



LAND BASED SPILL PREPAREDNESS AND RESPONSE IN BC

POLICY INTENTIONS PAPER FOR CONSULTATION

SUMMARY OF PUBLIC COMMENTS

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Land Based Spill Preparedness and Response in BC Review

Summary of Public Comments

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Land Based Spill Preparedness and Response in BC Review

Introduction

The Province of British Columbia (BC) is committed to a world leading preparedness and response regime for land based spills, as expressed most recently in BC'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 BC'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 report is a summary of stakeholder comments received as part of the consultation process.

Background to the consultation process

An intentions paper was posted for public review and comment on the ministry's website (www.env.gov.bc.ca/epd/codes/spr_eep/response.htm) in November 2012. The intentions paper provided background information regarding BC'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 BC, as well as outlining the process for providing comment to the ministry. A separate response form for providing comments or suggestions to the ministry was also posted on the website.

Purpose and format of the *Summary of Public Comments* document

This document has been prepared for the Ministry of Environment by C. Rankin & Associates, contracted by the ministry to independently receive, compile and review feedback on strengthening spill preparedness and response in BC.

The complete set of responses received through the consultation process has been compiled and passed to the ministry for detailed review and consideration. All comments and references submitted through this process, through independent submissions and through direct consultations with stakeholders, will be reviewed and carefully considered by the ministry.

The summary of comments is arranged by topic as presented in the intentions paper and reflects comments received from November 2012 through February 2013.

Description of responses received

Over eighty responses to the intentions paper were received (by e-mail, fax and attached file), and have been recorded for this compilation of stakeholder comments. About half of the respondents identified themselves as working in an industry sector or as an association with an interest in spill prevention and response. Other respondents included representatives of local and federal government agencies and environmental and community groups. Many of the responses included substantive comments or submissions to supplement responses to discussion topics set out in the intentions paper. A number of comments by individual respondents related to specific proposals for petroleum product pipelines or related projects. These comments have been compiled and passed to the ministry for consideration.

Summary of Public Comments

1. Guiding principles

BC's land based spill preparedness and response regime is guided by the following principles (see page 4 of the intentions paper):

- ◆ The polluter-pay principle
- ◆ Emergency management is a shared responsibility
- ◆ The level of emergency preparedness is commensurate with known risk
- ◆ Emergency planning and response is in accordance with accepted protocols and standards
- ◆ Response strives for a net environmental benefit
- ◆ Response decisions are based on fairness and transparency
- ◆ The primary role of a government is to demonstrate and apply governance

Response Form Question 1.1: Do you have any general comments regarding the principles guiding BC's land based spill preparedness and response regime?

Many respondents commenting on this topic expressed "general support" or "agreement" with the guiding principles described in the intentions paper. For example, one respondent commented that "planning and application of these principles to their full extent would greatly improve BC's ability to effectively respond to emergency spill events".

A number of respondents commented that additional clarity or further detail is needed about how the ministry applies the principles. Several respondents also requested clarification from the ministry about the scope of the proposed intentions document, asking for example, "does it include just terrestrial habitat [or] aquatic habitats [as well]?" and "is this intentions paper targeting all BC pipelines... or the proposed heavy oil pipelines?".

Several respondents wished to emphasize a distinction between "world class" and "world leading [spill preparedness and response standards]". One respondent, for example, commented that "[our organization] supports the objective of 'world-class outcomes' for land based spill preparedness and response". Another respondent suggested "utilizing the term 'comprehensive' [rather than 'world leading'] which would be defined as all encompassing and industry leading [standards]".

A number of respondents expressed concern that any standards identified or developed by the ministry not duplicate existing regulatory standards and oversight and not overstep the jurisdiction of the ministry. For example, one respondent commented that "the [intentions] paper appears to assume jurisdiction for areas of spill response that are federal". Another respondent provided the following comment: "for pipeline operations, the overseer of emergency preparedness and response is the provincial or federal Regulator – the Pipeline industry is audited to the standards set out in regulations – having the Ministry of Environment or BC government as an additional overseer will create redundancy and inefficiencies in the

application of different, yet similar standards – we see no need for an additional level of industry oversight”.

Additional specific comments on this topic included:

- ◆ “Overall, the role of industry in the guiding principles is not well defined – the specific applications of how governance would be applied is lacking”
- ◆ “The rationale for BC to lead the world in spill preparedness is not clear – a spill preparedness and response system needs to meet a set of criteria to be effective”
- ◆ “We should look to other countries around the world that have set the highest standards”
- ◆ “We strongly recommend that the government proceed expeditiously with an objective ‘gap analysis’ to clarify the differences between current systems [and] the world class objective”
- ◆ “[Our] industry is not supportive of the ministry’s intention to establish a provincially regulated industry-funded spill response organization to oversee spill issues and address incidents in British Columbia”
- ◆ “Strict public oversight of any existing pipeline... is essential”
- ◆ “Additional regulation appears unnecessary – industry members have practices for spill preparedness and response as part of their environment health and safety management system, which satisfy current regulations... new requirements imposed on industry would result in unnecessary additional work and costs”
- ◆ “It is recommended that the government of BC broaden its strategy for public engagement [in reviewing land based spill preparedness and response standards]”

Response Form Question 1.2: Are there any gaps in the principles or principles that you feel are not appropriate?

