The purpose of the Pacific Geographical Annex (CANUSPAC) to the Canada - U.S. Joint Marine Pollution Contingency Plan (2014), is to identify the specific processes whereby both Coast Guards communicate, consult and coordinate in response to discharge or threat of discharge of pollution into the contiguous waters of interest of both Canada and the United States.

The response to marine pollution or threat of marine pollution shall be consistent with the *Canadian Coast Guard Marine Spills Contingency Plan - Pacific Region* and the *Northwest Area Contingency Plan* (USCG).

No action contained within this Annex shall be interpreted as usurping the authority or processes identified in the respective national response systems.

200 Area of Coverage

This Geographical Annex applies to the contiguous waters defined by the international boundary between British Columbia and Washington comprising the waters of the Juan de Fuca region on the Pacific Coast as shown in Figure 1 below.

Figure 1: CANUSPAC Area of Coverage

300 Responsibilities

For current contact information see Appendix 1.

Canada

Position	Responsibilities
Assistant Commissioner Canadian Coast Guard Western Region	• Regional Authority • Development, maintenance and promulgation of CANUSPAC Geographical Annex • Plan activation
Regional Director of Marine Programs Canadian Coast Guard Western Region	• Plan activation
Superintendent Environmental Response Canadian Coast Guard Western Region	• JRT Co-Chair • Execution and functions regarding preparedness exercises and overseeing issues of operational readiness for their geographical areas of responsibility • Recommends plan activation
Senior Response Officer Environmental Response Canadian Coast Guard Victoria Base	• Incident Commander for Vancouver Island • Recommends plan activation
Senior Response Officer Environmental Response Canadian Coast Guard Richmond Base	• Incident Commander for South Coast and Lower Mainland • Recommends plan activation

United States

Position	Responsibilities
District Commander Thirteenth Coast Guard District United States Coast Guard	• District Commander • Plan activation
Incident Management & Preparedness Advisor United States Coast Guard Thirteenth Coast Guard District	• Joint Response Team Co-Chair • Coordinate district planning and activities related to the CANUSPAC Annex to the JCP. • Recommends Plan Activation • Deactivate Plan • Give advice and counsel to facilitate coordinated plans, prep and response. • Provide advisory support to the USCG FOSC and CCG OSC.
Chief, Response Department United States Coast Guard Thirteenth Coast Guard District	• Joint Response Team Alt Co-Chair • Execution and functions regarding preparedness exercises and overseeing operational readiness for their geographical areas of responsibility • District Response Advisory Team • Command Center
Commander Sector Puget Sound United States Coast Guard	• Captain of the Port • Federal On Scene Coordinator • Recommends Plan activation
Command Center United States Coast Guard Thirteenth Coast Guard District	• Provides communication support for operation as requested by District Commander and Chief, Response Department

400 Plan Review and Update

The Annex will be reviewed annually and updated as follows:

Review

The CCG and the USCG will annually review this plan to take into consideration changes in law, policy, environmental factors, and lessons learned after oil pollution incidents and exercises.

Revisions

The CCG/USCG will jointly distribute agreed upon revisions to all JRT Members.

Revision Record

Upon receiving a revision transmittal, please ensure that its number is next in sequence to the previous issue. Process the revisions according to the transmittal instructions and indicate your completion of the change on the Revision Record.

Revision Requests
All requests or suggestions for revision to this Annex should be forwarded to Regional Director of Marine Programs, CCG Western Region or the District Commander (drm), Thirteenth Coast Guard District.

500 Pattern of Response

In the spirit of the International Convention on Oil Pollution Preparedness, Response and Co-Ordination 90 (OPRC) and the long history of cooperation between both Coast Guards, the following are the guiding principles for a response under the authority of this Annex:

- For every response to marine pollution, the safety of the response personnel, crews, and the public is paramount;
- Timely, accurate and open communications are essential from the initial notification of pollution through the conclusion of the response activities and debrief;
- Wherever possible, both Coast Guards will consult the other on response actions that may impact the other; and
- Wherever practicable, both Coast Guards will coordinate response activities to maximize clean-up effort.

501 Response Operations

Response actions of the USCG and CCG may be classified as coordinated, joint, or separate response operations. The location, time and nature of the response operations will determine the extent of interactions. During a joint coordinated response, there exists a requirement for the co-chairs and members of the JRT to provide the following:

- Conflict resolution
- Hastening procedures within their jurisdiction

All requests for such actions should be made through the respective co-chairs. The co-chairs will be responsible for facilitating the request.

502 Response Actions

Coordinated actions will involve activities that are enhanced by involvement and input of both parties. Examples include logistic activities near and cross-border such as: beach cleanup; waste disposal; Shoreline Cleanup Assessment Technique

(SCAT) process; and salvage operations.

Joint response actions are those that can best be completed by both parties sharing limited resources and expertise. Examples of joint operations may include: initial over-flights, wildlife protection, personnel support, securing of source, establishment of on-scene communications, open- water skimming, and public affairs.

Separate response actions will involve those activities that are required/ permitted in one country but not the other. Examples may include in-situ burning or shoreline cleaning well away from the border.

600 Operational Structure

Canada
During a response to a cross-border oil spill, the CCG's structure would be in line with an ICS (Incident Command System) Command Structure.

United States
Refer to the *Northwest Area Contingency Plan.*

601 Designation of On-Scene Commander and Coordinator

For the purpose of this Annex the two Coast Guards will be the primary coordinating agencies for all marine spills, even in cases where other lead agencies or polluters provide an Incident Commander (IC) or On-Scene Coordinator.

Canada
The source of the pollution determines lead agency. For any source originating in Canadian waters that enters foreign waters, the Canadian Coast Guard will appoint an On-Scene Commander for operations within Canadian Waters. Further details of the lead agency designation can be found within the Mandate and Role section of the *CCG Marine Spills Contingency Plan – National Chapter Section 1.*
http://www.ccg-gcc.gc.ca/eng/Ccg/er_National_Response_Plan/s1#171

United States
Each responsible party for a vessel or a facility from which oil is discharged, or which poses the substantial threat of a discharge of oil, must take action to respond to the spill (*Oil Pollution Act of 1990*). The USCG is the Federal On-Scene Coordinator (FOSC) in the U.S. region covered by this Annex. The USCG FOSC will utilize the Incident Command System (ICS) and establish a Unified Command with the state of Washington (WA Department of Ecology) as the State OSC, and a Responsible Party Incident Commander. The UC may also include affected tribes and local counties as appropriate. In cases where the responsible party cannot be located or is unwilling or unable to respond, the USCG will assume control of the response and use federal funds to minimize and mitigate damage. Refer to the *Northwest Area Contingency Plan* for further details.

602 Other Critical Personnel

Canada
Refer to the *Canadian Coast Guard Marine Spills Contingency Plan for Pacific Region* and its accompanying Area Plan for specific personnel involved in a response.

United States
Refer to the *Northwest Area Contingency Plan* (NWACP) Section 9101, Regional Response Team and Area Committee Charter.

603 Government Resources Available for Normal Response Operations

Refer to the *Canadian Coast Guard Marine Spills Contingency Plan - Pacific Region Area Plan* and *Northwest Regional Area Plan* for Response Inventory information.

See Appendix 4 for locations of response resource depots.

604 Liaison Officer

During a coordinated response, both Coast Guards shall exchange representatives to participate as International Coast Guard liaison officers to facilitate the flow of information and to support coordinating activities two separate command posts are used.

The liaison officer shall report to the respective OSC. Such a representative shall be someone with some degree of decisions-making authority, plus functional knowledge and experience in;

- spill management
- contingency planning
- pollution response equipment
- the Joint Contingency Plan, and
- Coast Guard and industry response capabilities.

International Coast Guard Liaison officers shall have immediate access to, and be able to speak for, their own Coast Guard On-Scene Commander or Coordinator.

700 Notification Procedures

Emergency Notifications

1. **Notifications to Canada**.

   In the event of a harmful substance incident in U.S. contiguous waters that requires notification to the Canadian authorities the following office shall be notified:

   Canadian Coast Guard Regional Operations Center:

   1-800-889-8852 (24-hour number)

2. **Notifications to United States.** In the eve

   In the event of a harmful substance incident in Canadian contiguous waters that requires notification to the American authorities the following office shall be notified:

   USCG Sector Puget Sound at the 24-hour Joint Harbor Operations Center in Seattle.

   Ph: 206-217-6001

   Fax: 206-217-6348

701 Plan Activation

The CCG Assistant Commissioner or the District Commander 13th Coast Guard District, or their designated representatives, may activate by agreement the JCP and CANUSPAC Annex. The JCP and CANUSPAC Annex shall be activated only by formal initiation. This will normally be done by telephone followed by an activation message or letter sent via email or fax.

The activation of the CANUSPAC Annex will occur when:

- A pollution incident originates within the area of responsibility of one Party and is accompanied by a threat of the pollutant spreading into the area of responsibility of the other Party, or where the spreading has already occurred;

- A pollution incident occurs where no pollutants have spread, or threaten to spread into both areas of responsibility, but the magnitude of the incident or other factors makes a joint response desirable; or

- A pollution incident originates outside the areas of responsibility of both Parties and results in a threat to the spread of the pollutant into the area of responsibility of one or both Parties.

702 Plan Deactivation

A recommendation to deactivate the JCP in response to a particular incident shall be made by agreement of the two OSCs. The JRT co-chair from the Party which originally activated the JCP shall deactivate it by message after consultation with the co-chair from the other Party. The message will clearly establish the date and time of the cessation of the joint response. Refer to Appendix 6 of the JCP for message format.

800 Procedures for Border Clearance

801 Responding from Canada into the United States - Customs and Excise Regulations

During an emergency, United States Customs and Border Protection Regulations provide for the movement of work force and equipment from Canada into the United States. Title 19, United States Code Section 1322 International Traffic and Rescue work, (b) states (in part):

> *The Secretary of the Treasury may provide by regulation or instruction for the admission, without entry and without the payment of duty or tax imposed upon or by reason of importation, of:*
>
> *(1) Aircraft, equipment, supplies, and spare parts for use in searches, rescues, investigations, repairs, and salvage in connection with accidental damage to aircraft,*
>
> *(2) Fire-fighting and rescue and relief equipment and supplies for emergent temporary use in connection with,*
>
> *(3) Rescue and relief equipment and supplies for emergent temporary use in connection with floods and other disasters*

Pursuant to this section, U.S. Customs and Border Security Regulations allow pollution response, rescue and relief equipment into the country without payment of duty.

801.1 Customs and Excise Procedures for entry into the United States

When federal involvement becomes necessary in a trans-boundary incident, a USCG official notifies U.S. Customs and Border Protection Service (USCBP) Port Director that the JCP (CANUSPAC) has been activated, and that CCG and/or response organization personnel and equipment will be arriving to deal with a

release affecting or threatening the United States. The telephone notification will be followed by a FAX to U.S. Customs and a copy to the FOSC.

U.S. Customs and Border Protection Service should be notified as soon as possible after the arrival in the U.S. of any carrier and/or equipment. This may be done by telephone and/or fax if necessary. In no way shall any carrier responding to an emergency be delayed by U.S. Customs to report its arrival.

The United States Customs and Border Protection Area Port Director may authorize or direct the following;

- Expedited entry/clearance for response equipment involved with emergency response with no duty or other fees to be collected (clearance is valid for 90 days).

- Where equipment enters the United States at other than a port of entry, e.g., air or water, it must be reported to USCBP within 10 days, or as soon as is practicable.

- Material, equipment and supplies dispatched from Canada must remain under supervisory control of an appropriate Canadian authority.

- Equipment brought into the United States must be returned to Canada within 90 days unless an extension is granted or other arrangements are made at the time of entry or during the response. Consumables need not be brought back into Canada.

- Equipment returning to Canada will be required to be checked out through USCBP prior to the leaving the United States.

801.2 Employment and Immigration Regulations for entry into the United States

The Immigration and Nationality Act provides the USCBP the responsibility for regulating the movement of people across the international borders into the U.S. This includes the ability to expedite the movement of emergency workers from Canada into the U.S., upon request from the USCG, to assist the U.S. in responding to emergencies.

Section 212(d)(3) of the Immigration and Nationality Act provides the Director Field Operations, USCBP, the discretion to allow Canadian workers, with special skills, who might not otherwise be allowed into the U.S. to temporarily enter the U.S. to assist in the response;

- When United States federal involvement in a trans-boundary incident becomes necessary, a USCG official notifies USCBP of an international spill and the need for trained Canadian workers to support the emergency response.

- The USCG official must specify that the Canada/United States Joint Plan/CANUSPAC has been activated. Initial telephone notification will be followed up with a FAX to USCBP and the FOSC.

- The USCG official certifies to the USCBP that insufficient trained response workers are available to respond in a timely manner.

- Secure from United States Immigration a form 1-94 for each foreign worker that is not a citizen of Canada or of the British Commonwealth. All personnel should have government identification with them. In addition, non-Canadian citizens must have passport or visa with them.

- Response organizations must provide safe transport for an USCBP Officer to inspect response operations.

- US Coast Guard should provide 24-hour advanced notice of entry if possible.

- Workers from Canada may work only 90 days in the United States, unless other provisions are made.

- Upon departing the United States, the Canadian workers must check out through an Immigration and Naturalization Service (INS) office.

See Appendix 1 for full contact information for U.S. Customs and Border Protection.

See Appendix 2 for the U. S. Customs and Immigration checklist.

802 Responding from the United States into Canada - Canada Border Services Agency

Procedures for Processing Emergency Support Personnel CBSA – Pacific Region

Background

In the event of an emergency, the Canada Border Services Agency (CBSA) has specific regulations governing the movement of persons and goods required for an effective response. It is recognized that emergencies can occur as a result of natural disasters such as floods, fire or earthquake, but may also result from an industrial accident or a medical emergency involving one or more patients.

The entry of equipment and personnel into Canada is controlled by the CBSA.

