



**LAND BASED
SPILL PREPAREDNESS
AND RESPONSE
IN BRITISH COLUMBIA**

POLICY INTENTIONS PAPER FOR CONSULTATION



INTRODUCTION

The Province of British Columbia (B.C.) is committed to a world leading spill preparedness and response regime for land based spills, as expressed most recently in B.C.'s five conditions necessary for support of heavy oil projects. In keeping with the established polluter-pay principle, and recognizing the increase in development activities across the province, the Ministry of Environment (the ministry) is reviewing industry funded options for strengthening B.C.'s spill preparedness and response policies and capacity. Land based spill refers to any spill impacting the terrestrial environment, including coastal shorelines, regardless of the source.

This review addresses three aspects of land based spill preparedness and response:

- » World leading regime for land based spill preparedness and response
- » Effective and efficient rules for restoration of the environment following a spill
- » Effective government oversight and coordination of industry spill response

The review and consultation process consists of five phases:

- 1 Scoping** – including a review of emergency spill management programs in other jurisdictions, identification of current issues and consideration of alternatives for addressing the issues.
- 2 Policy Intentions Paper for Consultation** – (intentions paper) outlining the areas where the ministry is seeking stakeholder feedback on strengthening spill preparedness and response in B.C.
- 3 Consultation** – consulting with affected stakeholders and the general public, using the intentions paper and response forms posted on the ministry website, and other means as appropriate.
- 4 Detailed program and policy development** – drafting of any required regulatory changes for consideration by the Minister and/or Lieutenant Governor-in-Council, and engagement of appropriate parties to design desired funding and/or service delivery mechanisms.
- 5 Implementation of revised program components** – orientation and training of ministry staff and external stakeholders, development of guidelines and/or policies, monitoring and review for effectiveness and efficiency of program components.

The purpose of this intentions paper is to seek responses and comments from stakeholders and the public on the ministry's intentions and next steps in strengthening B.C.'s land based spill preparedness and response system. The intentions paper includes the following information:

- » Background information on B.C.'s land based spill response regime, including mandate and responsibilities and current status, guiding principles and challenges facing the ministry's Environmental Emergency Program
- » Federal responsibilities for spill preparedness and response and industry funded spill response organizations in B.C.
- » Discussion and summary of the ministry's intentions

- » A description of the avenues for providing comment on the ministry's intentions
- » A summary of spill prevention and response programs on the Pacific Coast and neighbouring jurisdictions (Appendix A)

The intentions paper and response form for providing comments to the ministry, as well as further information and links to related legislation, are posted on the ministry's website. The information can be accessed on the [ministry's consultation webpage](#), or from the [Ministry of Environment homepage](#) by following the [Environmental Emergency Program link](#).

BACKGROUND INFORMATION

British Columbia's Land Based Spill Response Regime

Mandate and Responsibilities

The *B.C. Emergency Program Act* (1996) and its [Emergency Program Management Regulation](#) identify the hazards for which the Ministry of Environment is the lead provincial agency. The ministry provides central emergency planning and technical support through the Environmental Emergency Program for the following environmental and public safety threats:

- » Oil and hazardous material spills
- » Gas and gas leaks

The ministry also provides support to other provincial agencies in the event of flood hazards, landslides, dam safety issues and seismic threats, as well as clandestine drug lab cleanup, dumping incidents, fires and other events on request.

Scope and responsibilities for environmental emergency prevention, preparedness and response are set out in three key provincial statutes. The *Environmental Management Act* (SBC 2003) sets out requirements for disposal of oil and hazardous materials, spill prevention and reporting, and pollution abatement. The [Spill Cost Recovery Regulation](#) (B.C. Reg. 250/98) under the Act outlines the process and parameters for recovering costs for responding to spills.

The [Spill Reporting Regulation](#) (B.C. Reg. 263/90) under the Act outlines the process for reporting spills, as well as the amounts of hazardous materials (such as flammable gases or liquids, chemicals and radioactive materials) that must be reported if they are spilled. Additional information about relevant legislation is provided on the ministry's [Environmental Emergency Program website](#) under the [legislative framework link](#).