Respondents provided detailed comments and suggestions regarding individual principles, as well as general comments on perceived gaps in the list of principles used to guide the ministry. Respondents commented most frequently on the “polluter-pays” principle and the principle that “response strives for a net environmental benefit”. Comments related to each principle, as well as those addressing perceived gaps in the principles, are provided below.

Gaps in the list of principles

Comments or suggestions with respect to gaps in the list of principles included:

- ◆ “There is not a strong enough statement of the role of primary prevention as part of spill preparedness response... the province needs to consider how best to prevent spills as a priority and then integrate such plans with spill response measures”
- ◆ “There is no ‘pollution prevention’ (P2) component... no mention of public involvement, communications, or consultation... nothing regarding process for ‘closure’ on spill site... no mention of monitoring response performance... [and] no component of continuous improvement (i.e., post response lessons learned)”
- ◆ “It would be helpful to include a prioritization of purpose of the spill response – e.g., [protection of human life, human health] [protection of domestic animals] [protection of

wildlife] protection of environmentally sensitive areas, protection of environment, protection of property”

- ◆ “Missing principles... environmental response capability must be real and affordable, costs to the users for preparedness and response must be fair and equitable [and] those contributing to the risk must also contribute to the costs of a preparedness”
- ◆ “There is no mention in the Federal Responsibility section of the Constitutional Responsibility to consult with First Nations on any development that will impact their traditional lands or the natural resources upon which they depend”
- ◆ “An additional principle could be added showing the desire to utilize existing programs and regimes where they meet the goals of the program – stakeholders will want to know that this is not a process to recreate something that already exists and is proven to be effective”
- ◆ “There should be a clear guideline demonstrating that if the risk is unacceptable or appears to be unacceptable then the impacts should not be just balanced against net benefits on cost, but... that the projects should be [considered] unacceptable and will be rejected”
- ◆ “The government should have heavy fines and infractions principles – not only to charge if something does go awry but to hopefully keep them from doing anything out of line”
- ◆ “We... feel strongly that as a provincial plan it should include protecting human health... we recommend an additional guiding principle... ‘planning and response strives for net human health benefit’ ”
- ◆ “A key principle must be to inform everyone who could be in harm’s way... I don’t see anything about immediate and widespread public communication, informing people who may be affected, or have their health affected by any hydrocarbon spill”
- ◆ “The stakeholders need to be defined, and what involvement would be expected from a non-responsible vs. responsible stakeholder (i.e., financial support, decision maker, consultation, etc.)”
- ◆ “Subsidiary issues include the use of good science and risk-based decision making throughout all planning and response processes, particularly when required in sensitive or regionally diverse locations”
- ◆ “Detail [is lacking] regarding implementation [of the principles]”
- ◆ “Placing spill response responsibility upon a Third Party [i.e., an industry-funded organization] may lead to potential joint liability issues”
- ◆ “Guiding principles should include ‘Precautionary Principle’ whereby the industrial and commercial sectors ensure sufficient funding, on-site containment and mitigation measures, resource, and training are in place to address and respond to risks posed by their products”
- ◆ “Education is important... to prevent spills and deal with chronic spillage of a wide variety of substances into watercourses and lands”
- ◆ “There should be a principle related to an adaptive management approach as a systematic process for improving environmental management policies and practices”

The polluter-pay principle

Many respondents provided comments regarding the “polluter-pay principle”. Frequently, respondents suggested that it would be better to refer to this as a “user-pay principle” to reflect the specific context of spill prevention, as well as response. While respondents commonly recognized or expressed support for the principle, they often differed in how the principle should be defined and applied. For example, one respondent commented that “[while] we fully support that industry should fund the costs for preparedness and... for specific spill response... we do not endorse industry directly funding government’s primary role of governance... these costs are already funded through the established corporate tax regime”. In contrast, another respondent recommended that “any company... wishing to produce or operate in this province must guarantee 100% financial responsibility with no time limits to financial costs, to environmental cleanup and damage... so taxpayers are never liable for... clean up, ongoing, as well as after accidents and spills”.

Specific comments or suggestions regarding the polluter-pay principle included:

- ◆ “[The] principle must include... spill preparedness costs, including costs to Local Governments for increased Fire and Rescue capabilities to respond to new risks”
- ◆ “The first tenet of ‘the polluter-pay principle’ is of utmost importance, and needs to be applied across all levels of response, including wildlife response”
- ◆ “[Our company] supports the established polluter-pay principle and believes all companies who are licensed to operate in the Province of British Columbia should be accountable for the full cost of the response, remediation and reclamation activities associated with incidents which impact the environment, the public and their livelihood”
- ◆ “For polluter pay, it is unclear what exactly... this entail[s] and how this is costed”
- ◆ “UBCM members recently endorsed resolution 2012- B122, which supports this principle – specifically the resolution asked that legislation be created to require [1] that liability for cargo on a ship be the responsibility of both the carrier and the one who sold the cargo... and [2] that shippers of dangerous goods and cargo, as well as manufacturers... pay into an emergency fund designed to clean up”
- ◆ “The document appears to define the polluter-pay principle as ‘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’ – this is not an appropriate explanation or definition – the province should use a more widely recognized [definition]. [where] the party responsible for a pollution incident pays for the damage done, including damage to the natural environment”
- ◆ “Polluter pay is essential and must have clear strong guidelines and enforcement – payment must... include wildlife cleanup & rehabilitation and losses of fishing & tourism revenues”
- ◆ “Unknown polluters or ‘mystery’ spills are also common – a mechanism for funding of full response operations must also be sought for these events”
- ◆ “The definition of polluter-pay [should] be more carefully chosen so as not to imply that industry poses a risk to the environment and public safety”
- ◆ “Limiting [this principle] to only industrial and commercial limits the scope – all who have the potential to pollute must be included in this definition”

