

B.C. Marine Oil Spill Prevention and Preparedness Strategy

This page provides the **B.C. Marine Oil Spill Prevention and Preparedness Strategy** prepared by the B.C. Ministry of Environment. The original strategy was written in 1991 after the *Nestucca* barge oil spill of Washington's coast (1988) and the *Exxon Valdez* tanker oil spill in Alaska (1989). The following changes preserve the intent of this strategy.

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Foreword

When oil from the leaking American barge, *Nestucca*, drifted north onto our beaches in January 1988, British Columbians realized suddenly that our beautiful coastal environment could be seriously affected by spills originating well beyond our own shores.

Since that time, however, the Province has been actively engaged in preparing to respond to such accidents. The need for a clear focus for Provincial response activity has become apparent during these preparations.

As lead provincial coordinating agency for marine oil spills in British Columbia, B.C. Ministry of Environment has prepared a strategy for coordinated action with industry, the public and the federal government.

That strategy, printed herewith, will guide the Province in its allocation of resources and personnel both in the preparation for, and response to, oil spills that may occur. It will be reviewed and improved as new knowledge and techniques become available.

Guiding Principle

The Province of British Columbia is committed to protecting British Columbia's coastal environmental resources from harmful oil spills emanating from marine vessels, industrial facilities or inland sources.

Because of its responsibility to protect and manage Crown lands, the Province is a major stakeholder in any marine oil spill. Its jurisdiction includes all land between the high and low water mark, the seabed of the Strait of Georgia, Juan de Fuca and Queen Charlotte Sound-Johnstone Strait, and the coastal seabed between major headlands unless responsibility has been transferred specifically to a federal jurisdiction or is in private ownership.

Residing in or on these foreshore and seabed areas are provincial resources that include archaeological, recreational, heritage, wildlife and aquatic resources. Responsibility to protect and manage marine resources, such as waterfowl and fisheries, is often shared with federal agencies.

It is these provincial and shared resources of the foreshore, offshore and seabed that are at risk from a spill and that are vital to many coastal communities for their livelihood.

Since the federal government is also responsible for shipping and for certain other marine resources, responsibility to protect and manage marine resources is a joint effort between provincial and federal agencies.

Provincial Role

The Province will take an active leadership and participatory role in coastal resource identification and, in the event of an oil spill, the protection and cleanup of the intertidal shoreline and seabed, which are under the jurisdiction of the Province.

The Province's response efforts will focus on the [identification and mapping of provincial Crown resources](#), which include, but are not limited to, intertidal marine habitats, wildlife habitats and populations, archaeological, cultural, aquatic, park and ecological reserves.

The Province will set priorities for resource protection and will establish oil spill protection and cleanup measures for shorelines. As well, it will ensure the availability of equipment and trained personnel to manage spill response safely and effectively.

The Province will work in concert with federal agencies wherever both federal and provincial resources are to be protected.

The level of response capability of the Province will also recognize the particular expertise and resources of the Canadian Coast Guard, Environment Canada, and Fisheries and Oceans Canada to undertake emergency response. Opportunities will be established for contractors to provide skilled assistance and resources in the event of a major spill.

Oil Spill Prevention

The Province will place a high priority on actions and initiatives that will reduce the risk of marine oil spills and minimize environmental damage and social and economic impact.

The Province recognizes that reducing the risk of oil spills is the most appropriate strategy for minimizing impact to the environment and coastal communities. Spill reduction and prevention measures essentially involve actions pertaining to improved vessel design, traffic monitoring and navigation; reduced tanker and barge traffic; modified traffic routes to avoid accident-prone and environmentally sensitive areas; and decreased dependency on oil and its products.

Many of these actions lie beyond the legislative mandate of the Province. Nevertheless, the Province will exert its influence on such federal regulatory agencies as the Canadian Coast Guard to promote actions that will reduce the risk and environmental impact of marine oil spills.

This strategy will focus on provincial representation on inter-jurisdictional committees and [task forces](#), and on negotiation of agreements to influence the activities of agencies with jurisdiction over prevention measures.