The following procedures have been developed to assist in efficiently processing emergency support personnel, goods, and patients (where applicable) in the event of an emergency.

Advance Notification
In an effort to provide expedited processing of emergency vehicles, equipment and personnel, it is requested that advance notification be provided to the CBSA using the port level contact list provided.

The representative of the appropriate agency, municipal, provincial, state organization or service provider, will direct their call to the CBSA port of entry where clearance will take place to obtain further advice and guidance.

Emergency Response personnel and/or a representative placing the call should be prepared to provide the following information:

- Nature of the emergency and priority of response
- Starting point and destination of emergency vehicles and equipment
- Nature of the transport process and information regarding the number of vehicles, and personnel (if applicable) to be processed
- Details regarding personnel to be processed including name, date of birth, citizenship, and place of residence
- Estimated time of arrival at the port of entry

With advance notification, a CBSA representative will provide direction regarding the appropriate place of entry. In some cases, this may include the use of the NEXUS lanes at the Ports of Pacific Highway or Douglas. In the case of entry through a port without a designated NEXUS lane, the CBSA will provide instruction on the appropriate place to report to facilitate processing.

When time of circumstances do not permit an official notice of an emergency, Border Services Officers will assess the situation as it develops by consulting with local response agencies and local or regional management representatives.

Documentation
Equipment to be utilized in an emergency response may be imported on a temporary basis, duty free, under Tariff item 9993.00.00 and relived of the requirement to pay Goods and Services Tax (GST) under the "Goods for Emergency Use Remission Order".

When time permits, a Temporary Admission Permit E29B will be issued covering all equipment and supplies, not consumed in Canada. This permit will be issued covering emergency supplies and equipment without collection of security (duty or GST).

Borders Services Officers will be given discretion to determine the documentation required at the time of importation or entry based on the nature of the emergency.
In the event that documentation is completed, the record will be cancelled whenever evidence that the goods have been consumed or exported from Canada is provided, preferably from an official or person involved in the emergency situation.

The driver of the vehicle transporting equipment and personnel to Canada should adhere to the following:

- Carry 2 copies of the equipment list including serial numbers or other uniquely identifiable markings;
- Present the list to the CBSA for clearance approval upon entry;
- Report to a CBSA office prior to leaving Canada so that the temporary admission documents can be cancelled if completed on entry.

CBSA – Immigration Regulations when Entering Canada

Emergency response personnel may be granted entry to Canada as visitors. The Immigration Program – Foreign Workers Manual section R186(t) outlines how emergency service providers are exempt from obtaining a work permit when rendering services in times of emergency. These services should be aimed at preserving life and property. Under this provision, emergency service providers would not be required to obtain an employment authorization.

Coordinated or Sustained Non-Emergent Response Procedures

When the requested assistance is not of an immediate nature and involves a response that includes multiple vehicles, equipment movements and personnel, the municipality, province or agency is requested to contact the CBSA Regional Office. A determination of logistics will be made in consultation with Regional and District Management. Coordination of efforts involving personnel, vehicles and equipment may be undertaken to facilitate entry into Canada. Should a non-imminent request of this nature be made directly to ports of entry, the Regional office must also be notified as soon as possible.

Please note:
All personnel should carry the required identification to establish their identity, citizenship and place of residence. It is recognized that in emergencies, patients may not carry readily accessible identification. Border Services Officers will carry out a risk assessment and use their judgment and discretion in determining the need for identification and /or documentation in these instances.

Contact Information for Canada Border Services Agency – Pacific Region
(The corresponding USCBP Port of Entry has been provided in brackets where applicable)

Metro (Marine) Vancouver District:

PORT OF ENTRY	TELEPHONE	FAX	HOURS OPERATION
Marine Operations	604-666-0272	604-775-6792	0600 – 2400
After Hours	604-841-1315	N/A	0001 – 0600

West Coast – Coastal Operations:

PORT OF ENTRY	TELEPHONE	FAX	HOURS OF OPERATION
Victoria Marine Operations	250-363-3339 250-363-3531	250-363-8261	M – F 0830 – 1630
After Hours	250-363-0222	N/A	M – F 1631 – 0829 and weekends
Nanaimo/North Island	250-740-7174	250-754-0345	24/7
Telephone Reporting Center (TRC) – Emergency Arrival of Small Aircraft/Marine Vessel	250-363-0222		24/7
Back up line **until midnight only**	250-363-3339		
Victoria Airport	250-363-6644	250-363-6764	24/7

Okanagan and Kootenay District:

PORT OF ENTRY	TELEPHONE	FAX	HOURS OF OPERATION
Carson/Grand Forks (*Danville, WA*)	250-442-5551	250-442-2399	0800 – 2400
Cascade/Christina Lake *(Laurier, WA*)	250-447-9419	250-447-6366	0800 – 2400
Back up line	250-447-9418		

Chopaka (*Nighthawk, WA*)	250-499-2755	250-499-2845	0900 – 1700
Kingsgate/Yahk (*Eastport, ID*)	250-424-5391	250-424-5355	24/7
Back up line	250-424-5507		
Midway (*Ferry, WA*)	250-449-2331	250-449-2354	0900 – 1700
Nelway/Salmo (*Metaline Falls, WA*)	250-357-9940	250-357-9688	0800 – 2400
Back up line	250-357-9954		
Osoyoos *(Oroville, WA)*	250-495-7518	250-495-7699	24/7
Back up line	250-495-5201		
Paterson/Rossland (*Frontier, WA*)	250-362-7341	250-362-7747	24/7
Back up line	250-362-7481		
Roosville (*Roosville, MT*)	250-887-3133	250-887-3247	24/7
Rykerts/Creston (*Porthill, ID*)	250-428-2575	250-428-5310	0800 – 2400 7 days a week First Saturday in November to second Saturday in March
			0800-2300 7 days a week First Sunday in March to First Sunday in November
Back up line	250-428-3508		
Waneta/Trail (*Boundary, WA*)	250-367-9656	250-367-6387	0900 – 1700
Back up line	250-362-7341		

Pacific Highway District:

PORT OF ENTRY	TELEPHONE	FAX	HOURS OF OPERATION
Aldergrove (*Lynden, WA*)	604-856-8413	604-856-6482	0800 – 2400
Back up line	604-856-2791		

Boundary Bay (*Point Roberts, WA*)	604-943-2722	604-943-6892	24/7
Douglas (*Peace Arch, WA*)	778-545-5529	604-541-1476	24/7
Back up line 1	778-545-5530	604-541-5966	
Back up line 2	778-545-5599		
Huntingdon Traffic (*Sumas, WA*)	604-557-7121	604-850-5896	24/7
Back up line	604-557-7120		
Huntingdon Commercial *(Blaine, WA)*	604-557-7153	604-852-7348	M –F 0800 – 1630
Pacific Highway Traffic (*Blaine, WA*)	604-538-3611	604-538-0293	24/7
Back up line	604-538-3616		
Pacific Highway Commercial (*Blaine, WA*)	604-538-3637	604-538-8961	24/7
Back up line	604-538-3631		

Additional CBSA Contacts:

DIVISION	TELEPHONE	FAX	HOURS OF OPERATION	
Regional Program and Communications Division	604-666-0760	604-666-2826	M – F	0800 – 1600
Trade Compliance	604-666-6753	604-666-9320	M – F	0800 – 1600
Regional Emergency Management Coordinator	604-666-2889 778-231-0299	604-666-2826	M – F	0800 – 1600

Figure 802.1 Canada ***Border Services Agency – Pacific Region Ports of Entry***

900 Procedures for the Non-Application of Coasting Trade Laws

901 Canadian Equipment entering into the United States

U.S. Customs officials, with prior notification, will allow the entrance of Canadian response equipment during an emergency without duty in accordance with the following regulation (19 CFR §10.107).

During an emergency, United States Customs and Immigration Regulations provide for the movement of work force and equipment from Canada into the United States. Section 1322(b) of Title 19, United States Code, states (in part):

> *The Secretary of the Treasury may provide by regulation or instruction for the admission, without entry and without the payment of duty or tax imposed upon or by reason of importation, of fire-fighting and rescue and relief equipment and supplies for emergent temporary use in connection with conflagrations.*
>
> *Rescue and relief equipment and supplies for emergent temporary use in connection with floods and other disasters.*

Pursuant to this section, United States Customs Regulations allow rescue and relief equipment into the country without payment of duty.

When federal involvement becomes necessary in a trans-boundary incident, a USCG official notifies United States Customs and Border Security Agency, Port Director that the JCP / CANUSPAC Annex has been activated to deal with a release affecting or threatening the United States. The telephone notification will be confirmed with a FAX to Customs and a copy to the FOSC.

The United States Customs Port Director may authorize or direct the following:

- U.S. Customs should be notified as soon as possible after the arrival in the U.S. of any carrier and/or equipment. This may be done by telephone and/or fax if necessary. In no way shall any carrier responding to an emergency be delayed by Custom to report its arrival.

- Expedited entry/clearance for response equipment involved with emergency response with no duty or other fees to be collected (clearance is valid for 90 days).

- Where equipment enters the United States at other than a port of entry, e.g., air or water, it must be reported to United States Customs within 10 days, or as soon as is practicable. Material, equipment and supplies dispatched from Canada must remain under supervisory control of an appropriate Canadian authority.

- Equipment brought into the United States must be returned to Canada within 90 days unless an extension is granted or other arrangements are made at the time of entry or during the response; and consumables need not be brought back into Canada.

- To facilitate the movement of equipment across the border into the United States and back into Canada, it is advisable to identify ahead of time, which Ports of Entry are open at the time projected for crossing.

- It is important to maintain a list of equipment and supplies carried in each vehicle to be taken across the border. This list will be presented to the United States Customs Agent when crossing the border. It will help re-entry into Canada if the list has been stamped by Canadian Customs prior to departing Canada.

- Canadians will be required to check equipment through United States Customs prior to leaving the United States. Canadian-flag oil spill recovery vessels must report arrival and make entry when coming into the U.S. These vessels may discharge oil recovered from U.S. waters to a U.S. port (SEC.1117. 46 USC 12101) (P. L. 104-324 §1117).

902 U.S. equipment entering into Canada

Remission of duties may be granted to response equipment imported into Canada to be used temporarily for an actual or imminent pollution incident. Goods do not include personnel and all goods that have not been expended or destroyed in resolving the emergency must be exported from Canada. The issuance of Canada Customs form E29B by Customs officers will be required at the time of importation or after the fact depending on the circumstances. Where Customs officers or Royal Canadian Mounted Police are not in attendance a record will be kept by a responsible person for completing the E29B.To ensure that there are no undue impediments and to expedite such procedures for the importation of equipment requires co-ordination by responsible agencies with field Customs officials. Local Senior Customs officials should be included in Area Planning meetings and Regional Environmental Emergency Team (REET) meetings whenever possible.

1000 Exercises

The scope and frequency of exercises will be in accordance with the JCP. See section 302.

1100 Detailed Sections to the Operational Supplement

1101 Communications Plan

During the notification stage of an incident involving the joint plan activation, communications will generally be via telephone, email and fax. Incident specific communications will be assembled into a communications plan as quickly as possible and distributed via fax and email.

Cell phones can be used when and where there is adequate coverage.

VHF radio will also be used extensively during an incident, especially on scene. Common radio frequencies may be utilized and will be included in the incident specific communications plan.

As an incident progresses, a more detailed specific Communications Plan and equipment list will be developed for the incident action plan. This communications plan will be developed between the CCG and USCG OSC's.

Canada
Refer to the *Canadian Coast Guard Marine Spill Contingency Plan – Pacific Region Chapter for* information on Command Posts. The Coast Guard uses several channels as standalone simplex and has access to repeaters in cooperation with private industry.

United States

Communications information is found in *Northwest Area Contingency Plan, Section 9501 Communications Manual.*

1102 Response Resources Inventory

Canada
Refer to the *Canadian Coast Guard Marine Spills Contingency Plan for Pacific Region* and the accompanying *South Coast and Interior Area Plan* for response inventory located at each site.

United States
Refer to the *Northwest Area Contingency Plan, Geographic Response Plans for the Strait of Juan De Fuca and San Juan Islands* for response inventory .

1103 Sensitive Environments Plan

Canada
Environment Canada's National Environmental Emergency Center (NEEC) will coordinate all environmental sensitivity information. Other federal, First Nation, provincial and/or local sources of environmental sensitivity information will be incorporated into an Environmental Unit within the ICS structure.

United States
The Unified Command's Environmental Unit, within the ICS structure, working within the ICS system, will identify and incorporate concerns about protection and mitigation of potential impacts to sensitive environmental resources into response actions as appropriate. Sources of Resources at Risk and other environmental sensitivity information will include ESI maps and other databases as appropriate. Real-time environmental information will be obtained via discussions with appropriate resource personnel from US Fish and Wildlife Service, NOAA National Marine Fisheries, Washington Department of Fish and Wildlife and other local knowledge sources.

1104 Logistics Plan

Canada
Refer to *Canadian Coast Guard Marine Spills Contingency Plan- Pacific Region Area Plan.*

United States
Refer to the *Northwest Area Contingency Plan.*

1105 Integration of Volunteers

Canada
Refer to *Canadian Coast Guard Marine Spills Contingency Plan - National Chapter Section 2-2.*

United States
Volunteer information is found in the *Northwest Area Contingency Plan*.

1106 Salvage and Rescue Inventory

See Appendix 1 for contact information

Canada
Rescue: Contact the Rescue Coordination Centre (250-413-8933

Salvage: Contact the Transport Canada Marine Safety Office via CCG Regional Operations Centre.

United States
Rescue: Contact the 13th Coast Guard District Command Center

Salvage: The USCG has authority to access Federal civilian equipment, personnel and services. The current list of civilian contractors with a Basic Ordering Agreement (BOA) is accessible through the *Northwest Area Contingency Plan*.