SHARED RESPONSIBILITY

Responsibility for emergency preparedness and response in B.C. is shared among federal, provincial and local government agencies, as well as private sector and not for profit organizations.

LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BRITISH COLUMBIA

Current status

B.C.'s Environmental Emergency Program has 16 fulltime staff (including ten response officers stationed in seven communities across the province) and about \$2.4 million/year in dedicated funding. In the event of a major spill the program can also draw on support from technical specialists from, and funded by, other government programs. The Environmental Emergency Program covers the inland areas and coastal shoreline of B.C. (an area of 947,800 km² with a coastline of 27,000 km).

The ministry receives approximately 3,500 notifications of environmental emergencies per year. Approximately 90% of these are considered to be minor spills and are handled by regionally based environmental emergency response officers working in coordination with the spiller, local emergency response agencies (such as fire departments) and response contractors. For more significant spills, the ministry may invoke one of three [provincial response plans](#) (hazardous material, inland oil, marine oil) and deploy technical specialists as members of the provincial spill incident management team.

Funding for direct provincial spill response actions is secured through [Emergency Management BC](#). The province does not maintain a dedicated spill response fund. If necessary, the Minister of Environment may request and direct withdrawal of funds from provincial consolidated revenues for immediate response to an environmental emergency.



Guiding Principles

B.C.'s land based spill preparedness and response regime is guided by the following principles:

- » **The polluter-pay principle** – industrial and commercial sectors that pose a risk to the environment and public safety have the responsibility to address risks and impacts to human health and the environment.
- » **Emergency management is a shared responsibility** – stakeholders (businesses, governments) whose interests are directly affected by a spill (or threat) and have a capability to respond have a shared role in emergency preparedness and response.
- » **The level of emergency preparedness is commensurate with known risk** – the level of emergency preparedness by industry and government should be commensurate with the degree of threat which it either creates or is mandated to handle. Risk needs to be assessed and managed. These risks include physical risks (people, property, environment) and institutional risks (political, financial, legal).
- » **Emergency planning and response is in accordance with accepted protocols and standards** – emergency planning, preparedness and response are based on proven and accepted standards and protocols.
- » **Response strives for a net environmental benefit** – most spills degrade the environment. Response actions can also cause environmental impacts. The objective of response is to seek a net environmental benefit whereby the overall response outcome is beneficial to people, property and the environment. Human health and safety is not to be compromised.
- » **Response decisions are based on fairness and transparency** – emergency response is not at “any cost,”¹ nor can unreasonable impacts be transferred from one area (or group of stakeholders) to another. Reasonable costs and inclusiveness in response decisions is a primary principle of effective incident management.
- » **The primary role of a government is to demonstrate and apply governance** – it is government – not the spiller – that has the accountability and responsibility to determine priorities for the public, infrastructure, business and environmental protection, and to establish and monitor response performance.

The ministry is seeking comment on the principles and their application in guiding spill preparedness and response in B.C. Comments and suggestions are also welcome on any gaps in the guiding principles or on strengthening the effectiveness of the principles.

¹ Response decisions are based on environmental, social and economic considerations with an underlying objective of seeking a net environmental benefit, in keeping with the full set of guiding principles.

LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BRITISH COLUMBIA

Challenges facing B.C.'s land based spill preparedness and response regime

Transport of materials with potential risk to the environment (including petroleum products, chemicals and other materials) can involve highways and roads, marine and air transport, pipelines and rail. Risks to the environment include risks to terrestrial, freshwater aquatic and marine ecosystems and species, as well as risks to human health through contaminated air, water and soil. Spills can also have significant economic, social and cultural impacts for British Columbians.

The safe transport and use of materials is an essential element of B.C.'s economy. The province's growing population and role as a Pacific transportation gateway result in a growing volume of materials being transported, as well as increased volumes of traffic movement. For example, in the past seven years there have been almost half a million large vessel movements along the B.C. coast.² Over the next 15 years, large vessel movements of all types along B.C.'s coast are expected to increase. Highway freight, rail and pipeline volumes are also projected to rise as commodities are moved in and out of B.C.'s ports.