Emergency management is a shared responsibility

Comments regarding this principle included:

- ◆ “Emergency management being shared responsibility between stakeholders is interesting; however, this seems counter to... ‘polluter pays’ – if a stakeholder is not a contributing responsible party, why should they share financial burden?”
- ◆ “[This principle is of] concern... when local government has no legislative or planning control over major projects in their jurisdiction – local governments cannot be expected to pass on costs to local taxpayers for large projects (such as hydrocarbon pipelines) that are reviewed and approved by senior government agencies, and are specifically exempt from Local Government approval – if local governments [are] expected to share in the responsibility for emergency management of land based spills, it would require significant financial and staffing resources from BC communities... local governments... need to be provided with adequate resourcing from the industry funded framework as well as liability protection to cover all costs associated with the emergency response... [UBCM] resolution 2006-LR6... asked that local governments be compensated for any local resources utilized during the response and restoration period of an environmental emergency ”
- ◆ “[This principle] does not reflect the current situation whereas local governments are left to respond to 90% of all spills”
- ◆ “The idea of [this principle] is very positive – [a] framework must be developed to ensure that liability coverage and indemnity process to ensure that this shared responsibility may be supported by all of your potential business partners – look to Transport Canada’s CBRNE program for similar framework”
- ◆ “Industry is regulated to have the accountability and capability where small businesses, the public and other stakeholders do not have comparable regulation – in general, industry personnel are trained and have the appropriate equipment to safely respond/contain and control a spill”
- ◆ “There are too many companies and yet unnamed parties in holding companies involved, [in the transport and potential spill of environmentally damaging substances] and one party... will not guarantee 100% responsibility and unlimited liability with no financial or time limits, for clean up... who is financially liable in disastrous spills... taxpayers should never be on the hook for one dime of clean up or damage to our environment”
- ◆ “Emergency management MUST have CLEAR AND INCLUSIVE lines of responsibility including, in some areas, non-government groups (e.g., rehabilitators of wildlife) [and] First Nations responders”
- ◆ “Mystery spills, when the source of pollution cannot be easily determined, will require proactive intervention and regulatory control independent of the funding model in place”
- ◆ “Please define ‘shared responsibility’ and what are the means to assume one’s ‘share’ of responsibility”
- ◆ “If the responsibility is truly ‘shared’ then funding, training, etc. must also be shared to ensure response capacity is adequate”
- ◆ “Programs and standards that are in place with [our] association members... have been recognized by government as being self-regulating with a reduction in regulatory burden and great efficiencies as we work together”

The level of emergency preparedness is commensurate with known risk

Comments regarding this principle included:

- ◆ “The intentions paper... is relatively quiet on response [in relation to risk] – response... includes government resources... response and level of resources needs to be commensurate with the known risk regardless of the level of response by the polluter”
- ◆ “Level of preparedness MUST plan towards extreme events, given increasing size of tankers and levels of transportation of oil and chemicals by rail and truck – this must include non-toxic oils (e.g. Linseed oil) which can be equally damaging to wildlife and the environment”
- ◆ “The actual level of risk that is acceptable should not be determined by the industry; it must be a decision of the government but only after meaningful consultation with the communities involved”
- ◆ “Included in any risk analysis should be a review of consequences – what’s at risk from a spill (environmentally, socially and economically) – similar to how BC has a no nuclear policy, it should have a no tar sands policy given the potential impacts of a spill on existing jobs, cultures, and ecosystems”

Emergency planning and response is in accordance with accepted protocols and standards

Comments regarding this principle included:

- ◆ “Specific standards were not referenced in the document – a new National Standard on emergency preparedness and response is currently underway through the Canadian Standards Association (CSA Z246.2) – [our company] recommends that whichever standards are adopted should be developed/agreed upon in cooperation with industry”
- ◆ “Which are ‘accepted protocols and standards’ – Canadian, BC, Norwegian?”
- ◆ “Emergency Planning MUST look to the future in planning and execution of response – current methods are of general low efficiency and response must be IMMEDIATE following any spill”
- ◆ “Revise wording to include ‘... as set by government and industry’ – this recognizes the contribution of industry’s commitment to continuous improvement and... development and adoption of best management practices that exceed current standards”
- ◆ “Don’t rely on the industry to keep its own protocols in place – short-cuts and other money-saving practices will always occur if [industry is] not held accountable at all times”
- ◆ “Industry would not agree that all response protocols are ‘proven’ or ‘accepted’ – inevitably, there are jurisdictional variations [for example], BCERMS is not harmonized with Alberta ICS”
- ◆ “There is NO mention at all of preparedness for handling and rehabilitating wildlife... wildlife response should meet internationally recognized standards and protocols and when no polluter can be identified, there should be [a] contingency [protocol and funding in place]... currently... the lack of a clear responsible party or polluter-funded response results in the termination of wildlife response efforts... it may also result in little or no compensation for wildlife response operations – this is inconsistent with international standards of wildlife response and with the goal of world leading spill preparedness and response”

Response strives for a net environmental benefit

Many respondents commented on this principle. Respondents differed in their interpretation of the ministry's intent. Some expressed support for the principle of "ensuring more damage is not created through the response efforts". Other respondents viewed the principle more broadly, recommending, for example, that "there should be no net loss [to the environment]" as a consequence of any spill and associated response.