1107 Disposal

Canada
Disposal of hazardous waste in British Columbia falls under the authority of the Provincial Government through the BC MOE. The *Waste Management Guidelines for Marine Oil Spill Response in British Columbia* and *Inventory of Potential Sites for Disposal / Storage of Oily Waste* provide guidance on this matter.

United States
Refer to Northwest *Area Contingency Plan, Section 9405, Washington State Disposal Guidelines.*

1108 Joint Response Team Contact List

Refer to Appendix 1 for current contact information.

1109 Public Information Coordination

Coordinated public information releases are preferred but not always possible. To the maximum extent possible, coordinated press and media releases/briefings will be conducted. If joint press releases are not possible, the respective public affairs officers will coordinate to the maximum extent possible to ensure information released separately is consistent and accurate.

Canada
Refer to Canadian Coast Guard Marine Spills Contingency Plan-National Chapter, Section 4.3 and Pacific Chapter, Section 3 and Section 2-Operational Annex.

United States
Refer to the NWACP Joint Information Center Manual developed for the National Response Team by the USCG Public Information Assist Team.

Appendix 1: Contact List

Canadian Coast Guard

Assistant Commissioner Canadian Coast Guard Western Region 25 Huron Street, Victoria, B.C. V8V 4V9 Ph. 250 – 480 – 2765 Fax. 250 480 2702	Regional Director of Marine Programs Canadian Coast Guard Western Region 25 Huron Street Victoria, B.C. V8V 4V9Ph. 250-480-2711Fax 250 480 2702
Superintendent Environmental Response Canadian Coast Guard Western Region 4260 Inglis Drive Richmond, B.C. V7B-1L7 Ph. (250)480-2722 Fax. (250)480-2702 Cell. (604) 340-1954	Senior Response Officer Environmental Response Canadian Coast Guard Sea Is. Base 4260 Inglis Drive Richmond, B.C. V7B-1L7 Ph. (604) 270- 4387 Fax. (604) 270-7349 Cell. (604) 816 7432
Senior Response Officer Environmental Response Canadian Coast Guard 25 Huron St. Victoria, B.C. V8V 2J8 Ph. (250) 480-2748 Fax. (250) 363-3076 Cell. (250)361-5149	Canadian Coast Guard Regional Operations Centre Ph. (250)413-2800 1 800 889 8852 Fax. (250)413-2810

United States Coast Guard

District Commander United States Coast Guard Thirteenth Coast Guard District 915 Second Avenue Room 3590 Seattle, WA 98174-1067 Ph. (206) 220-7001 Fax. (206) 220-7009	Incident Management & Preparedness Advisor United States Coast Guard Thirteenth Coast Guard District 915 Second Ave. Room 3408 Seattle, WA 98174-1067 Office: (206) 220-4662 Fax: (206) 220-7342
Chief, Response Division United States Coast Guard Thirteenth Coast Guard District 915 Second Avenue Room 3506 Seattle, WA 98174-1067 Ph. (206) 220-7256 Fax. (206) 220-7342	District 13 Command Center (Jackson Federal Bldg, Seattle, WA) 915 Second Ave Seattle, WA 98174-1067 Ph. (206) 220-7001 Fax (206) 220-7009

Canadian JRT Members

Superintendent Environmental Response Canadian Coast Guard Western Region 4260 Inglis Drive Richmond, B.C. V7B-1L7 Ph. (250)480-2722 Fax. (250)480-2702 Cell. (604) 340-1954	Environment Canada Manager, Enforcement Division Pacific and Yukon Region 201-401 Burrard Street, Vancouver B.C. V6C-3C4 Ph. (604) 666-0064 Fax (604) 666-7463
British Columbia Ministry of Environment A/Manager, Hazard Management BC Ministry of Environment P.O. Box 9342, Stn Prov Govt Victoria, BC V8W 9M1 Tel: (250)387-9950 cell: (250)686-3705 FAX: (250)953-3856	Transport Canada – Marine Safety Regional Director 602 - 800 Burrard St. Vancouver, B.C. V6Z 2J8 Ph.# (604)-666-5470 Fax # (604)-666-5444
Canada Board Services Agency Superintendent, Immigrations Customs Operations Victoria 107-816 Government St. Victoria, B.C. V8W 1X1 Ph. (250) 363-3339 Fax (250) 363-3179	Canada Board Services Agency Superintendent, Immigrations 200 Highway #99 Surrey, B.C. V3S-9N7 Ph. (604) 541-5623 Fax (604) 541-5621

United States JRT Members

United States Coast Guard Chief, Response Division United States Coast Guard Thirteenth Coast Guard District 915 Second Avenue Room 3506 Seattle, WA 98174-1067 Ph. (206) 220-7256 Fax. (206) 220-7342 24 Hr (206) 220-7001	U. S. Customs and Border Service Area Port Director 9901 PACIFIC HIGHWAY BLAINE, WA 98230 Ph 360-332-5771 Fax 360-332-4701
NOAA Emergency Response Division 7600 Sand Point Way N.E. Seattle, WA 98115-0070 Ph. (206) 526-6317 Fax (206) 526-6329 24 Hr (206) 526-4911	Commander (FOSC/COTP) Sector Puget Sound United States Coast Guard 1519 Alaskan Way South Seattle, WA 98134-1192 Ph. (206) 217-6001 Fax (206) 217-6348 e-mail: sectorpugetsoundcc@uscg.mil
Federal Emergency Management Agency FEMA Region X National Preparedness Division Technical Hazards Program Specialist 130-228th Street SW Bothell, WA 98021 Ph (425)-487-4686 24 Hr (425) 487-4600 Fax (425) 487-4777 24 Hr Fax (425)) 487-4404	Department of Labor (OSHA) Assistant Regional Administrator U.S. Department of Labor, OSHA 1111 Third Avenue, Suite 715 Seattle, WA 98101-3212 Ph (206) 553-5930 24 Hr (800) 321-6742 Fax (206) 553-6499
Environmental Protection Agency Manager, EPA Emergency Response Program U.S. Environmental Protection Agency 200 Sixth Avenue, Mailcode ECL-116 Seattle, WA 98101 Ph (206) 553-1674 24 Hr (206) 553-1263 Fax (206) 553-0175	Department of the Interior Regional Environmental Officer U.S. Department of the Interior 500 N. E. Multnomah Street Suite 356 Portland, OR 97232-2036 Ph (503) 231-6157 24 Hr (503) 807-3829 (cell) 24 Hr (503) 684-4082 (primary) Pager none Fax (503) 231-2361

State of Washington Spill Prevention, Preparedness, and Response Acting Program Manager Washington Department of Ecology M/S PV-11 Olympia, WA 98504-8711 Ph (360) 407-7450 24 hour (800) 258-5990 Fax (360) 407-6902	General Services Administration (GSA) Deputy Regional ER Coordinator General Services Administration (FZM) 400 15th Street S.W. Auburn, WA 98001-6599 Ph (253) 931-7024 Fax: (253) 931-7389
Department of Defense (United States Army) Mr. Paul E. Peloquin U.S. Army Engineers North Pacific Division P.O. Box 2870 Portland, OR 97208-2870 Ph (503) 808-3887 Fax (503) 808-3904 E-mail: peloquin.e.paul@nwd01.usace.army.mil	Department of Energy Emergency Preparedness Specialist U.S. Department of Energy P. O. Box 550 (A6-35) Richland, WA 99352 Ph (509) 376-8519 24 Hr (509) 373-3800 Fax (509) 376-4485

Canada Border Services Agency

Superintendent, Immigrations 200 Highway #99 Surrey, B.C. V3S-9N7 Ph. (604) 541-5623 Fax (604) 541-5621	Customs Operations Sidney Port of Sidney 101-1640 Electra Blvd. Sidney, B.C. V8L-5V4 Ph. (250) 363-6644 Fax (250) 363-6764 Superintendent ph (250)363-6817
Customs Operations Victoria 107-816 Government Street Victoria, B.C. V8W 1X1 Ph. (250) 363-3339 Fax (250) 363-3179	Superintendent, Customs 200 Highway #99 Surrey, B.C. V3S-9N7 ph. (604)535-9754 Fax (604) 541-5621
Commercial Operations #28, 176 Street Surrey, B.C. V3S-9R9 ph. (604) Fax. (604) 538-8961 attn “Administrative Supervisor”	

U.S. Bureau of Customs and Border Protection (Customs)

U.S. Bureau of Customs and Border Protection (Customs) Port Director 2202 Port of Tacoma Rd. Tacoma, WA 98421 Ph. (206) 593-6338 Fax: (206) 593-6351	U.S. Bureau of Customs and Border Protection (Customs) Area Port Director 9901 Pacific Highway Blaine, WA 98230 Ph. 24 hr. (360) 332-5707 Fax: (360) 332-2339

Appendix 2: Customs/Immigration Checklist - United States into Canada

Item #	Action Items prior to leaving for the Border.	
1	Has the JCP-CANUSPAC Annex been activated?	
2	Has the OSC requested personnel or equipment assistance from the U.S. into Canada?	
3	Has the Canadian Coast Guard informed the Canada Boarder Services Agency at the port of entry that the JCP been activated and US equipment and/or personnel will be crossing the border?	
4	Has the USCG or US contractors forwarded their personnel and equipment lists to the CCG?	
5	Are the lists of personnel and equipment complete?	
6	Have these lists been forwarded to the Canada Board Services Agency at the border crossing point?	

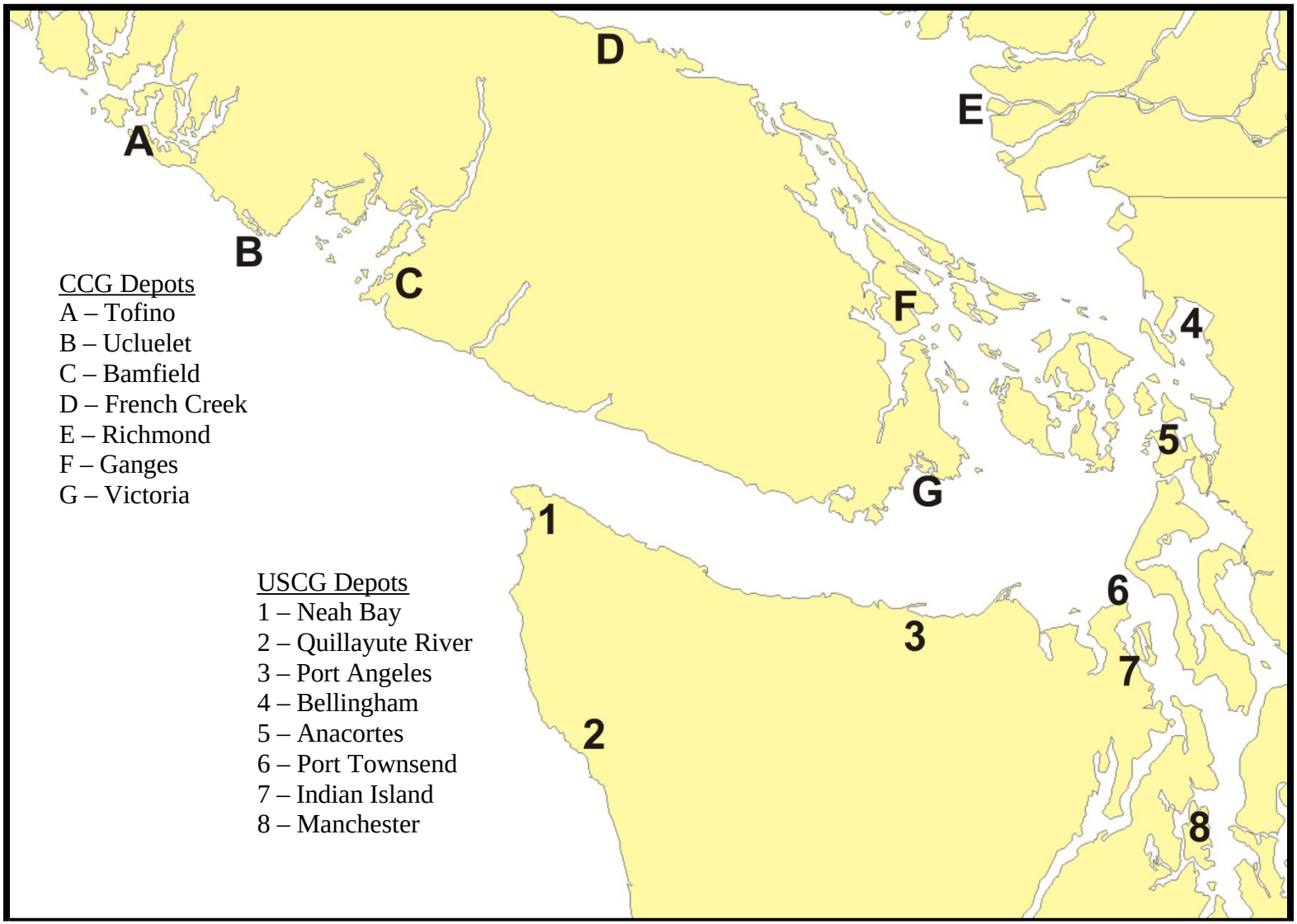
Item #	Action Items while en route to the Border.	
1	Prior to leaving the U.S., ensure a duplicate copy of the personnel and equipment list accompanies each vehicle or vessel.	
2	Ensure each vehicle or vessel has contact information for the CCG in case there are problems at the border.	
3	Upon arriving at the border, stop at the U.S. side of the border and have the lists stamped.	
4	If there is a long back-up at the border, call your CCG contact who will assist in expediting you through the line.	
5	Present the lists to the Canada Boarder Services Agency at the border. If there is a problem, ask for the Senior Officer or Superintendent.	
6	If a problem continues, contact the CCG personnel who requested the equipment or personnel?	
7	Retain copies of the lists for re-entry into the U.S.	