B.C.'s spill response regime emphasizes cooperation with federal, local and industry partners within staff and budget resources. Response is currently focused on higher risk environmental emergencies, limiting support for B.C.'s prevention and preparedness activities (such as training and reviews of operations). Additional challenges include timely response to remote events, access to and transport of specialized equipment, ability to work with local and other provincial emergency response agencies to provide training and support, and ability to monitor and report cleanup and remediation.



² Transport Canada figures, see: *Technical Analysis – Requirements for British Columbia to Consider Support for Heavy Oil Pipelines* page 8, footnote 8.

Federal responsibilities for spill preparedness and response



The Government of Canada has responsibilities under federal legislation and international agreements for navigation and shipping, marine fisheries and works connecting provinces. Transport Canada establishes the **regulatory framework and guidelines for preparedness and response to ship-source spills** and the transportation of dangerous goods, as well as **certifying private sector marine response organizations**. The **National Energy Board** regulates construction and operation of inter-provincial pipelines, and as such is the federal lead for spills along these lines. The **Canadian Coast Guard** is the lead federal agency responsible for ensuring the cleanup of ship-sourced spills of oil and other pollutants into Canadian waters. **Environment Canada** is the federal authority for providing environmental advice in the event of a spill and may serve as the lead federal agency for other types and sources of spills.

As the provincial lead for environmental emergencies, the Ministry of Environment works with federal lead agencies for any spills under federal jurisdiction that impact provincial interests.

Industry funded spill response organizations in British Columbia

Under *Canada Shipping Act* regulations, Transport Canada sets requirements and certifies private sector organizations that provide marine oil spill preparedness and response services. The **Western Canada Marine Response Corporation** is currently the only organization that has been certified to provide these services in B.C.'s navigable waters. The corporation is funded by industry through membership, bulk oil cargo and capital asset fees. The corporation provides training, undertakes response exercises and responds to approximately twenty spills each year. In the 2011 calendar year, the corporation reported revenues of \$5.5 million, expenses of \$5.3 million and a net income of \$200,000.

Petroleum companies operating in northeastern B.C. have established a cooperative to develop and maintain contingency plans, containment equipment and training through **Western Canadian Spill Services**. Revenue for the company is generated through membership (service) fees, and fees are based on number of wells and length of pipeline. Cooperative agreements for spill services cover all of Alberta, and portions of B.C. and Saskatchewan. In 2007 both revenue and expenses for the company were about \$1.6 million.

MINISTRY INTENTIONS

The ministry has undertaken a number of reviews in recent years to identify opportunities and options for strengthening spill preparedness and response in B.C. These include a review of program funding mechanisms, [a technical analysis of requirements for British Columbia to consider support for heavy oil pipelines](#) and a jurisdictional scan of programs in Pacific and neighbouring jurisdictions (see Appendix A). Environmental Emergency Program staff also participate in regular inter-jurisdictional meetings and incident reviews with the aim of identifying and maintaining best practices. This includes participation in the [Pacific States-British Columbia Oil Spill Task Force](#).

Building on this information, the ministry is seeking comment on three specific areas intended to affirm and strengthen spill preparedness and response in B.C.:

- » Establishing a world leading regime for land based spill preparedness and response
- » Developing effective and efficient rules for restoration of the environment following a spill
- » Ensuring effective government oversight and coordination of industry spill response

1 Establishing a world leading regime for land based spill preparedness and response

World leading standards

The ministry intends to ensure that world leading standards for land based spill preparedness and response are in place and followed across B.C. Standards may include such elements as: minimum response times, equipment requirements, trained personnel requirements, wildlife response, temporary and final waste management, drill and exercise requirements, cleanup performance expectations (e.g., x km of oiled shoreline per day), sampling and monitoring, impact assessment, notification and provision of spill information, and stakeholder engagement.