Comments regarding this principle included:

- ◆ "[Our organization] would appreciate clarification of the term 'net environmental benefit' – in our estimation, the goal should be 'restoration' provided that no additional or unintended harm is likely to occur"
- ◆ "[Our organization] and its members are not supportive of the principle that strives to achieve a net environmental benefit in the event that there is a release to the environment – as responsible corporate citizens with a deep commitment to sustainability, we are fully committed to restoring the environment to its condition prior to an incident or spill and will implement environmental monitoring programs to ensure that remediation efforts restore the valued ecosystem components of an affected area – in all cases the effect of a spill will either be fully restored and/or affected parties will be mitigated"
- ◆ "The term 'net benefit' suggests that the BC government may strive for efforts beyond that which may be practicable or technologically achievable – this objective does not align with federal and provincial goals of risk management – the goal being protection of human health and the environment... Net Environmental Benefit Analysis (NEBA) applied to oil spill response is the process of considering advantages and disadvantages of different spill response options (including no response) to arrive at a spill response decision resulting in the lowest overall environmental and socioeconomic impacts"
- ◆ "'Net environmental benefit' should be compared to pre-project-approval baselines... 'overall response outcome is beneficial to people, property and the environment' sounds like a compromise position, should read more like 'response outcome should be returning the environment to a pre-spill condition or better' "
- ◆ "Reasonable cost ought not be the determining factor for the objective of a 'net environmental benefit' – rather, the determination for the overall scope of response actions ought to be based on credible science and the principle that the environment should be returned to the condition it held prior to the event – response operations should stop short of meeting this goal when the actions required to do so would cause greater environmental damage"
- ◆ "This is an important principle... it is critical that government is prepared to provide timely approval for responders to implement... measures [such as in-situ burning or use of dispersants] when the conditions are appropriate – likewise, responders require clear direction regarding endpoints for shoreline cleanup".
- ◆ "'Strive' is vague – there should be set standards to be achieved and a commitment to go above those standards"
- ◆ "Response should include a long-term 10-20 years monitoring program"

Response decisions are based on fairness and transparency

Comments regarding this principle included:

- ◆ “The concept... is admirable if it is achievable”
- ◆ “Please define fairness (to whom?)... just commit to a clear protocol of communication with the public and allow access to data”
- ◆ “[Terms such as] ‘unreasonable impacts’ and ‘reasonable costs’ depend on the criteria [used to determine reasonable] as they are subjective... [our organization recommends that the ministry provide] definitions to assist stakeholders with context”
- ◆ “[This principle] is important for all parties, including third-party recipients of contamination – affected third parties (private land owners, institutions, governments) must not be restricted access to compensation due to onerous legal processes, a spiller must be responsible for all costs, including legal costs of third parties”
- ◆ “The immediate question is [fairness] to whom? – in this particular case the public would do well to suspect that the ‘whom’ will be the spiller”
- ◆ “What ‘economic considerations’ will be made in response decisions? – economic decisions cannot override the need for environmental social considerations, or the polluter will have opportunity to externalize the economic risk related to handling polluting substances”
- ◆ “Reasonable cost and inclusiveness in response decisions is, as stated, a primary principal of effective incident management – ‘reasonableness’ must be defined by government, and based on known risks, the actual costs of professional oil spill response planning, training and cleanup... cost should not be the determining factor in these areas – pre-planning, training, response drills, effective policy and policy administration hold the greatest benefit for ‘reasonable cost’ ”

The primary role of government is to demonstrate and apply governance

A number of the comments made by respondents on the principle of “shared responsibility” also related to the role of government. Comments on this specific principle included:

- ◆ “[Our company] agrees that the primary role of a government is to demonstrate and apply governance”
- ◆ “We are not at all satisfied that risk can be defined by the proponent”
- ◆ “With the amount of downsizing occurring in the Government, I do not foresee an increase in staff”
- ◆ “In the discussion of Federal Responsibilities, it might be appropriate to note recent significant staff and resource cuts in the lead agencies: Canadian Coast Guard, Fisheries and Oceans Canada, Environment Canada, the potential impacts on spill response and oversight”
- ◆ “Government MUST be active and have responsive personnel available at all times to institute responsive measures”
- ◆ “The issue for me is determination of priorities by the Government for the public – if these policies are set based on policy that is the result of meaningful consultation... that is OK – I certainly don’t want ‘the spiller’ making these decisions”

- ◆ “This role should be expanded to encompass the idea of responsible action by the government when the polluter cannot be identified or is unable to act appropriately... [and] be tied to imminent danger to life or the environment – the expanded role of government could be a separate guiding principle based on the case of unknown polluters”

Response Form Question 1.3: Do you have any suggestions for strengthening the effectiveness of the principles?