Appendix 3: Customs /Immigration Checklist - Canada into United States

Item #	Action Items prior to leaving for the Border.	
1	Has the JCP-CANUSPAC Annex been activated?	
2	Has the OSC requested personnel or equipment assistance from the Canada into U.S.?	
3	Has the United States Coast Guard informed the U.S. Customs and Boarder Protection Service at the port of entry that the JCP been activated and Canadian equipment and/or personnel will be crossing the border?	
4	Has the CCG or Canadian contractors forwarded their personnel and equipment lists to the USCG?	
5	Are the lists of personnel and equipment complete?	
6	Have these lists been forwarded to U.S. Customs Boarder Protection Service at the border crossing point?	
7	Time permitting, complete an I-94 form for each individual entering the U.S.	

Item #	Action Items while en route to the Border.	
1	Prior to leaving the Canada, ensure a duplicate copy of the personnel and equipment list accompanies each vehicle or vessel.	
2	Ensure each vehicle or vessel has contact information for the USCG in case there are problems at the border.	
3	Upon arriving at the border, stop at the Canadian side of the border and have the lists stamped.	
4	If there is a long back-up at the border, call your USCG contact who will assist in expediting you through the line.	
5	Present the lists to Inspector at the border with the list. If there is a problem, ask for the Senior Officer or Superintendent.	
6	If a problem continues, contact the USCG personnel who requested the equipment or personnel?	
7	Retain copies of the lists for re-entry into Canada.	

Appendix 4: Response Equipment Depots within CANUSPAC



Appendix 5: CANADA-U.S. RESPONSE EQUIPMENT AND PERSONNEL CROSS-BORDER DEPLOYMENT WORKSHEETS

Canada-US Joint Marine Pollution Contingency Plan

Emergency Deployment of _____***Vessels***

(company/agency name)

Date: **Deployment Destination:**

_____Contact Person: **(company/agency name)**
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

Qty.	Description/Name	USCG Document #	State Registration # (requires hull #)	Designate Transit Mode (by road or (by water)	Hull #

Canada-US Joint Marine Pollution Contingency Plan

Emergency Deployment of _____***Equipment***

(company/agency name)

Date: **Deployment Destination:**

_____ Contact Person: **(company/agency)**
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

Qty.	Description	Model #	Serial #

*Add consumables to lists to account for what will not be returning, e.g. sorbent

Canada-US Joint Marine Pollution Contingency Plan

Emergency Deployment of _____***Vehicles***

(company/agency name)

Date: **Deployment Destination:**

_____Contact Person: **(Company/agency name)**
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

Qty.	Description	VIN # or Serial #	State License #

Canada-US Joint Marine Pollution Contingency Plan

Emergency Deployment of _____***Personnel***

(company/agency name)

Date: **Deployment Destination:**

_____ Contact Person: **(company/agency name)**
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

NAME	Job Assignment	DOB	Passport # (Not required to be listed for Canadian or U.S. Citizens*)	Date Depart U.S.	Expected Date Return To U.S.

*Passport, Nexus Pass or enhanced drivers license required for entry into either country by U.S. or Canadian Citizens

Appendix 6: CANUSPAC WILDLIFE RESPONSE GUIDELINES

Canada - United States
Joint Marine Pollution Contingency Plan
CANUSPAC Annex

Wildlife Response Guidelines

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I. Introduction

A. Background and Objectives

The Pacific Coast Geographic Annex (CANUSPAC) of the Canada - US Joint Marine Pollution Contingency Plan applies to the international boundary between British Columbia and Washington State which comprises the waters of the Juan de Fuca region on the Pacific Coast as shown in Figure 1, below.

Figure 1: CANUSPAC Area of Coverage

The Canada/U.S. border runs through the southern part of the Strait of Georgia, which lies between Vancouver Island and the British Columbia mainland. The Canadian Gulf Islands and the U.S. San Juan Islands mark the southern end of the Strait of Georgia. The main channels to the south are Haro Strait and Rosario Strait, which connect the Strait of Georgia to the Strait of Juan de Fuca.

Boundary Bay is situated on the border between British Columbia and the State of Washington, and is bounded on the north by the municipality of Delta. Along the eastern shore is the City of Surrey; further south-east are White Rock and the Semiahmoo First Nation's reserve in British Columbia and the City of Blaine in Washington State.

Point Roberts is a U.S. exclave on the southernmost tip of the Tsawwassen Peninsula, west of Boundary Bay. Point Roberts can be accessed directly from Washington State by air or sea, but can only be reached by land by traveling through British Columbia.

Haro Strait - often referred to as the Haro Straits - is one of the main channels connecting the Strait of Georgia to the Strait of Juan de Fuca. It separates Vancouver Island and the Gulf Islands in British Columbia from the San Juan Islands of Washington State.

The Strait of Juan de Fuca extends east from the Pacific Ocean between Vancouver Island, British Columbia, and the Olympic Peninsula, Washington, to Haro Strait, San Juan Channel, Rosario Strait and

Puget Sound. The boundary between the Strait of Juan de Fuca and the Pacific Ocean, to the west, is formed by a line between Cape Flattery and Tatoosh Island, Washington, and Carmanah Point (Vancouver Island), British Columbia. The northern boundary of the Strait follows the shoreline of Vancouver Island from Carmanah Point to Gonzales Point, then follows a continuous line east to Seabird Point, British Columbia, Cattle Point (Washington), Iceberg Point and Point Colville (Lopez Island) and then to Rosario Head on Fidalgo Island. The eastern boundary of the Strait runs south from Rosario Head across Deception Pass to Whidbey Island, then along the western coast of Whidbey Island to Point Partridge, then across Admiralty Inlet to Point Wilson (Quimper Peninsula). The northern coast of the Olympic Peninsula forms the southern boundary of the Strait. In the eastern entrance to the Strait, the Race Rocks Archipelago is located in the high current zone half way between Port Angeles Washington State, and Victoria, British Columbia.

The CANUSPAC area provides important seasonal habitat for significant numbers of birds, marine mammals, and terrestrial species. Many of these wildlife species also help support subsistence, hunting, and tourism.

Many birds migrate through or breed in the CANUSPAC area, including waterfowl, seabirds, shorebirds, and various raptors. While the majority of birds are in the area during the spring, summer, and fall, both waterfowl and bald eagles overwinter. The seabird colonies in the area range in size from several hundred to several thousand birds. Notable seabird colony species include species of alcids and cormorants.

The following marine mammals may be present in the CANUSPAC area throughout the year: sea otters, porpoises, harbor seals, sea lions, and killer whales (including the endangered "Southern Resident" whales). Several species of baleen whales, including grey and humpback whales (threatened), also migrate through the area and stop to feed during the spring and summer. Terrestrial wildlife in the area that use the interface between the marine and terrestrial environment is also vulnerable to discharges of petroleum products, with species including bears, deer, elk, and wolves.

The number of individuals and species affected will depend on several variables, including the location and size of the spill, the characteristics of the oil, weather and water conditions, types of habitats affected, and the time of year the spill occurs. Wildlife may come into contact oil on the water surface or along shorelines, intertidal areas, and marshes during an oil spill that affects offshore or coastal areas.

The purposes of the *CANUSPAC Wildlife Response Guidelines* are to minimize wildlife exposure to oil and to outline policies and procedures for capturing and treating selected wildlife species that become oiled. The *CANUSPAC Wildlife Response Guidelines* will be used following the activation of the CANUSPAC annex to help facilitate coordinated, timely, and appropriate wildlife protection activities in the CANUSPAC trans-boundary area.

B. Wildlife Resources Addressed

The *CANUSPAC Wildlife Response Guidelines* provide information on birds and mammals in the CANUSPAC 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. Although this document does address terrestrial mammals, the *CANUSPAC Wildlife Response Guidelines* are focused on migratory birds and marine mammals because of their susceptibility and vulnerability to oiling, their movement across the CANUSPAC area, and the specialized

response methods needed to handle these animals. Appendices 1 and 2 identify Canadian and U.S. wildlife resource agencies that have management responsibility for selected wildlife in the CANUSPAC area.

Decisions regarding keeping unoiled terrestrial wildlife away from a spill (e.g., deterrence, hazing, or pre-emptive capture) and/or the capture and treatment of oiled terrestrial wildlife will be made on a case-by-case basis by British Columbia Ministry of Forests Lands and Natural Resources (BC MFLNRO) and Washington Department of Fish and Wildlife Service (WDFW) representatives for the geographic area under their respective jurisdiction. Wildlife protection strategies for terrestrial wildlife in the U.S. portion of the CANUSPAC area will follow the guidance provided in the Northwest Wildlife Response Plan (Section 9310) of the Northwest Area Contingency Plan.

Decisions regarding keeping unoiled pinnipeds and cetaceans away from a spill and/or the capture and treatment of oiled pinnipeds and cetaceans will be made on a case-by-case basis by Department of Fisheries and Oceans Canada (DFO) and U.S. Department of Commerce, National Marine Fisheries Service (NOAA Fisheries) representatives for the geographic area under their respective jurisdiction. Wildlife protection strategies for pinnipeds and cetaceans in the CANUSPAC area will follow the guidance provided within the Northwest Wildlife Response Plan (Northwest Area Contingency Plan).

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

- Control strategies - Control 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 countermeasures; in-situ burning; oiled carcass removal; and vessel/aircraft disturbance minimization.

- Deterrence strategies - Keep potentially-affected wildlife away from oiled areas through the use of deterrent or other techniques including, potentially, pre-emptive capture of un-oiled wildlife.

- Capture strategies - Capture and treatment of oiled wildlife.

C. *CANUSPAC Wildlife Response Guidelines* Organization

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

- **Introduction**
- **Assumptions**
- **Wildlife Resource Agency Notification and Coordination**
- **Sensitive habitats**
- **Wildlife Capture and Rehabilitation**
- **Birds**
- **Marine mammals**
- **Mammals**

The background and introductory section, which outlines the purpose and origin of the *CANUSPAC Wildlife Response 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 *CANUSPAC Wildlife Response Guidelines*. The "Wildlife Resource Agency Notification and Coordination" section provides information on the appropriate wildlife resource agency contacts for the CANUSPAC annex and how Canadian and U.S. wildlife resource agency representatives will coordinate wildlife response-related activities following activation of the CANUSPAC annex. The sections on birds and marine mammals provide information on the population and distribution of the species in the CANUSPAC 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 *CANUSPAC Wildlife Response Guidelines* are based on the following assumptions:

- **Response operations will follow the Incident Command System (ICS) structure in which the Wildlife Branch will be established under the Operations Section.**

- **Canadian and U.S. wildlife resource agency representatives, through the Wildlife Branch, will provide the CCG On-Scene Commander (OSC) and the USCG Federal On-Scene Coordinator (FOSC) with mutually agreed-upon protocols for removing oiled carcasses from the environment as well as with recommendations on whether and how to:**
  - **keep wildlife away from oiled areas (e.g., "hazing" or "deterrence");**
  - **initiate pre-emptive capture of unoiled sea otters; and/or**
  - **capture, stabilize, and treat oiled birds and/or sea otters.**

- **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 Sections 901 and 902 of the CANUSPAC. See Appendix 5 of the CANUSPAC Annex.**

- **Individuals conducting bird capture and treatment in British Columbia and in Washington will have appropriate training under currently established guidelines**

and procedures.

- **Public announcements regarding wildlife response recommendations and activities will be released through the CCG/USCG Joint Information Center.**

<u>Responder Liability.</u> If any U.S. responder (Federal, state, or private) crosses into Canada to work on an oil spill, the laws in Canada are such that each individual person can be held personally liable for anything that might go wrong during the response. This is true even if the individual is working under a PRFA from the U.S. FOSC.

III. Wildlife Resource Agency Notification and Coordination

A. Notification

Section 701 of the CANUSPAC identifies the circumstances under which the annex 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. The appropriate British Columbia Ministry of Environment/Ministry of Forests, Lands & Natural Resource Operations representatives will be notified (24/7) by EC Emergency Duty Officer. In the U.S., appropriate DOI and NOAA Fisheries representatives will be notified (24/7) by the USCG FOSC's representative. Appropriate WDFW representatives will be notified (24/7) by a Washington Department of Ecology representative. Canadian and U.S. wildlife resource agency contacts for the CANUSPAC area are listed in Appendices 1 and 2.

B. Coordination

As soon as practicable following their respective notification, 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.

Following activation of the CANUSPAC 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 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 CANUSPAC area will work through the Science Table providing timely advice to the Wildlife Branch of the Operations Section. Wildlife resource agency representatives for wildlife in the U.S. portion of the CANUSPAC area

will work in the Wildlife Branch of the Operations Section. Both Canadian and U.S. wildlife resource agency representatives will physically co-locate with their respective CCG and USCG counterparts as appropriate.

IV. Sensitive Habitats

Shoreline habitats have varying persistence characteristics and sensitivities to oiling due to differing substrates, plant life, water movement characteristics (tidal and wave action), and wildlife use. In general, marine areas such as estuaries, salt marshes, eelgrass and kelp beds, and stream mouths have high biodiversity values.

The Province of British Columbia has its entire marine shoreline mapped for Sensitivity to Oiling. The Shoreline Sensitivity maps are based on shoreline type, proximity to important habitat (e.g., seabird colonies), proximity to fish-bearing streams and herring spawn areas. At this time, pdf maps for a particular area are available from Carol.Ogborne@gov.bc or Aaron.McMillan@gov.bc.ca as part of the Coastal Resource Information program of GeoBritish Columbia.

In a similar fashion, the Washington State shorelines have been mapped and categorized as a part of the ongoing NOAA Environmental Sensitivity Index (ESI) mapping effort. ESI maps can assist planners and responders in identifying vulnerable locations, establishing protection strategies, and identifying cleanup strategies. Currently, NOAA ESI maps can be downloaded from the NOAA website (http://response.restoration.noaa.gov/maps-and-spatial-data/environmental-sensitivity-index-esi-maps.html).