The Province will identify and, if applicable, contribute to regulatory information, enforcement or research needs to ensure that the highest possible level of environmental protection is achieved by the prevention of oil spills in marine waters.

Oil Spill Preparedness

The Province will ensure that provincial agencies achieve a high level of preparedness in the event of an oil spill.

The Province of British Columbia recognizes that, despite the best preventive measures, marine oil spills are likely to occur, thereby necessitating a high level of oil spill preparedness.

B.C. Ministry of Environment will be the lead provincial agency in the development and implementation of a [B.C. Marine Oil Spill Response Plan](#) (PDF/631 KB). This plan will address both large and small oil spills and will involve local government, federal agencies, industry and the public to a degree that will vary with the magnitude of the spill.

B.C. Ministry of Environment will encourage other provincial ministries to assess their needs and capabilities for contributing to the provincial response in event of an oil spill.

Finally, the Province will continue to coordinate its response efforts with those of federal agencies.

Oil Spill Response

B.C. Ministry of Environment will be the lead ministry in the initiation of a provincial agency response to a marine oil spill. During a spill event, the Ministry will, in conjunction with the Provincial Emergency Program, coordinate the response of all provincial agencies and provide the provincial on-scene command.

B.C. Ministry of Environment will establish a number of marine oil spill response teams, using its regional office staff as a nucleus to serve B.C.'s north coast, Vancouver Island and the south coast. When notified of a major oil spill, the Ministry will deploy this team according to the **B.C. Marine Oil Spill Response Plan**.

To ensure that the Province's response to a marine spill has full interagency support, the Ministry will enter into formal agreements with the Provincial Emergency Program, the Ministry of Agriculture and Fisheries, the Ministry of Transportation and Highways, the British Columbia Ferry Corporation, the Ministry of Forests, and other agencies regarding the sharing of manpower, expertise, facilities and resources.

Agreements will emphasize the protection of coastal resource interests of other agencies and inclusion of staff of provincial agencies on the B.C. Incident Management (Response) teams where appropriate.

During an oil spill event, B.C. Ministry of Environment will establish a or co-locate within an Incident Command Centre and coordinate the use and deployment of provincial agency staff and equipment.

Industry Responsibility and Government Monitoring

The Province holds responsible for oil spill preparedness and response those industries and companies transporting, storing or using oil products. B.C. Ministry of Environment will place the onus on companies and industries to have well developed contingency plans. The onus will be on polluters to manage and mitigate oil spill impacts according to well defined plans and established capability. B.C. Ministry of Environment will set standards for industry spill contingency plans and undertake periodic reviews to ensure an adequate level of readiness by industry to respond to an oil spill.

Where an oil spill is being adequately managed by the polluter, B.C. Ministry of Environment will [monitor the situation](#) and will deploy resource and assessment teams in order to establish shoreline protection and cleanup priorities.

In consultation with federal agencies, B.C. Ministry of Environment will take on-scene command of any spill that exceeds the capability of the polluter or when it is in the provincial interest to take action. The Ministry will also take on-scene command when a polluter is not known, unable to respond, or has no response plan to guide its efforts.

Performance bonding, ability to pay/damage compensation and liability will not be deciding factors in the timing and degree of provincial response to an event. Such matters will be addressed with the polluter once the situation is under control and the impact fully evaluated.

Federal and International Agreements

In order to clarify the roles and responsibilities of the Province in oil spill response with respect to other jurisdictions, B.C. Ministry of Environment will initiate the review and amendment of federal and international agreements and initiate new agreements as necessary.

The 1981 Federal/Provincial Memorandum-of-Understanding concerning oil and hazardous material spills will be rescinded and a new memorandum of understanding on environmental interactions be written to more clearly establish roles and responsibilities concerning oil spills and to enhance cooperation for maximum public benefit. Federal and provincial cooperation will be enhanced through joint exercises, coordination of plans and studies, and sharing of resource technologies.

To improve the response to trans-boundary incidents, the Province will participate in mutual aid agreements to facilitate the sharing of resources and expertise during environmental emergencies, and to establish a notification network with neighbouring U.S. coastal states.