A number of the respondents who commented on this topic pointed to the need for collaboration and clear roles among the parties involved in spill prevention and response. For example, one respondent suggested that the “BC Government... work with the Federal Government to understand the boundaries of jurisdiction and where there [are] grey areas... firmly establish who will be the lead regulator and moderator for stakeholders”. The respondent further noted that “the intertidal... will likely be the most contentious clean up zone”.

Additional comments or suggestions for strengthening application of the principles included:

- ◆ “Government [needs] to hold Industry financially, and physically responsible for having plans in place in the event of a spill, a response ready and a contingency fund commensurate with worst case scenarios ready”
- ◆ “Principles are effective if they are based on sound science, take into consideration risk (actual vs. perceived), and require area-specific requirements to deal with varied risks – risk management should also be considered which allows flexibility and cost effective solutions, including alternative technologies and methods in response – each incident is assessed, objectives and priorities are established, and the onsite commander makes response decisions based on the assessment and plan – all incident responses should be based on the principles of the Incident Command System and more specifically the effective use of Unified Command”
- ◆ “We suggest that the province add a human health protection... component to its oil spill prevention and response plan – perhaps [developed in] partnership with the Ministry of Health”
- ◆ “Consistent federal and provincial legislation enacted for the inclusion of wildlife as elements of the environment that must be addressed in spill response”
- ◆ “The concept of institutional risk mitigation particularly of a political nature is a concern in that it suggests spill response capability and quality could become highly subjective; open to the widely varied perspectives of interested parties”

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

A. 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 BC. Standards may include elements such 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 (see intentions paper – paper 7-8).

Response Form Question 2.1: Do you have any comments or suggestions for the ministry to consider in reviewing or establishing standards for spill preparedness and response?

Respondents provided many detailed comments and suggestions on this topic. A number of respondents recommended including a wide range of interests – including “industry, consultants and... other levels of government”, “unbiased scientists and the public” and/or “professional oil spill/oiled wildlife response organizations” – in any process to review or establish standards. Several commented that “a gap analysis is needed... to provide a foundation for identifying the structure and content of... future spill response preparedness plan[s]”.

A number of respondents commented that “overly prescriptive requirements... [are] not necessarily effective”, suggesting that the ministry should instead “set expectations for capability” or “objectives” and “leave [specific direction such as] equipment selection to industry”. For example, one respondent noted that “elements such as cleanup performance expectations... are difficult to establish due to the complexity of environmental factors at a spill” and another respondent commented that “prescriptive standards restrict the ability to recognize conditions at the time of the spill (weather, seasonality) that could impair spill response times and capacity”.

Many respondents expressed support for “robust”, “world class” and/or “effective” standards for spill preparedness and response. One respondent, for example, commented that “an appropriate goal [would be] a system that is robust, sustainable, cost effective and that has resources prepared and readily available to support unintended releases that can be harmful to health, safety, and the environment”. The respondent noted that “[our company] supports an industry funded response organization that focuses on preparing both equipment and personnel to effectively respond to a spill – industry should be defined as anyone who could potentially pollute the environment (i.e., rail, transportation, oil and gas, pulp and paper, lumber, chemical, mining, manufacturing companies etc.)”.

Several respondents emphasized the importance of spill prevention and mitigation policy and procedures, as well as response standards. One respondent, for example, commented that “prevention is the best cure”. Another noted that “although the ministry’s [current]... guidelines for industry emergency response plans... separate prevention/mitigation from preparedness

and response... links to an organization's overall emergency management plan... [are] the foundation upon which an emergency response plan is contingent".

A number of respondents pointed to existing standards that could or should be considered in any review of BC standards. Recommendations include:

- ◆ "Internationally accepted protocols for oiled wildlife response... Washington and California are good examples"
- ◆ "In Canada, the CCME [Canadian Council of Ministers of Environment] has established environmental standards which have been customized and implement[ed] within current provincial regulations"
- ◆ "Any consideration of the development of the development of spill response planning should consult the Material Safety Data Sheet (MSDS) on that substance – MSDSs are information sheets that are required by law to be available to workers and first responders"
- ◆ "Canada has an emergency preparedness and response standard CAN/CSA-Z731-03 (R2009) – our suggestion is to use such a standard as a basis [to follow in developing] response plans"
- ◆ "Standards already exist voluntary or regulated for all of the major stakeholder groups. Pipeline (NEB, ERCB), Transportation by Road, Rail (TEAP III, Responsible CAER, Responsible Distribution) Dangerous Goods in storage (E2 – Environment Canada)"
- ◆ "Internationally accepted protocols for oiled wildlife response that BC should be aiming to achieve or surpass [include]... US Fish and Wildlife Service - Best Practices for Migratory Bird Care During Oil Spill Response (2003), International Petroleum Industry Environmental Conservation Association - A Guide to Oiled Wildlife Response Planning (2004), Oiled Wildlife Care Network Protocols for the Care of Oil Affected Birds (2003), Oiled Wildlife Care Network Protocols for the Care of Oil Affected Marine Mammals (2003)"
- ◆ "Existing standards for responders (i.e., CERCA and the TERSP auditing standards)... need to be incorporated [and enforced]... consistently... for 'major' spills, contractors should not be allowed to respond unless they meet these existing standards"

Many respondents commenting on this topic provided advice on how a review should be conducted or suggestions regarding the scope and contents of relevant standards. Comments and suggestions included:

- ◆ "The standards [need to] address the complexity of BC topography (i.e., remoteness and access challenges related to BC coastline) as well as the related impacts to cleanup costs and effectiveness" ... "given the geographical diversity of BC applying one set of standards is not practical"
- ◆ "Review current standards in place... determine the ministry's role in these regulations, assist in the development of new or enhanced standards that are integrated with current regulations... [and note that the] ministry does not enforce standards... [they] are enforced by the current regulatory agencies mandated to provide oversight to industry"
- ◆ "Any regime should be a BC-based model that is informed by other 'tested, tried and proved effective' regimes"

- ◆ “We recommend that the Province use the model upon which federal marine oil spill response regime is based... (1) break the model into three categories – preparedness, response, remediation (2) use planning standards not prescriptive standards for each category... (3) establish as part of preparedness ICS as the standard for incident management... [and] ensure standards consider the availability and benefit of mutual aid – a response organization may not need to own a dedicated piece of equipment if they can demonstrate that the equipment can be acquired through mutual aid or contracts (for example, storage, fire boom) in a timely manner”
- ◆ “[Our organization] suggests that a matrix be used for this section that evaluates type of spill, human and eco receptors, region, response time, etc. for each type of spill”
- ◆ “Criteria... used to define industries that pose a significant spill risk [need to be clarified]”
- ◆ “[Our organization] would support an industry led, government or regulator reviewed evaluation of existing spill co-ops to ensure that they are suitable for future development plans”
- ◆ “The standards for spill preparedness and response should deal with both large and small spills... spill preparedness and response standards should separate the required elements for on-site contained spill vs. spills that go beyond on-site to impact off-site third party lands
- ◆ “A review should consider the toxicology, fate and behaviour of substances such as diluted bitumen which [are]... particularly challenging in terms of remediation”
- ◆ “Standards for Response must be stringent, proven by regular coordinated exercises, and maintained to a level that protects human health and the environment regardless of economic restrictions... [standards should] include... a process for integrating/coordinating environmental and human health public communications”
- ◆ “The training component... would need to include a competency component – with the amount of transition in field positions it is difficult to maintain the required level of training for... first responders”
- ◆ “Include [in standards] a plan for addressing public perceptions of risk to their health and addressing questions about the health impact of a spill... standards... [must include] route selection, risk assessment that considers spill scenarios using event (fault) tree analysis for example, engineering design and construction standards to mitigate spill risks, operations and maintenance standards, and finally response standards to an actual spill – the acceptable level of risk for a spill should not be determined by the industry – it is by necessity a determination of the government but only after meaningful consultation with the communities involved”
- ◆ “Prevention – include a surveillance system using early-warning indicators of potential spills/release/rupture and of heightened risk of same – the draft document describes largely a reactionary approach and it would be beneficial to include messaging or content around preparedness that prevents potential adverse effects on the environment or human health”
- ◆ “Prevention and Response – an important part of spill preparedness will be an organized system for reporting, monitoring, and analyzing: actual spills, near-miss events, pipeline structural faults, human operational errors, and other events and incidents that together can better inform preparedness and response – such an intelligence / surveillance system will

need to capture information from the entire pipeline industry and may best be operated and managed by government or a third party outside of the industry – this system will provide in the long term essential information for worker training, mock exercises, evidence based pipeline operation and maintenance, and community education”

- ◆ “Standards for spill preparedness and response need to incorporate fundamental, key components within an emergency response plan... (1) [the] authority... (of the organization) under which it is directed to be maintained and implemented, (2) [an organizational] structure... that identifies specific roles and responsibilities needed to maintain and implement the plan as directed by the plan authority, (3) [the continuous management process]... upon which [the plan] is directed to be maintained, implemented and evaluated [and] (4) accountability... (e.g., status reports and audits) that provides notification to the plan's authority if the plan is not maintained and implemented as directed”

Response Form Question 2.2: To you have any comments regarding the elements that standards should include?

Several respondents who commented on this topic expressed support for, or recommended consistency with, the elements listed in the intentions paper. One respondent, for example, noted that “these [listed elements] are all that are needed... government and industry should work together to establish threshold levels for each element”. Several respondents also recommended “consistency with other jurisdictions (e.g., federal, other provinces)” for industries that are also regulated under those jurisdictions”.

Many respondents voiced concern that standards could involve “taxpayer” or “government” costs and emphasized that “it should be the company that... shoulders the risk... and pays all damages and compensation”. One respondent, for example, recommended “upfront... funding [by industry]... based on recent spill incident costs”. Tempering this recommendation, another respondent noted that “[our company] does not support public restitution requirements or other administrative penalties for companies that take responsibility and work diligently towards complete restoration of impacted sites”.