COORDINATION

The intention of the ministry is to establish world leading standards for spill preparedness and response in B.C., while at the same time recognizing existing and ongoing emergency management efforts in various sectors that are consistent with and complementary to overarching provincial standards. For example, the BC Oil and Gas Commission is working with other oil and gas regulators from across Canada to develop the first national standard for emergency management within the oil and gas sector.



Standards and associated response capacity will ensure:

- » A robust capacity to respond to the range of spill incidents that can impact human health and the environment
- » Geographic response plans that consider and address conditions and capacity specific to B.C.'s diverse regions (e.g., terrain, weather, ecosystems, population centres, response capacity, materials)
- » Ability to support and coordinate response with other agencies and across jurisdictions that may affect terrestrial, aquatic, marine and intertidal ecosystems

Mechanism to meet standards

Provincial standards could be met: (1) on an individual (company by company) basis; (2) collectively, through one or more cooperative response organizations; or (3) through a hybrid of options 1 and 2, with obligated parties (i.e., individual companies) able to choose their preferred option. If an industry group achieves standards individually, rather than using a collective approach, greater government capacity would be required to verify standards on a company by company basis.

The ministry supports the establishment of a provincially regulated, industry funded spill response organization for industry sectors that represent significant spill risk. The spill response organization would be required to meet provincial planning and response standards. These would include the responsibility to ensure that region-specific spill response capability and capacity exists, develop and maintain geographic spill response plans to ensure rapid and effective response to spills, and conduct regular drills and exercises to test and verify equipment, training and plans.

The ministry is seeking comment on the suitability of this mechanism for B.C., the range of activities that a provincially regulated response organization would cover and on the next steps that should be taken to consider options and further develop one or more industry funded spill response organizations for B.C.

It is envisioned that funding arrangements for a provincially regulated response organization would be determined and administered directly by the membership of that organization.

2 Developing effective and efficient rules for restoration of the environment following a spill

In the event that provincial environmental resources are impacted as a result of a hazardous material spill, a policy on restoration and public restitution for loss of use is needed. The ministry intends to bolster its policy from one of "removal and remediation" to a more formal process that includes restoration of damaged species, habitats, and loss of public access and use. This process, known as natural resource damage assessment, is well established in neighbouring jurisdictions in the United States ([Washington State](#) and [Alaska](#)).

LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BRITISH COLUMBIA

The ministry's intention is to develop this policy in collaboration with stakeholders, to both establish a predetermined formula to assess damages to the environment for the majority of hazardous material spills and to establish a more in-depth research based process (that either the province or the spiller can elect) for assessing costs of more significant spills. This policy would provide greater certainty to both industry and the general public and would reinforce the polluter-pay principle.

The ministry is seeking stakeholder feedback on this intended policy development.

3 Ensuring effective government oversight and coordination of industry spill response

Institute a fair and efficient funding mechanism

The ministry is considering establishing a funding mechanism that ensures an adequate level of annual funding for land based spill preparedness and response based on spill response regime principles (including recognition of risk, responsibilities and the benefits of prevention and preparation). In accordance with the polluter-pay principle, funding should be fair across affected industry sectors. The funding mechanism should address the degree of risk and potential impacts associated with different sources and types of spills – including spills involving the bulk transport of hazardous materials (chemical and hydrocarbons), spills of other types of materials that pose a risk to the environment, and spills of fuel used for propulsion (i.e., vessels, locomotives, transport trucks). The funding would be used for two specific purposes: 1) establishment of a provincial spill response fund; and 2) increased staff and prevention, preparedness and response capacity.

Some examples of fees and amounts levied in other jurisdictions are provided in Appendix A.

Establishment of a provincial spill response fund

A portion of any levies received could be dedicated to establishing and maintaining a provincial spill response fund to cover operational costs incurred by the province in monitoring, augmenting or taking over a spill incident response. The ministry is considering establishing such a fund – supported by industry levies. Some neighbouring jurisdictions have set a maximum limit of \$50 million, with levies suspended when the response fund meets that limit (see Appendix A). Rules governing the amount and purpose of this fund would address appropriate uses of the fund, such as provincial staff time and equipment usage, contract fees for response or assessment activities, and environmental restoration.