V. Wildlife Capture and Rehabilitation

The appropriate wildlife resource agency(ies) will either conduct or assume oversight for all components of a wildlife pre-emptive capture and/or capture, as well as rehabilitation program(s). Wildlife agency representatives will determine if a species has special status (i.e., Species of Special Concern or candidate species) and if the species population status is of international, national, or regional significance. They will also determine whether a species is a subsistence resource. Activities should include estimating the percentage of the population affected and determining if effective rehabilitation of oiled animals has a high probability of success (i.e., anticipate good survival rate). Agency representatives should also estimate the cost of a wildlife capture and rehabilitation program and determine whether sufficient funding is available.

Wildlife resource agency representatives must consider whether wildlife capture and rehabilitation can be conducted safely (human and wildlife) and that appropriate resources and facilities are available or are developed. Rehabilitation facilities will conform to existing regulations and appropriate policies, and all releases will be conducted in consultation with appropriate authorities.

Wildlife Branch directors, trustee agency representatives, and wildlife veterinarians will develop euthanasia protocols as appropriate for each spill incident.

VI. Birds

A. General Considerations

1. Population and Distribution

Species of Concern: On the Washington side of the trans-boundary area, there are two species of particular concern: the Marbled Murrelet (Federally Threatened) and the Brown pelican (State of Washington endangered). The Marbled Murrelets are unique in that they nest in mature tracts of coastal forests and forage widely in both nearshore and offshore marine waters. Brown pelicans are abundant summer and fall residents and tend to form large flocks at river mouths, on coastal rocks and islands, and at the mouths of coastal estuaries and feeding in nearshore waters.

In addition to these threatened and endangered species, numerous other state and federal species of concern are also present in this area, including: bald eagle, Brant's cormorant, Cassin's auklet, common loon, common murre, golden eagle, northern goshawk, peregrine falcon, tufted puffin, and the western grebe. Historically, the common murre has been the species most impacted (numerically) by on-water oil spills in the region.

Wildlife within various parts of the trans-boundary areas are described below. Note that on the Washington side, these correspond to the geographic response planning areas. For additional information, refer to Chapter 6 within each of the respective geographic response plans (http://www.ecy.wa.gov/programs/spills/preparedness/GRP/index.html).

North Puget Sound

- ***Seabird*** nesting in this region is limited to a few colonies in the southern half of the region, with the most significant colonies occurring on Viti Rocks (south of Lummi Island) and Williamson Rocks (south end of Burrows Bay).
- This region supports some of the largest overwintering ***waterfowl concentrations*** in Washington, particularly in Padilla, Fidalgo, Samish, Lummi and Birch Bays and in Drayton Harbor.
- Concentrations of ***Marbled murrelets*** occur in the waters around Cypress Island and in the vicinity of Burrows Bay.
- ***Great Blue heron*** nesting colonies are associated with all major bays from Birch Bay south to Padilla Bay, with the Padilla Bay colony being one of the largest in Washington. The shallow waters of these bays are critical feeding habitat for herons.
- ***Bald eagles*** nest abundantly throughout the area and ***Peregrine falcons*** nest from Lummi Island south to Padilla Bay.

San Juan Islands

- Numerous ***seabird nesting*** **colonies** are scattered throughout the islands and Rosario Strait. The largest of these are located on the rocks and islands off the south shore of Lopez Island and on Sucia Island, Puffin Island, and several rocks off the south shore of Clark Island. ***Shorebirds,*** primarily Black Oystercatchers, nest in low concentrations throughout the islands
- This region is of year-round importance to feeding and resting ***marine birds***, including those from the nesting colonies on Protection Island. This area is also heavily used by wintering marine birds such as murres, loons, diving ducks and gulls. Some of the key concentration areas include Cattle Pass, southern Rosario Strait, the south shore of Lopez Island, and Speiden Channel.
- The San Juan Islands support the largest concentration of nesting ***Bald eagles*** in Washington, as well as a significant wintering population. Other sensitive nesting species of concern include ***Peregrine falcons*** and ***Great Blue herons***. All of these species forage in nearshore waters surrounding the islands.

Strait of Juan de Fuca

- Protection, Tatoosh, and Smith & Minor Islands are among the state's most important ***seabird nesting colonies***. Other, smaller, seabird breeding sites are scattered throughout the strait.
- Nearly the entire breeding population of Common murres from coastal Washington and northern Oregon transits through the strait in late summer, following the nesting season. Many of these birds remain to overwinter in the strait until the spring.
- Large numbers of ***waterfowl and shorebirds*** use the eastern bays of the strait as migration rest stops or wintering areas.
- Numerous ***Bald eagles*** nest along shorelines throughout the strait.

Admiralty Inlet

- ***Seabird concentrations*** can occur year-round in Admiralty Inlet and in the tide rips off areas like Possession Point and Point Wilson, with the greatest numbers present from fall through spring. The few ***seabird nesting colonies*** in this region are in the area around Port Townsend. ***Marbled murrelets*** occur in nearshore waters throughout the region.
- ***Waterfowl concentrations*** may be found throughout the region from fall through spring; especially in Kilisut Harbor, Deer Lagoon, and Cultus Bay.
- Many areas in Admiralty Inlet support large numbers of ***migrating and wintering shorebirds***. Chief among these are Crockett Lake, Hancock Lake, Deer Lagoon, and Cultus Bay (all on Whidbey Island).
- ***Bald eagles*** and ***Great Blue herons*** nest in abundance throughout the region and forage in intertidal and nearshore waters.

Outer Coast Washington

- ***Seabirds,*** numbering in the tens of thousands, nest along the outer coast from Point Grenville north to Tatoosh Island off Cape Flattery- primarily on offshore rocks and islands. The most numerous species among these are auklets, storm petrels, murres, gulls and cormorants. ***Marbled murrelets*** are unique in that they nest in mature tracts of coastal forests. Nesting birds and their young forage widely in both nearshore and offshore waters. Hundreds of thousands other seabirds pass along Washington's coast during migrations or are seasonal residents in offshore waters or along coastal beaches. ***Brown pelicans*** are abundant summer and fall residents, tending to form large flocks at river mouths, on coastal rocks and islands, and at the mouths of coastal estuaries and feeding in nearshore waters.
- ***Shorebird*** abundance on the outer coast is greatest from mid-August through mid-May, mostly outside of the trans-boundary area along the sandy beaches from Grays Harbor south

to the Long Beach Peninsula. Shorebird nesting on the outer coast is limited to ***Snowy plovers*** [FT], which nest near the mouths of Grays Harbor and Willapa Bay, and Black Oystercatchers that nest on the rocky coastlines north of Point Grenville.

- ***Bald eagles*** and ***Peregrine falcons*** are common nesters along the coast north of Point Grenville. Migrant and winter resident Peregrine falcons occur along all outer coast beaches.

North Central Puget Sound

- Concentrations of ***migratory and wintering waterfowl*** within this region may exceed 100,000 birds during peak periods, with southern Skagit Bay, Port Susan and the Snohomish River estuary supporting the largest concentrations. Port Susan supports the largest ***migratory and wintering shorebird*** concentrations in Washington.
- Apart from the gull and tern nesting on Jetty Island in Everett, ***seabird nesting*** in this region is primarily characterized by small, widely scattered nesting sites. ***Marbled murrelets*** occur throughout the region, especially in Saratoga Pass, southern Port Susan and in the vicinity of Deception Pass.
- ***Bald eagles*** and ***Great Blue herons*** nest throughout the region and are present year-round. ***Peregrine falcons*** and ***Osprey*** also nest in this region, with especially high nesting concentrations of Osprey at the mouth of the Snohomish River. All of these species routinely forage in intertidal and nearshore waters.

West Coast Vancouver Island

- ***Seabirds*** concentrate off the southwest coast of Vancouver Island, particularly Swiftsure Banks during summer (May – August). Common Murre, Rhinoceros Auklet, Tufted Puffin, Cassin's Auklet and Leach's Storm Petrel feed in areas of up-welling offshore. Northern Fulmars are common around factory ships during late summer and early fall. Shearwaters are also abundant in late spring, early summer, and again from September through mid-October. California Gulls can be seen between May and November, but progressively become more abundant as the summer and fall advance. Other birds recorded here in high numbers include: Herring, Thayers and Glaucous-winged gulls, Black-legged Kittiwakes, jaegers, phalaropes, and other procellariids.
- The largest ***seabird colony***, supporting Leach's Storm Petrel, Cassin's Auklet, Rhinoceros Auklet, Pelagic Cormorant, Glaucous-winged Gull and Pigeon Guillemots is at Seabird Rocks south of Barkley Sound.
- ***Marbled Murrelets*** feed in nearshore waters (within 500 meters from shore all along the west coast of Vancouver Island. Concentrations of Marbled Murrelets occur during breeding season (April-August) off Carmanah Point and Cape Beale in high densities and occur in moderate densities all along the west coast. During winter Marbled Murrelets may move into the sheltered waters of Alberni Inlet.
- ***Wintering marine birds*** including loons, grebes, and cormorants, and waterfowl including scoters, goldeneye, Harlequin Ducks and mergansers occur in moderate numbers along the west coast. During late March these birds tend to move off towards breeding sites.
- ***Trumpeter Swans*** winter in Port Renfrew.
- ***Shorebirds*** concentrate in April along sandy beaches as they migrate north to breeding grounds. Turnstones, plovers and Black Oystercatchers occupy rocky shores during winter, and Black Oystercatchers breed on small rocky islands during summer.
- ***Bald Eagles*** nest at shoreline sites and forage regularly in nearshore environments all year round

Gulf Islands in the Strait of Georgia

- ***Seabird colonies*** are limited to Pelagic Cormorant, Double-crested Cormorant, Brandt's Cormorant, Glaucous-winged Gull and Pigeon Guillemot. The most important seabird colony is Mandarte Island off Sidney, while other cormorant colonies at Arbutus Island, Gabriola and Galiano Island and Pennelukut have smaller numbers of nests.
- ***Wintering marine birds***, including gulls, loons, grebes, cormorants, and wintering ***waterfowl***, including Mallards, widgeon, scoters, goldeneye, Harlequin Ducks and mergansers occur in moderate numbers throughout the Gulf Island waters. Around April these birds tend to move off towards inland breeding sites. Concentrations of gulls, diving ducks and Brandt's Cormorants occur with Pacific Herring spawn from February through April.
- Active Pass supports nationally, continentally or globally significant populations of Pacific Loon and Brandt's Cormorant (in winter), and Bonaparte's Gull (on migration).
- ***Marbled Murrelets*** are known to use the area around Sidney in winter.
- ***Shorebirds*** concentrate off Sidney Spit during the spring northward and late summer southern migration. Turnstones, plovers and Black Oystercatchers occupy rocky shores during winter, and Black Oystercatchers breed on small rocky islands during summer.
- ***Bald Eagles*** nest at shoreline sites and forage regularly in nearshore environments all year round.
- ***Great Blue Herons*** nest in moderate to large colonies in the Strait of Georgia. Important feeding areas during the March to August breeding season are the Sooke Basin, Portage Inlet, Esquimalt Harbour, Sidney Spit, Saanichton Bay, Saanich Inlet, Cowichan Bay, Chemainus Estuary, Ladysmith Harbour and Nanaimo Estuary. In winter, herons forage in low densities along all shorelines.

Strait of Juan de Fuca in Canada

- The shorelines of Race Rocks and the Chain Islands are important ***seabird nesting*** sites as well as wintering and resting sites for migratory waterbirds including cormorants, Harlequin Ducks, Heerman's Gulls, grebes, scoters and mergansers.
- The waters of the Strait of Juan de Fuca are migration pathways for Common Murres, Ancient Murrelets, Brant Geese and phalaropes.

Fraser River Delta

- ***Shorebirds*** *(including globally significant numbers of Western Sandpiper)* concentrate on Sturgeon Bank, Roberts Bank and Boundary Bay during spring (April) northward and late summer (July-August) southern migration. Dunlin, Black-bellied Plovers and other shorebird species overwinter on the Fraser Delta in large numbers.
- Concentrations of ***migratory and wintering waterfowl*** within this region may exceed 100,000 birds during peak periods (October-April) with Sturgeon Banks, Roberts Bank, and Boundary Bay supporting the largest concentrations. In Burrard Inlet, marine birds and waterfowl, including Western Grebe, Barrow's Goldeneye, and Surf Scoter winter here in globally significant numbers, with high counts ranging (up to 15K) birds.
- Pacific Black Brant (approximately 3K) overwinter along the eelgrass beds on Roberts Bank and Boundary Bay.
- Wrangel Island Snow Geese (50-100K) use the intertidal marshes of Sturgeon Bank, Roberts Bank, and Boundary Bay between October and April.
- Great Blue Heron nest in moderate to large colonies on the Fraser Delta. Roberts Bank, Boundary

Bay and Sturgeon Banks all provide important feeding areas in summer. Additional colonies in English Bay and Burrard Inlet.

- Raptors including Short-eared Owl, Snowy Owl, Peregrine Falcon use the Fraser Delta marshes and foreshore.

2. Potential Oil Spill Impacts

Many birds that come into contact with oil may die before they can be captured, due to toxic effects from ingested 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, efforts should be made to prevent birds from becoming oiled.

Exposure to oil can cause both individual and population level effects, including acute mortality, reduced reproduction, reduced survival, and habitat loss and degradation, and diminished food populations. Birds may be directly exposed to oil through oiling of plumage and eggs, ingestion of oil during preening, ingestion of oiled prey, absorption, and inhalation of oil through the skin or egg. Birds 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. Birds coated with oil are physically impaired to the extent that they can become unable to fly or forage. Oil clogs the feathers, leading to ingestion of oil from attempting to preen, hypothermia stress and drowning from reduced buoyancy. Stress is worsened when oiled birds increase their metabolic rate to counteract decreasing body temperature. 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. Population impacts are dependent not only on the numbers of individuals present, but also the behavior and other life history characteristics of each species. These factors include distribution, seasonal abundance, foraging and breeding behavior, and proportion of time spent on water.