Specific comments or recommendations on this topic included:

- ◆ “[Our association] recommends building on the current framework of spill *prevention* – for example, working in concert with Transport Canada, aspects of transportation of dangerous goods training could be strengthened”
- ◆ “Establishing response time standards, encouraging and facilitating coordination between entities that have spill response capacity, disposal planning and improved communication within geographically-defined spill response zones appear to be gaps that should be addressed through this process”
- ◆ “The most important element is detection – speed of response means nothing if it takes days to detect a spill... monitoring [remote pipe]lines is a real problem – it would be much easier if existing right-of-ways (road, rail, etc.) could be used these could provide easy access and by definition are already environmentally compromised”
- ◆ “The level of training and frequency and degree of practice must be clearly defined”

- ◆ “Use... existing standards and organizations which create and sustain them – for instance CSA 1600 Emergency and Continuity Management”
- ◆ “Standards that are applicable across industry should be adhered to – no need to reinvent the wheel... refer to CERCA and TERSP auditing standards”
- ◆ “Canadian Fuels Land Spill Emergency Preparedness (LSEP) program for truck transport of petroleum products includes guidance for response preparedness (i.e., including measures to prevent releases), response activation (i.e., guidance for timely deployment of capable resources to an area), response capability (i.e., regular verification), and continuous improvement (i.e., lessons learned)... [and] is funded by industry and [other program] users”
- ◆ “There is much confusion within the Spill Community as to who all needs to be notified – it is usual to call EMBC for all reportable spills, but they do not have a call out plan to notify other affected departments”
- ◆ “Include notification to impacted third parties as well and response requirement to address third party impacts – requirements for minimal product recovery, where applicable, should also be stated for various material types”
- ◆ “Standards should include benchmarking for the effectiveness of spill cleanup – who does it, how is it done, how liability for cleanup is handled”
- ◆ “Baseline ecosystem and species inventory surveys for areas where risk for pollution damage is high, should be part of the standards”
- ◆ “[Information] should be accessible to local governments – a polluter is not always identified or able to pay, and the local government is left with the bill”
- ◆ “Elements [related] to wildlife preparedness and response [need to be addressed, including] planning, notification, reconnaissance, deterrence, pre-emptive capture, recovery, rehabilitation, euthanasia and release”
- ◆ “In addition to those [elements] listed... consider testing of emergency response plans/systems, community consultation/information sharing, reporting and response timeframe expectations, minimum training, equipment (including maintenance)..., procedures [and] a matrix that evaluates type of spill/ human and eco liability versus region (remoteness) and response time for each type of media”
- ◆ “Additional specific elements should be added [to an emergency response plan include... (1) revision control and distribution [sections]... evacuation versus shelter-in-place [procedures]... status report[ing] [of risk management actions], internal and external audits”
- ◆ “Create a database of all areas that are at risk that would include all relevant factors and a detailed initial response plan to expedite spill containment and/or isolation of hazardous product, clean up and environment restoration... environment type and value including historical and/or cultural significance; site accessibility; availability and location of suitable materials, equipment and personnel; logistics of supporting these efforts for each location; availability of trained personnel; protocols for maintaining the required level of training and database accuracy; effects of seasonal weather and/or other extreme weather conditions etc. – once this is [in place] realistic speed of response can be established – if you start with a minimum response time... you may find that some locations cannot be protected adequately so would become ‘no go’ zones”

B. 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.

The ministry supports the establishment of a provincially regulated, industry funded spill response organization for industry sectors who represent significant spill risks (see intentions paper – page 8).

Response Form Question 2.3: Do you have any comments on the effectiveness and efficiency of option 1 (companies meeting requirements on an individual basis)?

Most respondents commenting on this question pointed to concerns associated with the option. Concerns or perceived weaknesses raised by respondents included: “not an efficient use of resources”; “individual companies often do not have the capacity to mount a full response”; “there is a potential for inconsistent responses”; “this option creates potential inconsistencies and greater governance issues”; “may result in a less uniform, timely and therefore more expensive spill response”; and “[potentially] individual companies [could] declare bankruptcy and leave taxpayers with the liability”.

The more limited number of respondents who expressed support for this option noted, for example, that: “this would allow for specialized responses, which would be positive”; “this would be a credible option for companies with sufficient resource capability to be self-supporting”; “on-site contained spill may be best addressed under [this] option... [if] the company has the capacity to respond to spills [of limited size and extent]”; and “since every company’s risks will be different, this seems to be an appropriate tactic”.

Additional comments included:

- ◆ “Even if looked at as a cooperative, individual companies should be reviewed individually by a written standard with an auditing process – this exists through CERCA at this point in time, although the Provincial Government is not involved – remote access areas should include a trigger/capacity to deal with potential spills before transportation of the substance commences – further, companies that will be required to physically remediate spills often do not have technical capacity to ensure [and] evaluate completeness of the work”
- ◆ “Individual companies [may] mask the problems or cover-up wrongdoing”
- ◆ “Higher risk companies need to have their own response capability and... their individual capability should be supplemented by resources that are available from companies that work together collectively (i.e., Oil Spill Cooperative) – this approach has been used successfully in Western Canada since 1972; WCSS [Western Canadian Spill Services] is a spill preparedness organization that offers spill support to our membership, we are not a response organization”
- ◆ “Provincial standards must state there must be ‘one source’ of contact and 100% guaranteed responsibility, as ‘one or more cooperative response organizations’ is ineffective in disasters, for communication, confusion and response errors”