Increased staff and prevention, preparedness and response capacity

Effective government oversight is necessary to ensure public confidence in B.C.'s spill response regime. The Ministry of Environment's Environmental Emergency Program could be strengthened to ensure spill prevention and preparedness is adequate to address growth in the industrial activity in B.C.

LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BRITISH COLUMBIA

Additional program staff and resources could be dedicated to such activities as:

- » Liaison and training support for provincial spill incident management team members, First Nations, local and regional response agencies and organizations
- » Development and dissemination of standards, plans and protocols for prevention, preparation and response
- » Monitoring and compliance activities
- » Spill related research and incident reviews
- » Baseline data acquisition and maintenance
- » Spill response equipment and tools

The ministry is seeking comment on the mechanisms – linked to the production, transport and storage of petroleum products and other hazardous materials – that could be used for collecting funds to support B.C.'s spill preparedness and response regime. Comments are also being sought on the principles by which fees can be collected and used in a fair and efficient manner – relative to the spill risks presented by different industry sectors.

PROVIDING COMMENT

The ministry intends to proceed with its intentions and prepare recommendations for consideration by the Minister through 2012 and 2013. Comments regarding the ministry's intentions are being solicited and will be carefully considered in the development of the province's spill preparedness and response policies and capacity.

The intentions paper and response form for providing comments to the ministry, as well as further information and links to related legislation, are posted on the ministry's website. The information can be accessed on the [ministry's consultation webpage](#), or from the [Ministry of Environment homepage](#) by following the [Environmental Emergency Program link](#).

Those interested are invited to submit comments on the ministry's intentions. All submissions will be reviewed for inclusion in a consultation summary report and comments will be treated as confidential by ministry staff and contractors when preparing consultation reports. Please note that comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information request is made under the *Freedom of Information and Protection of Privacy Act*.

LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BRITISH COLUMBIA

If you have any questions or comments regarding the consultation process, review the information posted on the ministry website, or contact Cindy Bertram of C. Rankin & Associates, who has been contracted to manage consultation comments, at:

EMAIL: cindybertram@shaw.ca

MAIL: PO Box 28159
Westshore RPO
Victoria B.C. V9B 6K8

FAX: (250) 598-9948

Thank you for your time and comments!

Comments to the ministry should be made on or before February 15, 2013.

APPENDIX A: Spill response program funding in neighbouring jurisdictions

The ministry has undertaken a review of spill response program funding mechanisms in neighbouring jurisdictions (Alaska, Washington, Oregon, California, Hawaii and Alberta) to provide context for the review.

The legislative and administrative framework for preventing and responding to environmental spills is specific to each jurisdiction, however U.S. jurisdictions generally have legislated industry funded mechanisms implementing the polluter-pay principle. U.S. jurisdictions also commonly have separate oil spill prevention response accounts, as well as separate procedures for assessing damages and collecting damages from the spiller.

Both the U.S. and Canada have a federal program addressing marine oil spills. The U.S. Federal Government oversees the Oil Spill Liability Trust Fund for Marine Oil Spills. A tax of 8¢/barrel of oil produced or imported is charged to maintain this fund. In Canada, the Maritime Pollution Claims Fund supported by a 15¢/tonne (2¢/barrel) levy on shipments by sea and movement of oil by water within Canada was in effect between 1972 and 1976. No levy has been charged since 1976. In 1989 the Ship Source Oil Pollution Fund was created and established by a transfer of \$149,618,850 from the Maritime Pollution Claims Fund.

State of Alaska – Department of Environmental Conservation, Spill Prevention & Response Program

The Oil and Hazardous Substances Release Prevention and Response Fund in Alaska is based on a tax on crude oil production of 5¢/barrel (4¢ is allocated to a “prevention account” and 1¢ is allocated to a “response account”). Cleanup costs incurred by the state are recovered from the spiller and allocated to the prevention account, as well as fines, settlements and penalties. The surcharge allocated to the response fund is suspended when the response account reaches or exceeds \$50 million. Additional information is available at dec.alaska.gov/spar.