Although all bird species have the potential to be impacted by oil spills, species exhibit different levels of susceptibility to oiling depending largely on their behavior. Birds that spend most of their time on the water (e.g. alcids, cormorants, loons, and sea ducks) are highly susceptible to oiling during oil spills to water and to subsequent hypothermia. Birds which spend less time on the water (e.g. gulls, kittiwakes, and pelagic species) are proportionately less likely to be impacted. In general, those species that are terrestrial-based (e.g. raptors, shorebirds, etc.) are the least likely to be impacted by spills. Birds also tend to concentrate in different areas depending on the species and season.

<u>Sensitive Bird Groups</u>

Many field and laboratory studies have demonstrated the differences in the effects of oil on various groups of birds. Several indices have been developed to quantify the factors influencing the vulnerability of each species, the Oil Vulnerability Index (OVI) of King and Sanger (1979) and Camphuysen (2006) and the Bird Oil Index of Speich et al. (1991). These indices and other literature can be used to generate the relative sensitivity for each group of species, with emphasis on marine birds. This information is less relevant for terrestrial species; however, the same principles can be used to assess the sensitivity of birds to terrestrial conditions. The following bird groups and vulnerabilities are adapted from the *Guidance Document for Natural Resource Damage Assessment Under the Oil Pollution Act of 1990, the Damage Assessment Remediation and Restoration Program, NOAA (1996)*. Note that these rankings are general guidelines. Actual conditions will dictate how birds are affected by a specific incident.

Diving Pelagic Seabirds (Alcids)

- Alcids are considered to be the most vulnerable of all bird groups to oil. They form large flocks and spend most of the time floating on cold, offshore waters. For incidents in their habitats, alcids usually comprise the largest fraction of birds directly killed by oil.
- Large-scale mortality of eggs is likely because alcids form large breeding colonies in open marine settings.
- There can be long-term impacts on reproduction because of irregular cycles in breeding success, nesting abandonment and mate switching by oiled adults. Various effects on eggs and chicks ultimately lead to lower survival rates, lower prey availability, and social disruptions at colonies that affect timing and success of egg-laying.

Waterfowl (Diving ducks, dabbling ducks, brant)

- Direct mortality from exposure to floating slicks can be high, especially during incidents involving persistent oils and when large numbers of birds are concentrated in migration and overwintering areas. For most coastal incidents, diving ducks are at greatest risk because of their preference for nearshore marine waters. In comparison, dabbling ducks prefer shallow, freshwater habitats with a reduced risk of an incident.
- Direct mortality of oiled eggs can occur but is less frequent because adults and nests are dispersed during the breeding season.
- Oiled but surviving birds often experience behavioral and physiological problems that lead to reduced reproduction from abandoned nesting activities, reduced courtship behavior, and disrupted egg-laying and incubation cycles. These responses can result from oil ingestion during preening of oiled plumage.
- Reproductive failure can also result from ingestion of oil-contaminated prey especially for those species (e.g., harlequin ducks) that feed primarily on intertidal invertebrates.

Diving Coastal Birds (Pelicans, loons, grebes, cormorants)

- Direct mortality from contact with floating slicks can be high because these birds regularly roost in moderate-sized flocks on nearshore coastal waters and they dive into the water to feed.
- Colonial nesting species (pelicans, cormorants) are more vulnerable than non-colonial nesters because they concentrate in breeding colonies.

Diving Pelagic Seabirds (Albatrosses, petrels, fulmars, shearwaters, skuas, jaegers)

- These birds are extremely reliant on open-water marine habitats for feeding and roosting, making them susceptible to incidents in these settings. They scatter over large areas; however, they may congregate in large rafts.
- There have been numerous studies documenting many reproductive effects for seabirds from external oiling and oil ingestion, including colony abandonment and mate switching, reduced laying and incubation of eggs, egg and chick rejection and desertion, and low chick growth rates

Gull and Terns

- These species are usually oiled in lower proportions to the exposed populations because they are readily able to avoid oil. Gulls in particular are adaptable, opportunistic feeders, and prolific breeders.

Shorebirds (Sandpipers, plovers, turnstones, phalaropes)

- Direct mortality rates are generally low for shorebirds because they spend very little time in the water. Phalaropes are the exception because they winter on the open ocean where they behave more like diving pelagic seabirds.
- Sublethal effects from either reduced or contaminated prey are more likely for shorebirds because they feed in intertidal habitats where oil strands and persists. For species which form very large migrating flocks, loss of critical forage areas during migration could cause high mortalities.

Raptors (Bald eagles, osprey, peregrine falcons)

- Raptors become oiled primarily via consumption of oiled prey, particularly eagles and falcons that may take oiled, disabled birds.
- Reproductive failures can be caused by oiling of eggs as well as disturbance from shoreline cleanup operations.

Wading Birds (Herons, bitterns, rails)

- Direct mortality of wading birds is usually low because they wade in shallow, sheltered waters to feed. However, their plumage can become contaminated by walking through oiled vegetation.
- Indirect effects on reproduction can occur from loss of prey, causing hatchling starvation, particularly for species unable to shift to alternative foraging sites.

Sensitive Bird Habitats

If possible, the following types of areas where birds concentrate should be considered priorities for protection following an oil spill:

- **Breeding 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 Tatoosh, Protection, Smith, and Minor Islands in Washington State during the summer when thousands of birds may be at their respective colonies.**

- **Major bird 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 a given region. Feeding areas shift with the tides and seasons. Some seabirds, such as storm-petrels, are nocturnal feeders.**

- **Wintering areas of marine birds and waterfowl. These include near-shore waters of Washington State, particularly in the areas of the larger, more protected bays and estuaries. Concentrations of birds vary during the winter.**

In addition to the nearshore waters, other coastal habitats are important to these species as foraging and

resting areas. These areas, such as marshes, sloughs, eelgrass and kelp beds, and estuaries, are sensitive to oil contamination and should be protected if they are at risk from oil contamination, even when no birds are present. See the appropriate NWACP GRP (Chapters 4 & 6 for additional information on resources at risk and pre-defined protection strategies in Washington State.)

B. Response Strategies

1. Control Strategies

Decisions regarding control strategies are made by the CCG OSC and the USCG FOSC, and their respective Unified Commands, with input from wildlife resource agency representatives and other appropriate parties. In the event control strategies are proposed in locations in Washington where migratory birds listed as threatened and/or endangered under the Endangered Species Act (ESA) may be present, the FOSC will engage in immediately technical consultation with USFWS any time the FOSC is considering operations/tactics that could affect listed species or their habitat. For additional information, see the "Inter-Agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Special Act" (ESA MOA) at http://www.nmfs.noaa.gov/op/pds/documents/02/110/02-110-17.pdf .

a. Mechanical Recovery and Chemical Countermeasures

The ideal response to protect birds from an oil spill is to prevent the oil from reaching areas where birds are concentrated. This may be accomplished by recovering oil using mechanical means (i.e., booms and skimmers) for oil on water. Booms and skimmers are typically the preferred response technique to remove oil on the water surface near concentrations of birds, as these tactics are less likely than alternatives to cause impacts to nearby wildlife. If mechanical means of on water oil recovery are deemed insufficient to protect birds and other natural resources, and where environmental considerations allow and authorization is given, alternative response tactics/techniques such as *in situ* burning or application of chemical dispersants may be used. In evaluating the trade-offs of using these alternative response techniques, potential impacts on birds and other wildlife should be considered, such as risk of exposure of bird concentrations (especially nesting colonies) to smoke plumes from in-situ burning or exposure of diving birds to dispersed oil and dispersants in the water column. Spraying dispersants directly into concentrations of birds or other wildlife near or adjacent to a targeted oil slick should be avoided. Also, dispersants should only be applied in areas with adequate water depth (and far enough from shore) to ensure that sufficient dilution of the oil/dispersant mix has occurred. In the waters in the Washington region, as a general rule, dispersants may only be applied in waters deeper than sixty feet (See NWACP). Under the Canada Environmental Protection Act use of dispersants are illegal and are not permitted.

It is highly recommended that consultations take place between the Wildlife Branch, the Environmental Unit, and the Operations Section prior to any operational decision being made regarding oil recovery/removal operations that would take place in the vicinity of wildlife concentration areas.

b. Oiled Carcass Recovery

The primary purpose for removing oiled wildlife carcasses from the environment as soon as possible is to help prevent "secondary" contamination of scavengers (e.g. raptors and foraging mammals). This secondary contamination may occur through (1) ingestion of oily carcasses and/or (2) physical contact with oil on carcasses by unoiled feathers, fur, and/or skin. Oiling of eggs and young animals can also

occur either through the introduction of carcasses into nests/dens by foraging adults.

The collection of oiled wildlife carcasses may also serve an additional purpose during a spill response – that of supporting natural resource damage assessment (NRDA) efforts in the U.S. that may be underway or that may occur later. Because the information associated with carcasses may be used for law enforcement, scientific, and/or natural resource damage assessment purposes, if any information is to be collected for this purpose, then it should be done in a such a manner that protects the integrity of any samples and data. Appropriate Canadian and U.S. wildlife resource agency representatives will develop incident-specific carcass collection and storage protocols for approval by the CCG OSC and USCG FOSC and their UCs, respectively. At a minimum, however, oiled carcasses (along with their associated collection information) should be kept frozen and under locked control.

c. Vessel/Aircraft Disturbance Minimization

During a response to an oil spill, appropriate wildlife resource agency representatives will evaluate the potential for response activities to negatively affect birds, other wildlife, and/or their habitats. Canadian and U.S. wildlife resource agency representatives may recommend to the CCG OSC and the USCG FOSC and their UCs that response activities in or adjacent to sensitive species or areas in the CANUSPAC 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 and their UCs that agency on-site monitors accompany near-shore and/or shore-based activities to help eliminate or minimize and to monitor disturbance.

Overflight activities associated with oil spill response have the potential for causing unnecessary and illegal disturbance to bird species and terrestrial wildlife. To reduce disturbance and improve the chances for bird survival, appropriate Canadian and U.S. wildlife resource agency representatives will provide the CCG OSC and the USCG FOSC with recommendations on flight restriction zones and advisories to pilots. These advisories may request that operations remain at a certain distance from bird concentration areas and critical habitats, such as nesting areas. Wildlife resource agency representatives will request that copies of any advisories be sent by the CCG OSC to Transport Canada, Airspace Restriction, System Safety, and Civil Aviation, as well as 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 bird concentration areas and critical habitats, such as nesting areas. 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.

2. Deterrence 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 trans-boundary area. Therefore, the

CANUSPAC Wildlife Response Guidelines only contains information on permit requirements and equipment, materials, and/or personnel that could be shared across borders to conduct these activities. See Appendix 3a and 3b of these Wildlife Guidelines. The Northwest Wildlife Response Plan (Contained within the Northwest Area Contingency Plan) outlines the procedures that federal and state wildlife resource agency representatives in the Northwest Area (Idaho, Oregon, and Washington) and responsible parties must follow to initiate and implement a bird deterrence program. Any deterrence activities proposed for species that are listed as threatened and/or endangered under the ESA will be addressed via FOSC Section 7 consultation with USFWS. For additional information, see the ESA MOA.

3. Capture Strategies

Within the Washington part of the trans-boundary area, all wildlife rehabilitation activities will be conducted in accordance with the NWACP, under the direction of the USFWS or their designee. The wildlife branch of the operations section of the ICS will be established whenever impacted wildlife is observed or anticipated.

Any capture-related activities in Washington for species that are listed as threatened and/or endangered under the ESA will be addressed via FOSC Section 7 consultation with the USFWS. For additional information, see the ESA MOA.

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

- **The program will be managed jointly by USFWS and CWS representatives.**
- **The program will adopt the operational guidelines as well as the standard of care requirements of the U.S.'s Best Practices for Migratory Bird Care During Oil Spill Response (http://www.fws.gov/contaminants/Documents/best_practices.pdf).**
- **Joint oiled-bird-treatment facilities, with the required personnel support capability and facility infrastructure as deemed necessary by the Wildlife Branch Director for the spill scenario, may be located in either British Columbia or Washington.**
- **The release plan for rehabilitated birds will be developed by Wildlife Branch with approval by CWS, USFWS, British Columbia, and WDFW representatives.**

VII.. Marine Mammals

A. General Considerations

1. Population and Distribution

A total of 31 marine mammal species have been documented in the coastal waters of the Pacific Northwest, although many of these species occur infrequently or primarily inhabit offshore areas. Several pinniped species (harbor seal, California sea lion, Steller sea lion, and Northern elephant seal) and cetacean species (Harbor porpoise, Dall's porpoise, Killer whale, and Gray whale) inhabit near shore and inland waters. In addition, a reintroduced population of Northern sea otters has been established on the outer coast of Washington and British Columbia. All of these species could be impacted during an oil

spill but perhaps the most vulnerable to impacts, and likely to elicit the most urgent calls for response, are Southern Resident killer whales, transient killer whales and sea otters because of their small population sizes, distribution, and life history. Sections 9320.2.3 and 9320.2.4 of the NWACP address sea otters and killer whales in detail.

Sea Otters

Sea otters are almost exclusively aquatic; feeding, breeding, and pup rearing all occur in the near shore zone. Sea otters occupy a fairly small home range within an established population. They are gregarious and may concentrate in rafts of fewer than 10 to a few hundred individuals.

Sea otters can be found scattered along the outer coast of Washington and into the Strait of Juan de Fuca. Any oil spill that reaches the nearshore environment may impact sea otters. Early reconnaissance of potentially impacted sea otters should be completed as soon as possible.