The Pacific States/British Columbia Oil Spill Memorandum of Cooperation (June 1989), which outlines improved trans-boundary response and information sharing, will be actively maintained by the Province. The [Pacific States/British Columbia Task Force](#) will,

on an annual basis, provide reports to member jurisdictions on individual activities that may be of mutual benefit in oil spill preparedness, prevention and response.

Local Government Involvement

The Province will encourage coastal communities and local governments to participate in localized, near-shore spills.

B.C. Ministry of Environment will initiate memoranda-of-agreement with local governments to establish a capability for dealing with the impact of spills in coastal areas. In the event of a major spill, communities will be encouraged to contribute to and support the provincial response in their locale.

The Province will, in cooperation with the Canadian Coast Guard and oil industry, provide training programs designed to establish community-based marine oil spill workforce for shoreline cleanup and wildlife rescue. These groups will be formed from local public interest groups, Native bands, and service agencies, and will be registered with the Province for response in the case of a marine oil spill.

Areas of mutual cooperation will also include the identification and inventory of local experts, community cleanup equipment, valuable local resources and their sensitivity to oil impact, potential oily waste disposal sites, and transportation facilities.

Public Involvement

On the recommendation of the provincial on-scene commander, the public or special interest groups may be given the opportunity, resources and guidance to work with provincial government response teams.

A policy and guidelines will be developed to determine under what circumstances an oil spill warrants public participation and what role the public will play.

The Province will cooperate with federal agencies and local government to determine the most effective use of public participants.

Native Participation

The Province will involve the tribal and band councils of the coast in the identification of biological resources and archaeological and historical sites of importance to Native people, and in the cleanup of shorelines.

The Province recognizes the importance of protecting resources traditionally utilized by Native people and the potential contribution of Natives to the response effort after an oil spill.

Due to their intimate knowledge of the coastal environment and their concern for the impact of oil on resources, the Native coastal communities represent a significant source of manpower and expertise for all aspects of spill response, including shoreline cleanup. Their input will also be sought for shoreline sensitivity analysis and shoreline cleanup guidelines near Native and historic sites.

The Province will seek agreements with Native band councils regarding the use of Native teams for oil spill response.

Public and Personnel Safety

The Province will ensure that the safety of the public and oil spill response personnel is fully considered in determining provincial action during an oil spill event.

Protecting the public and ensuring the safety of personnel working on a spill will influence decisions regarding initiation of an emergency response, actions to minimize human hazard, deployment of response personnel, and timing and nature of impact mitigation.

During a spill event, B.C. Ministry of Environment will ensure that there are certified first aid personnel and adequate first aid supplies on site, as well as suitable orientation and instruction pertaining to remote field work and use of response equipment.

Safety of response personnel will be undertaken in accordance with the Workers' Compensation Act and its regulations.

Coastal and Oil Spill Information Coastal Information and Safety

B.C. Ministry of Environment will undertake the collection of information on sensitivity and vulnerability of provincial coastal resources at risk to oil spill. Shoreline protection and cleanup measures and priorities will be developed in accordance with this information.

B.C. Ministry of Environment will undertake coastal inventories and prepare oil sensitivity and vulnerability maps in order to identify high risk shorelines and resources. Before a spill event, this information will enable the Ministry to determine opportunities for shoreline protection and cleanup measures and to establish priorities for resource protection.

The use of [computer-generated maps and data](#) will be investigated in order to meet the high demand for efficient information capture, analysis and retrieval. Video tapes of the B.C. coastline will be prepared to record resources at risk and shoreline conditions. In addition, the Ministry will develop and maintain a computerized directory of scientists and professionals who may be contacted in an emergency to provide technical expertise.

In the event of an oil spill, the map, database, and video information systems will provide the basis for formulating informed and timely on-scene command decisions, impact assessment and damage compensation. In addition, the public can be provided readily with factual resource and response information.

This preparedness and response capability will place the Ministry in a very advantageous position during a major marine oil spill or when contributing to the efforts of federal agencies, industry or local government.