State of Washington – Department of Ecology, fish & Wildlife

A 5¢/barrel tax is applied to the owner of the oil product that is received into a storage tank by a vessel at a marine terminal (4¢ is deposited into the Oil Spill Prevention Account (OSPA) and 1¢ is deposited into the Oil Spill Response Account (OSRA)). The department seeks reimbursement for all response costs from the oil spiller. These funds are also supported by a 16.6% tax of motor vehicle certification.

Washington also charges a 0.7 % tax to handlers of any toxic substance in the state, including pipelines and railways, which goes to various hazardous material and contaminated sites programs in accordance with the Model Control Toxics Act (MCTA).

LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BRITISH COLUMBIA

The OSRA is used exclusively for costs associated with responses to oil spills in water that are likely to exceed \$50,000.

Additional information is available at www.ecy.wa.gov/programs/spills/spills.html.

State of California – Department of Fish & Game, Office of Spill Prevention and Response

The Oil Spill Prevention and Administration Fund supports the Oil Spill Prevention and Response program and is currently supported by a 6.5¢/barrel tax assessed on petroleum products at marine terminals and a biennial fee for all non-tank vessels up to \$3,250 (USD) per vessel.

The Oil Spill Response Trust Fund is used to clean up oil spills in the marine environment and is supported by a 25¢/barrel tax (that was assessed in 1991) on petroleum products at marine terminals to maintain a Trust Fund of \$50 million (this fee is presently not being charged).

Additional information is available at www.dfg.ca.gov/ospr.¹

State of Oregon – Department of Environmental Quality, Land Quality Division

The Marine Spill Prevention Fund is supported by a \$70 (USD) per trip levy on cargo vessels and tank barges and \$1,200 (USD) per trip levy on tank vessels, \$5,900 (USD) annual fee applied to petroleum handling facilities, a daily fee for dredges and an annual fee for facilities and pipelines receiving fuel from tank vessels and barges. A Hazardous Substance Remedial Action Fund is supported by a graduated per tonne fee on disposal of hazardous waste.

Additional information is available at www.deq.state.or.us/lq/cu/emergency/index.htm.

State of Hawaii – Department of Health, Office of Hazard Evaluation Emergency Response

The program is funded through an environmental response tax of 5¢/barrel of petroleum product sold by a distributor, and fines and penalties for environmental violations.

In total, a tax of \$1.05/barrel of petroleum product sold by a distributor is charged. This tax is divided among various government funds.

Fees are also collected on the storage of hazardous materials (\$100/year) and shared between emergency planning bodies.

Additional information is available at hawaii.gov/health/environmental/hazard/spill.html.

¹ California has a bill pending to increase fees to 6.8¢/barrel and \$3,500/vessel

Province of Alberta – Emergency Response Program

The Energy Resources Conservation Board, a quasi-judicial agency of the Government of Alberta, uses a cost share model with industry and government contributions addressing spill preparedness and response. The Board regulates several aspects of the energy sector including the requirement for petroleum producers to either have their own emergency response equipment and plan or to join a cooperative group. Western Canadian Spill Services is the only cooperative at this time. Government supported spill response is provided through the Alberta Environment Support and Emergency Response Team (AESERT). AESERT would be engaged in the event of a major spill event and has the authority to take over a spill response event.

Additional information is available at www.ercb.ca/safety-and-compliance.

Note: In western Canada, industry funds Western Canadian Spill Services (WCSS) which addresses petroleum sector spill prevention and response. This voluntary industry organization offers training and maintains spill contingency plans and strategically placed Oil Spill Containment and Recovery units. WCSS has annual revenues and expenses of about \$1.6 million to provide training, support development of spill contingency plans and maintain regional and specialty spill response equipment. WCSS relies primarily on contractors to provide services.