In the United States, sea otters fall under the jurisdiction of the United States Fish and Wildlife Service, and are listed as Endangered on Washington's Species of Concern (SOC) List, and are protected by the Marine Mammal Protection Act. Wildlife Branch recommendations to implement sea otter response actions will be fully coordinated with the U.S. Fish and Wildlife Service and the Washington Department of Fish and Wildlife. Within Canada, sea otters are under the jurisdiction of DFO and are listed as special concern under the Canadian Species at Risk Act. All recommendations made by the Wildlife Branch must be reviewed by DFO agency representatives.

Large Cetaceans (Body length >= 3m)

Large cetaceans most likely affected by an oil spill in the Pacific Northwest include Killer whales, Gray whales, Humpback whales, and Minke whales. Many other large cetaceans frequent offshore waters in Washington and Oregon and are listed in the Supporting Information for the Marine Mammal section of the Northwest Wildlife Response Plan. Large cetaceans are highly mobile and the likelihood of these animals staying in contact with surface oil is likely limited for most spill situations. If large cetaceans are reported to be moving through oiled areas, detailed observations and monitoring of the animals should take place. Hazing of large cetaceans is unlikely but will be considered on a case by case basis. Hazing options for large cetaceans may be informed by the Supporting Information for the Killer Whale section of the Northwest Wildlife Response Plan (NWACP).

The southern resident killer whale (SRKW) population is listed as endangered under the U.S. Endangered Species Act (ESA) and the Canadian Species at Risk Act. This population is also protected under the Marine Mammal Protection Act (U.S.) and Fisheries Act (CAN). Southern resident killer whale critical habitat has been designated in U.S. and Canadian waters forming a continuous area including Puget Sound and the Southern waters of British Columbia (see U.S and CAN SRKW recovery strategies for boundaries). Transient killer whales are listed as Threatened under the Canadian Species at Risk Act. Evidence suggests that killer whales are unlikely to detect and avoid spilled oil, and exposure can result in population-level impacts (Matkin et al. 2008). Specific deterrence methods (if any) recommended at the time of a spill will be those that have the greatest chance of success depending on current conditions and information. Whether or not killer whales can be deterred from entering an oil spill is directly related to the degree to which the whales are attracted to an area. No one individual deterrence technique will work in all situations. Deterrence and monitoring activities are the only mitigation measures possible during an oil spill as capture and rehabilitation of killer whales is improbable. Killer whale response activities will comply with guidelines in the document "Supporting Information for the Killer Whale section of the Northwest Wildlife Response Plan." Additional information on deterrence techniques and the availability of equipment and trained personnel can be found at NOAA's Office of Response and Restoration

webpage.

Gray whales migrate along the coast of Oregon, Washington and British Columbia and are frequently sighted in Puget Sound and B.C. waters during the spring and fall migration periods (i.e., winter in Mexican and California latitudes, summer in Northern latitudes, primarily the Bering Sea). Also many grey whales do not migrate all the way to the Bering Sea and spend the summer in Puget Sound and B.C. waters. While in Puget Sound and B.C. gray whales feed in shallow areas on benthic crustaceans by scooping up sediments from the sea floor and filtering the contents. If a spill occurs in a known gray whale feeding area, ingestion of oil from contaminated sediment may occur. Monitoring and mitigation of spill affects in these sensitive feeding areas would be important. Gray whales have been individually photo-identified by Cascadia Research Collective and other researchers in Northern Puget Sound and B.C. Photo-identifying individual gray whales proximal to a spill would be beneficial for long term studies to assess potential impacts to individuals.

Humpback whales also migrate off the coast of Oregon, Washington, and British Columbia and are sighted regularly. Sightings of humpback whales have increased in inland waters of Washington State and British Columbia. Individual humpback whales have been cataloged and photo identified by Cascadia Research Collective and other researchers. Recent studies of humpback whales in the North Pacific under the SPLASH project have revealed a complex population structure and population growth rate of 4-7% per year to 2006 with a total population estimate of 20,000 animals (Calambokidis, et al. 2008). Special considerations should be made for Humpback whales as they are listed as endangered under the Endangered Species Act (U.S.) and Threatened under the Species at Risk Act (CAN).

Minke whales are frequently sighted within the Strait of Juan de Fuca and are considered to be relatively common in the Pacific Northwest, however no population estimates are available for the North Pacific.

Small Cetaceans (Body length <= 3m)

Small cetaceans most likely affected by an oil spill in the Pacific Northwest include Dalls' porpoise, Harbor porpoise, and Pacific White-sided dolphins and specific information on their risk factors and special considerations for their treatment are below. Many additional small cetaceans frequent offshore waters in Washington and Oregon and may be impacted if a spill were to occur in the open ocean. These species are listed in the Supporting Information for the Marine Mammal section of the Northwest Wildlife Response Plan, Chapter X of the NWACP. Hazing options for cetaceans can be found in the Supporting Information for the Killer Whale section of the Northwest Wildlife Response Plan, Chapter 9310 of the NWACP. Hazing of small cetaceans is unlikely but will be considered on a case by case basis.

Dall's porpoise and Harbor porpoise frequent inland and coastal waters of Oregon, Washington and British Columbia. Harbor porpoise favor coastal waters such as shallow bays, estuaries, and tidal channels and are frequently sighted within Puget Sound and Southern British Columbia. The harbor porpoise is listed as special concern under Species at Risk Act (CAN). Dall's porpoise distribution and abundance varies seasonally and inter-annually as oceanographic conditions vary. Little is known about current population trends, distribution and abundance. Harbor and Dall's porpoise are small enough for trained field teams to remove from the site for health assessments, rehabilitation or euthanasia if required. Harbor porpoise rarely survive rehabilitation and this should be taken into consideration when determining if intervention is necessary.

Pacific White-sided dolphins have been increasing in number within coastal waters, particularly in the Strait of Juan de Fuca and Puget. Groups of 10-50 individuals are frequently sighted throughout the region and larger groups will form temporarily. Off shore Pacific White-sided dolphins are numerous and have been seen primarily in shelf and slope waters. Sightings data suggests a seasonal north-south

movement, with animals found primarily off California during the colder water months and shifting northward into Oregon, Washington and British Columbia as water temperatures increase in late spring and summer. No long-term trends in abundance or net productivity rates are available.

Pinnipeds

Seals and sea lions inhabit inshore areas throughout the Pacific Northwest. If an oil spill were to occur in inshore waters, pinniped species which may be affected include:

Harbor seals occur year round and are widely distributed in marine, coastal, and estuarine habitats in the Pacific Northwest. Harbor seals are the most likely pinniped to be affected by an oil spill. Harbor seals use hundreds of haul out sites along the coast and inland waters. Harbor seals' peak pupping times vary throughout the region. In Southern British Columbia the peak pupping time is July 15th and an important consideration if an oil spill occurs. Harbor seal pups nurse for 4-6 weeks and suckling may increase the risk of oil ingestion for the pup. Pups do not have a thick protective blubber layer and thermoregulation capability may be compromised by oiling. These additional concerns may warrant intervention on a case by case basis. If oiled harbor seals are reported to the Wildlife Branch, detailed observations on the animals' location, behavior, age class, overall condition, and availability of rehabilitation resources will all be considered before intervention. Intervention on free swimming harbor seals is unlikely to be successful unless the animal is question is debilitated, making capture more feasible. If intervention is warranted harbor seals can be washed in thermal-neutral water and soap applied and rubbed on the fur until the oil is visibly removed. Because of their relatively small size, there are more facilities and local marine mammal responders that have extensive experience handling harbor seals. The number of animals that can be processed currently depends on the availability of space at local rehabilitation facilities that can handle the animals properly.

Northern elephant seals are the largest pinniped species found in the Pacific Northwest, and individuals are seen throughout Oregon, Washington, and British Columbia. Following their winter breeding season and annual molting cycle, individuals disperse northward along the Oregon, Washington, and British Columbia coasts. It is common for juvenile Northern elephant seals to go through a 4-5 week molting period. If the animal is exposed to oil during the molting process, cleaning or temporary rehabilitation should be considered. Elephant seals can be washed in thermal-neutral water and soap applied and rubbed on the fur until the oil is visibly removed. Extreme care must be taken while washing molting elephant seals since the molt is replacing several upper layers of the epidermis. Intervention on free swimming elephant seals will not be initiated unless the animal is question is in obvious stress and capture is feasible. The capture and rehabilitation of juveniles might be an option depending on facility and expertise availability.

California sea lion and Steller sea lion numbers vary seasonally in Oregon, Washington, and British Columbia. Steller sea lions are resident year round with concentrations found on offshore rocks and islands on the outer coast and smaller numbers found in the Salish Sea. In the Pacific Northwest, Steller sea lions breed in Southern Oregon and off the Coast of British Columbia during the summer, and except for the breeding rookeries, numbers at regular haul out sites tend to decline during the breeding season. California sea lion populations fluctuate seasonally with males migrating from California and Oregon to the Pacific Northwest. Haul-out sites can be found throughout the Pacific Northwest, typically on jetties, offshore rocks, and coastal islands. If sea lions are oiled the decision to capture or intervene will need to consider factors like sex, age, reproductive state, size of an individual animal, and their location in respect to other marine mammals. Intervention and capture of free swimming sea lions will not be initiated unless the animal is question is in obvious stress and capture is feasible. The capture and rehabilitation of large sea lions present significant challenges and should only be attempted if the animals are heavily oiled or showing obvious behavioral signs of impairment from the oiling. Their large surface to volume ratio and

generally abundant blubber layer offers both insulation and a significant calorie reserve if oiled, giving sea lions a greater resistance to thermoregulatory issues (as compared to fur seals and otters) and consequently additional energy reserves to rely on while convalescing. This may allow the animal to survive well until natural processes such as water movement and molting remove the oil.

Northern fur seals are pelagic and spend seven to ten months of the year at sea coming ashore only to breed; primarily on rocky beaches on isolated islands. There are currently no breeding areas in Washington or Oregon for Northern fur seals or Guadalupe fur seals. Adult Northern fur seal females and pups from the Pribilof Islands migrate into the North Pacific Ocean and are commonly sighted off Oregon and California. Guadalupe fur seal presence has increased dramatically in the Pacific Northwest since 2007. Juveniles are sighted off the coasts of Washington and Oregon and strand regularly throughout the summer months with a primary cause of death due to emaciation and malnutrition. Guadalupe fur seals are pelagic and spend a majority of their time in the open ocean only coming ashore almost exclusively to Guadalupe Island in Baja California during the breeding season. If fur seals are visibly oiled capture and intervention should be seriously considered. Northern and Guadalupe fur seals have a thin subcutaneous fat layer and a thick pelage that thermally insulates these animals and they can easily undergo thermoregulatory problems if they are externally exposed to oil. Additional considerations must be made for Guadalupe fur seals since they are listed as threatened under the Endangered Species Act. Adult and sub-adult Fur seals can be difficult to handle due to size restrictions and behavioral aggression, for these reasons intervention may not be feasible. If a case is presented and intervention is deemed necessary, fur seals are washed using a thermal neutral washing detergent solution and require salt water for long term care. Fur seals, which depend on their coat for thermoregulation, may need to be placed in a drying enclosure and will need additional monitoring for dehydration, hyperthermia, hypothermia, and alertness.

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 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.

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.

B. Response Strategies

1. Control Strategies

Control actions, such as skimming and booming, are recommended to prevent oil from reaching marine mammal or bird concentration areas. Where environmental considerations permit and authorization is given, the use of in-situ burning and/or chemical dispersants may also be options. However, the use of booms, skimmers, and *in situ* burning is typically preferred near concentrations of sea otters because dispersants may reduce the insulating value of sea otter fur and therefore may cause mortality to some sea otters. In addition, there may also be a potential for other sub-lethal effects, such as severe eye irritation including corneal burns. Therefore, spraying dispersants near, or adjacent to, a targeted oil slick in areas with sea otters should be avoided. In addition, dispersants should only be applied in areas with adequate water depth (and far enough from shore) to ensure that sufficient dilution of the oil/dispersant mix has occurred. In Washington, as a general rule, dispersants may only be applied in waters deeper than sixty feet (See NWACP). Under the Canada Environmental Protection Act use of dispersants are illegal and are not permitted. It is highly recommended that consultations take place between the Wildlife Branch, the Environmental Unit, and the Operations Section prior to any operational decision being made regarding oil recovery/removal operations that would take place in the vicinity of wildlife concentration areas.

Pinnipeds

Geographic response plans contain booming strategies to protect known haul outs when spill trajectories indicate likely impact at these sites. The Washington Department of Fish and Wildlife Atlas of Seal and Sea Lion Haulout Sites in Washington contains a thorough list of haul out sites (Jeffries, S.J., P.J., Gearin,

H.R., D.L. Saul, and D.A. Pruett. 2000. Atlas of Seal and Sea Lion Haulout Sites in Washington. Washington Department of Fish and Wildlife, Wildlife Science Division, 600 Capital Way North, Olympia WA.pp.150.)

2. Deterrence Strategies

Sea Otters

The purpose of deterrence strategies is to keep sea otters away from oiled areas. Preemptive capture of sea otters that would be in the path of an oil spill is an option that will be considered. Pre-emptive capture of sea otters before they become oiled may be an option. However, it is unlikely that it will be utilized as a response option in the Pacific Northwest due to the logistics involved, the dangers to the animals themselves during the capture, and the dangers to personnel involved with capture efforts. The outer coasts of Washington and Vancouver Island have areas which are remote and logistically challenging, which makes capture difficult.

These *CANUSPAC Wildlife Response Guidelines* assume that, if a pre-emptive unoiled sea otter capture program is approved by the CCG OSC and the USCG FOSC:

- **All aspects of the program will be conducted under the direction of the USFWS representatives in coordination with DFO representatives.**
- **Elements of the program may be performed by a contractor agreeable to both USFWS and DFO representatives.**
- **Decisions regarding euthanizing any captured sea otters will be based on a written plan approved by USFWS or DFO depending on geographic area of authorization.**
- **The sea otter release plan will be developed by USFWS or DFO representatives depending on geographic are of authorization.**

Small Cetaceans (Body length <= 3m)

(See NWACP)

Small cetaceans are highly mobile (traveling 10's of miles per day) and with the exception of Harbor and Dall's porpoise only frequent offshore water where the likelihood of these animals staying in contact with surface oil is reduced. Most cetaceans are not highly sensitive to the mechanical or toxic effects of oil on the skin (Geraci 1990) and thus the value of intervention is greatly reduced compared to the stress and risk of injury associated with capture.