Oil Spill Assessment and Shoreline Cleanup Methods

B.C. Ministry of Environment will establish methods and criteria for determining impacts on provincial Crown resources for the purpose of response planning and impact compensation. Shoreline cleanup assessment and methods will be part of a provincial oil spill contingency plan.

B.C. Ministry of Environment will prepare methods and criteria for determining potential and actual impacts to coastal Crown resources from an oil spill. This planning is essential for directing initial oil spill response, such as containment of oil before shorelines are oiled, and for establishing priorities for cleanup of shorelines that are contaminated. The methods and criteria for impact assessment will be a major basis for determining compensation for damages to coastal resources.

As part of oil spill planning, B.C. Ministry of Environment will examine [environmentally-sound cleanup methods](#) that reflect B.C.'s varied types of shoreline and biological resources.

This information will be incorporated into shoreline assessment and cleanup manuals.

During any marine oil spill, members of the Ministry's Regional Oil Spill Incident Management Team will conduct pretreatment surveys of affected shorelines in order to set treatment priorities, develop treatment recommendations, and evaluate post-treatment conditions. Particular attention will be given to immediate surveys of coastal areas known to be extremely vulnerable to oil.

Coastal survey information is important for determining an acceptable level of protection and final cleanup for the segments of shoreline affected. A post-spill program to monitor and evaluate the long-term effects of the cleanup techniques will be implemented once the cleanup operation has been concluded.

Cost Recovery and Compensation

The Province will establish a framework, methodology and criteria for recovery of cleanup costs and damages.

The Province realizes that, even with the best intentions and response efforts, significant and costly damage may result from the pervasive nature of a marine oil spill. For this reason, a system of damage evaluation will be developed. This will entail collecting and recording during a marine oil spill all relevant information including photographs, scientific samples, oil spill distribution data, numbers of birds and mammals lost, habitat affected and costs of cleanup.

Standard procedures for sampling, documenting and safeguarding legal evidence during a spill will be put in place and included in response plans. Spill response personnel will receive training on the legal implications likely to be encountered during a response, on legal sampling, and on collection and documentation of evidence.

B.C. Ministry of Environment Enforcement Officers will provide technical expertise in legal sample gathering and labeling.

Shoreline Cleanup Equipment

To support the Provincial response to a marine oil spill, depots of essential response equipment will be established at strategic locations along the British Columbia coast.

B.C. Ministry of Environment will acquire sufficient equipment and materials for beach cleanup and wildlife rehabilitation. These will be stored at depots strategically situated along the B.C. coast. The stockpiled equipment will be sufficient to handle the impact on beaches of a small to moderate spill for the first 72 hours.

In cooperation with federal agencies, B.C. Ministry of Environment will investigate prearranged contracts with local companies to supply additional response equipment on a need-to-use basis, and to augment or replenish initial response equipment used.

A comprehensive, computerized inventory of oil spill response equipment stored and maintained by Canadian industry, international agencies, the Canadian Coast Guard and local governments will be developed and maintained in cooperation with federal agencies and members of the States/British Columbia Task Force.

Oil Spill Technologies

B.C. Ministry of Environment will maintain expertise and records of new and existing oil spill prevention and response technologies and products.

B.C. Ministry of Environment will keep abreast of both existing and new technologies and methodologies in all areas of oil spill response by undertaking evaluations of B.C. spill events and by keeping informed about current research done by government agencies, universities and the private sector.

B.C. Ministry of Environment will ensure that relevant information on new research is disseminated to response teams and that proven methods are incorporated into response plans and cleanup manuals. New, proven Canadian technologies will also be shared with the United States as outlined in the States/British Columbia Oil Spill Memorandum of Cooperation (June 1989).

The Province will support federal initiatives to promote coordination and collaboration of scientific research with other countries, particularly the United States, in order to provide timely dissemination of research results and to avoid unnecessary duplication of effort.

Oil Dispersants and In-situ Burning

B.C. Ministry of Environment will ensure provincial input into any developments in dispersant use and in-situ burning of fresh oil spilled in British Columbia, the State of Washington or the State of Alaska marine waters.