Large Cetaceans (Body length >= 3m)

(See NWACP)

Killer whale (Orca) (See NWACP)

In situations where immediate action is necessary to prevent killer whales from entering oil, NOAA Fisheries has given the USCG Captain of the Port the authority to implement the following deterrence activities: use of Oikomi pipes, use of seal bombs deployed from vessels, and use of helicopters to attempt to herd/move whales. Every reasonable effort will be made to contact NOAA Fisheries prior to attempting these methods, but it is recognized that this might not always be possible. Use of any deterrence mechanisms other than the three methods listed above will require consultation with NOAA Fisheries prior to implementation. Any deterrence actions taken, as well as the results of those actions, will be reported to NOAA Marine Mammal Health and Stranding Program as soon as possible. If the nature of the threat to killer whales is not imminent, the WBD will consult with the NOAA Marine Mammal Health and Stranding Program prior to taking action.

A deterrence program will be considered any time killer whales are reported in or near an oil spill. The Wildlife Branch Director will determine whether or not to activate the Mammal Deterrence Unit to implement the deterrence program. There is not a "single" deterrence technique that will work in all situations. The Reconnaissance Group is responsible for collecting information on the effectiveness of deterrence activities. Spills of persistent oils or spills that are likely to cover large areas and that occur in the following areas and times will be given high priority for the development of deterrence plans/strategies:

Regional marine mammal stranding networks should be alerted by NOAA Fisheries and DFO when a spill occurs that may impact killer whales. If a carcass is found and NOAA Fisheries or DFO authorizes a necropsy, the necropsy should follow the established killer whale necropsy protocol (Raverty and Gaydos, 2004); NOAA's draft NOAA Marine Mammal Oil Spill Response Guidelines (Johnson and Ziccardi, 2006) and be coordinated with NOAA Fisheries or DFO.

Pinnipeds (See NWACP)

If oil is likely to impact haul out sites, then hazing methods should be discussed to keep animals from using the site. Little is known about the results of hazing pinnipeds in the event of an oil spill and will be considered on a case by case basis. Hazing options for pinnipeds can be informed by NOAA Fisheries guidance on seal and sea lion deterrence at:
http://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/pinnipeds/sea_lion_removals/

3. Capture Strategies

Sea Otter

A capture program will be considered if sea otters are oiled in the CANUSPAC area. Oiled sea otter capture and rehabilitation is very difficult, however, and requires specialized staff and equipment. Due to the environments where otters live, safety of the responders is of paramount concern. Only trained and experienced personnel will be utilized in capture of sea otters. An incident specific health and safety plan may be required for capture and transport of sea otters and will be coordinated with the incident Safety Officer and included in the IAP Site Safety Plan.

A request to initiate an oiled sea otter capture and treatment program in the trans-boundary area will occur in one of the following ways:

- **A request will be made jointly by DFO and USFWS representatives to the CCG OSC and the USCG FOSC; or**

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

If an oiled sea otter 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 the USFWS or DFO representative depending on the geographic area of authorization.**

- **Elements of the program may be performed by a contractor agreeable to both USFWS and DFO representatives.**

- **Decisions regarding euthanizing any captured sea otters will be based on a written plan approved by USFWS and DFO representatives.**

- **The sea otter release plan will be developed by USFWS and DFO representatives.**

Small Cetaceans (Body length <= 3m)

(See NWACP)

If a small cetacean live strands intervention and treatment should be considered. Beached cetaceans should not be pushed back out to sea without first being examined by a NOAA Fisheries or DFO approved marine mammal veterinarian and the action approved by NOAA Fisheries or DFO. Responders should follow the Live Cetacean Stranding Protocol provided by the Northwest Marine Mammal Stranding Network within NOAA Fisheries or the DFO British Columbia Marine Mammal Response Network stranding protocol. These protocols outline how to respond to a live cetacean stranding and options for release, how to keep the animal comfortable on shore if it cannot be moved, transport and rehabilitation options, and euthanasia considerations. Prior to being returned to the open ocean, cetaceans should be marked with a NOAA Fisheries or DFO approved brand or tag.

Large Cetaceans (Body length >= 3m)

(See NWACP)

Killer whale (Orca)

(See NWACP)

Pinnipeds (See NWACP)

Sea lions, harbor seals, and elephant seals rely on their thick blubber layer for insulation, making them less susceptible to hypothermia when they become externally oiled. Depending on the extent of exposure, toxicity, the volume ingested or inhaled, and clinical signs, some pinnipeds may not need to be captured and rehabilitated. For pinnipeds that regularly haul out this is an opportunity for oil to be abraded, many

of these species do not preen their pelt further reducing the risk of oil ingestion.

In cases of light to moderate oiling of animals on shore, they should be monitored by individuals knowledgeable in pinniped biology and behavior to see if they can clear themselves of the oil or to detect deterioration in their health status that requires intervention. Moribund pinnipeds that have been impacted may be candidates for euthanasia and this will be determined on a case by case basis. In situ treatment on the beach can be considered if it is feasible to capture, anesthetize, clean, and release the animals on site. Pinnipeds should be considered for washing and immediate release at or near the capture sight if the threat of re-oiling is minimal (Gales and St. Aubin 1995) (Geraci and Lounsbury 2005). Pinnipeds generally tolerate short term capture and transport and do not seem to be highly susceptible to capture myopathy (Gales and St. Aubin 1995). Heavily oiled pinnipeds and obviously oil impaired pinnipeds may be considered for capture and cleaning. Temporary holding pens filled with absorbent sphagnum moss may be an option for heavily oiled pinnipeds; this would reduce handling, absorb oil from the pelt of the animal, and allow monitoring of the animal's overall health. In a large spill and/or when oil is expected to persist in the environment frequented by pinnipeds it may be necessary to capture, rehabilitate and hold pinnipeds until their health and the environmental conditions improve and re-oiling is unlikely.

The Marine Mammal Oil Spill Guidelines are a thorough guide to wildlife recovery and transportation and should be referenced when pinniped capture is being considered. A decision to capture should consider such factors as sex, age, reproductive state, size of the individual animal, and their location with respect to other marine mammals. The potential benefits of capture must outweigh potential negative consequences and capture is to be conducted in accordance with the Wildlife Recovery and Transportation section of the Marine Mammal Oil Spill Response Guidelines. Top priority is personnel safety; capture and transportation of oiled marine mammals should be performed only by qualified personnel who have received the appropriate safety training, as well as marine mammal handling and restraint training. Local marine mammal stranding network responders and biologists are instrumental in this task and a list of trained responders can be obtained from the Northwest Marine Mammal Stranding Network Coordinator within NOAA Fisheries or the British Columbia Marine Mammal Response Network Coordinator within DFO.

Wildlife Annex - Appendix 1

Selected Species and Wildlife Resource Agency Management Responsibility - Canada

Management Responsibility	Entity	Emergency Contact	Phone Number	24-Hour Number	E-mail
Terrestrial mammals and provincially-managed non-migratory birds[1]	British Columbia Ministry of Environment and Ministry of Forests, Lands and Natural Resource Operations	Trudy Chatwin	250-751-3150 (w) 250-741-1641 (c)		Trudy.Chatwin@gov.bc.ca
		Ministry of Environment - Report an Environmental Emergency 24 hr Hotline		1-800-663-3456	
Marine mammals	Fisheries and Oceans Canada	Paul Cottrell	604-240-3841 (c)	604-666-3500	Paul.Cottrell@dfo-mpo.gc.ca
		Graham Van der slagt	778- 828-8696(c)	778- 828-8696	Graham.Vanderslagt@dfo-mpo.gc.ca
	Environment Canada	National Environmental Emergencies Centre (NEEC) Duty Officer		1-866-283-2333	NEEC_CNUE@ec.gc.ca
		Mathieu Dussault	514-283-0195 (w) 514-217-0910 (c) 514-504-1830 (h) 514-330-4336 (p)	1-866-283-2333	Mathieu.Dussault@ec.gc.ca
	Canadian Wildlife Service	Erika Lok	604-350-1904 (w) 604-364-7429 (c)		Erika.Lok@ec.gc.ca
		Kevin Fort	604-350-1978 (w) 778-868-6357 (c)		Kevin.Fort@ec.gc.ca

[1] Birds under British Columbia Ministry of Environment jurisdiction as defined by the Wildlife Act include: eagles, grouse, quail, pheasants, ptarmigan, hawks, owls, cormorants, pelicans, crows, jays, blackbirds, kingfishers, and falcons.

Wildlife Annex - Appendix 2

Selected Species and Wildlife Resource Agency Management Responsibility - United States

Management Responsibility	Entity	Emergency Contact	Phone Number	24-Hour Number	E-mail
Terrestrial mammals Migratory birds (as defined in the Migratory Bird Treaty Act), sea otters	Washington Department of Fish and Wildlife	Oil Spill Team – Duty Officer	360-534-8233 (24-hr pager)	360-534-8233 (24-hr pager)	
	U.S. Department of the Interior - Fish and Wildlife Service	Allison O'Brien	503-326-2489 (w) 503-915-5418 (h)	503-720-1212	Allison_O'Brien@ios.doi.gov
Pinnipeds, cetaceans	U.S. Department of Commerce - National Marine Fisheries Service	Ruth Yender	206-526-6081 (w) 206-849-9926 (c)	206-526-4911	ruth.yender@noaa.gov

Wildlife Annex - Appendix 3A

General Permit Information for Selected Response-Related Activities: Birds and Mammals

	Washington Department of Fish and Wildlife		U.S. Fish and Wildlife Service		National Marine Fisheries Service		Environment Canada Canadian Wildlife Service		Department of Fisheries And Oceans Canada		British Columbia Ministry Of Environment and Ministry of Forests, Lands, and Natural Resource Operations	
	Migratory Birds[1]	Sea Otters	Migratory Birds[1]	Sea Otters	Migratory Birds[1]	Sea Otters	Migratory Birds[1,6,7]	Sea Otters	Migratory Birds	Marine Mammals	Birds[6]	Mammals
Collect, Transport, and Hold	Yes	No	Yes[3]	Yes[3]	n.a.	Yes[3]	Yes[3]	n.a.	n.a.	Yes	Yes	Yes
Haze	Yes[2]	No	No[4]	Yes	n.a.	Yes	Yes[2,5]	n.a.	n.a.	Yes	n.a.	n.a.
Import and Export	Yes	Yes	Yes	Yes	n.a.	Yes	See British Columbia	n.a.	n.a.	Yes	Yes	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] Passive hazing (e.g., balloons, scarecrows, mylar tape) does not require a permit.
[3] Includes salvage of oiled wildlife carcasses.
[4] A USFWS permit is needed to haze species managed by USFWS, including those listed on the federal endangered species list. As of September 2000, the list included the short-tailed albatross, which may be found in the CANUSPAC trans-boundary area.
[5] An EC CWS permit is only required for hazing with a firearm or aircraft.
[6] All terrestrial wildlife in British Columbia falls under the jurisdiction of British Columbia Wildlife Act. However British Columbia has primary authority :for terrestrial mammals (including bears, river otters,raccoons, mink and deer), eagles, grouse, quail, pheasants, ptarmigan, hawks, owls, cormorants, pelicans, crows, jays, blackbirds, kingfishers, and falcons.
[7] The permitting requirements under the Species at Risk Act (SARA) are still under review; therefore, species listing is subject to change. Contact EC CWS and DFO for current requirements when dealing with species listed under SARA.

Wildlife Annex - Appendix 3B

Specific Permit Information for Selected Response-Related Activities: Birds and Mammals

	Permit Name	Authorizing Law or Regulation	Entity Issuing Permit and Location
Hazing Birds	Hazing Permit	Endangered Species Act	USFWS,
		Bald Eagle Protection Act	USFWS,
	Special Scare Permit	Migratory Birds Convention Act	CWS, Delta, B.C.
Capturing, Transporting, & Cleaning Birds	Migratory Bird Permit	Migratory Bird Treaty Act	USFWS, Olympia, WA
	Rehabilitation Permit	Washington Statute WAC 232.12.841	WDFW , Olympia, WA
	Migratory Bird Salvage and Rehabilitation Permits	Migratory Birds Convention Act	CWS, Delta, B.C.
	Capture, Relocation, and Transport Permits	British Columbia Wildlife Act	Province of British Columbia (Front Counter British Columbia, Permits application can be made at http://www.frontcounterbc.gov.bc.ca/guides/fish-wildlife/general-permit/overview/
Importing/ Exporting Birds	Import/Export Permit	Migratory Bird Treaty Act	USFWS, MBM, Anchorage, AK
	Import Permit	British Columbia Wildlife Act CITES	USFWS, OMA, Washington, D.C. CWS CITES Admin., Hull, QE Province of British Columbia (Front Counter British Columbia),. http://www.frontcounterbc.gov.bc.ca/guides/fish-wildlife/general-permit/overview/
	Sundry Export Permit	British Columbia Wildlife Act	British Columbia FLNRO
Pre-emptive Sea Otter Capture	Marine Mammal Protection Act Letter of Authorization	Marine Mammal Protection Act	USFWS, OMA, Washington, D.C.
	Marine Mammal Scientific License	Fisheries General Regulations	DFO, Vancouver, B.C.
	Marine Mammal Transport License	Marine Mammal Regulations	DFO, Vancouver, B.C.
Importing/Exporting Sea Otters	Import/Export Permit	Marine Mammal Protection Act	USFWS, OMA, Washington, D.C.
	Import/Export Permit[3]	CITES	USFWS, OMA, Washington, D.C. DFO, Vancouver, B.C.