In general, the Province will support the use of dispersants and in-situ burning if their effectiveness can be proven at the time of use and their use proven not to be deleterious to provincial resources.

To assist in planning future dispersant and burning strategies, the Ministry will keep abreast of research into the effectiveness of these techniques and their toxicity to the environment, as well as formulate a decision-making process such as preauthorized use or action.

B.C. Ministry of Environment will endeavour to keep informed about any changes in the federal guidelines for dispersant use in British Columbia marine and fresh waters.

Waste Disposal

B.C. Ministry of Environment will establish environmentally sound waste management practices for the disposal of waste oil. These could include recycling, landfill, incineration or combinations thereof.

To accommodate the disposal of the large volumes of oily waste generated during the cleanup of an oil spill, pre-designed and approved disposal sites must be identified. B.C. Ministry of Environment will develop site selection criteria for waste oil handling and storage locations.

Through a consultation process with local governments and Native groups, the Ministry will identify, screen and designate permanent waste disposal sites, temporary coastal storage sites, and coastal incineration sites for oiled debris according to these criteria.

B.C. Ministry of Environment will also investigate acceptable methods for transporting oily waste, and study procedures for its safe disposal, including incineration.

Recovery and recycling of fresh oil from a spill, when feasible, will be examined as part of the waste management strategy.

Wildlife Rehabilitation

The Province will place a high priority on the cleaning and rehabilitation of oiled birds and marine animals.

The Province acknowledges the strong public concern for the fate of wildlife affected by an oil spill and accordingly will give a high priority to wildlife protection and rehabilitation.

B.C. Ministry of Environment will provide logistical support during a spill event; acquire, maintain and store bird recovery equipment and supplies; and facilitate a training program in bird cleanup techniques for the Environment Youth Corps. This effort will be effected in concert with the SPCA, Canadian Wildlife Service, and Wildlife Rescue Association.

Provision will be made to contract veterinary services to ensure that professional decisions are made in the management of wildlife rehabilitation.

B.C. Ministry of Environment will develop in-house expertise in the cleanup of oiled birds and animals and, in addition, will maintain a computer directory of outside experts and support the research efforts of local scientists.

To clarify the Provincial position with regard to wildlife treatment, the Ministry will adopt guidelines for the rehabilitation of birds and animals, including endangered species.

Oil Spill Response Training

B.C. Ministry of Environment will establish and maintain a training program in oil spill response for provincial staff.

B.C. Ministry of Environment will develop and maintain an active training program for all members of the regional oil spill response teams, including sessions on oil detection and monitoring, containment and recovery, legal sampling, shoreline restoration, impact assessment, waste disposal, wildlife cleaning and use of equipment.

Field manuals, revised regularly to incorporate new methods and technology, will be prepared and provided as part of the training program. Instituting "cross training" and the training of backup personnel will be effected to improve the flexibility of the Ministry contingency plan.

Regular oil spill drills and simulations will be an integral part of the training plan in which staff will be expected to play assigned roles. Joint exercises involving federal, provincial and American teams will be held.

Communications

A public relations and information plan will be developed as part of the provincial oil spill response to ensure that the public is provided with accurate and timely information during a marine oil spill.

In the event of a significant spill, the media specialist and team from B.C. Ministry of Environment will be responsible for ensuring that the public is fully informed about the size, nature and extent of the spill and of the response efforts.

The media specialist and this team will receive ongoing training and will participate in spill exercises.

Sufficient equipment will be supplied to enable them effectively to execute their duties.

Public Education

B.C. Ministry of Environment will strive to clarify for the public the Provincial role and responsibilities in oil spill response, and promote a better understanding by the public of shoreline protection and cleanup methods.

Increased public awareness of what action can reasonably be expected during an oil spill can be achieved through education and information programs directed to B.C. residents, especially those in coastal communities.

Matters to be addressed will include oil spill prevention, impacts on coastal resources, wildlife rehabilitation, and shoreline protection and cleanup methods.

The roles of various federal and provincial agencies in oil spill planning and response will also be addressed.