- ◆ “Standards are being weakened at the federal level... provincially, we should ensure that we overcome these limitations”
- ◆ “I do not believe individual companies will invest adequately in preparation to handle a spill”
- ◆ “If the land based spill preparedness and response in BC was to become a collective system, there may be mandated requirements under Transport Canada ERAP, Environment Canada E2 and NEB which will create redundancies and wasteful duplication to meet everyone’s standards”
- ◆ “While it is reasonable to provide an opportunity for individual companies to meet standards, it seems unlikely that the province would have the capacity necessary to properly regulate or oversee this – increasing regulatory capacity to meet this need does not seem to be in the best interest of the province, nor in the best interest of overall spill preparedness and response”
- ◆ “Spill response is highly specialized and some industries and/or companies may have valuable skills and/or resources that should not be wasted....it makes sense to employ a hybrid approach – in order to control this adequately... an independent (industry/company independent) provincially regulated organization [would be needed]”
- ◆ “Consider the legal structure, and limited liabilities of organizations proposing projects which introduce the threat of land based spills – including marine traffic which may require land-based response... if this option is pursued, each company should carry sufficient insurance to cover the maximum potential remediation costs based on a precautionary principle”

Response Form Question 2.4: Do you have any comments on the effectiveness and efficiency of option 2 (companies meeting requirements collectively, through one or more cooperative response organizations)?

Most respondents who commented on this topic expressed support for this option, pointing to benefits or efficiencies associated with a collective approach to addressing spill response. For example, one respondent noted that “leveraging resources to enable preparedness and response to meet health, safety, and environment regulatory requirements is the approach taken by the Canadian Fuels LSEP program... in place to support the truck transportation [including safe handling] of petroleum products”. Strengths or potential benefits of this option identified by respondents included: “may allow for access to more funds and better resources by member organizations”; “may be appropriate for spills impacting larger geographical area (on-site and off-site) as is currently the case with Western Canada Marine Spill Response Corporation”; “it [may] be more efficient for... a larger event... that would activate an Emergency Operations Centre (EOC)”; “would have more credibility”; “would ensure more consistency and an industry minimum standard which would be expected to result in a more effective response”; and “as long as a single responsible party is identified at the beginning [of a spill incident] this option has merits in that it allows for diverse professional involvement”.

Several respondents suggested that “flexibility” is important in any option that may be developed or recommended a hybrid option. Related comments included: “companies should

have the capability of responding to smaller incidents with their own resources and have access to additional resources when needed”; “there needs to be... some methodology to blend smaller companies – think of [an] insurance model – some organizations are large enough to self-insure, most depend on blending risk”; “hybrid... allows for accountability to reside with the industry with audits/spot checks... by an independent body to ensure requirements are met”; and “flexible approaches work best since no two emergency events evolve the same way or to the same degree”.

Additional comments included:

- ◆ “Cooperative response should meet equally stringent standards”
- ◆ “This seems a better option with public oversight – I do not favour at all a private company like Western Canadian Spill Response Corporation to coordinate ‘clean up’ efforts”
- ◆ “Is there an option for companies to self-declare that they will meet standards and then maintain performance bonds – versus regular pooling of risks and costs?”
- ◆ “The most effective and efficient approach would be to have one overarching industry funded response organization that oversaw the preparedness and response capabilities of different sectors/divisions [(1) current marine regime (2) land based oil handling facilities (3) chemical response, and (4) transportation (i.e., truck, pipeline, rail)] – this would include incident management, standards to be applied for each of the sectors, equipment and support resources, call-out procedures; training; and integration with other government agencies and communities... the single response organization approach does not preclude participation of contract[ed] subject matter experts... [and] individual companies should maintain an initial response capability equivalent to the planning time standards required for their particular operation, until the [response organization] is able to mobilize”
- ◆ “[Companies] should be mutually contributing to a collective organization run by government, with union employees”
- ◆ “Expertise in habitat and wildlife protection, rehabilitation and restoration needs to be maintained by the province and paid for by industry”
- ◆ “A spill/disaster response will not be effective unless one central organization takes ownership for all communication (and transparency to [the] public) and response, and this must include a published website for public view, and for public to report any spill sightings and response required... residents must be assured there is a one source contact, so that no excuses are made as to coordination, communication mix ups, and response”
- ◆ “There should be bond money up front to ensure that companies can meet these standards and are able to cover any spills and clean up”
- ◆ “The verities of response options include in-house teams, mutual aid between industry stakeholders and contract response companies – we do not think stakeholders would be in favour of abandon these options for a Provincially run program”
- ◆ “The establishment of one or more provincially regulated, industry-funded response organizations offers multiple opportunities to increase spill response capacity and improved preparedness – a well-planned, well-organized collective would not overburden regulatory agencies to the degree of individual company oversight – a collective would bring together stakeholders and experts from all fields of response and preparedness, allowing for full

coordination and cooperation across areas of expertise in response, including wildlife experts – furthermore, it would formalize relationships within response and planning activities (including the creation of geographic response plans, response plans, wildlife plans, response drills, equipment deployment, etc) – the opportunity afforded by such a collective would result in increased capacity and preparedness and the ability to repeatedly test plans that more accurately reflect the best achievable spill response methods”

- ◆ “The overall capacity of any collective response capacity should be proportionally increased each time a new project is approved – in this way the response capacity grows to reflect a growing risk from new infrastructure”
- ◆ “How does this align with ‘polluter pays’ principle and accountability by individual spillers? Where else is this approach used and has it been effective? How will it be ensured that sufficient funds are available?”
- ◆ “In jurisdictions applying ‘Natural Resource Damage Assessment’ mechanisms, there are independent Government agencies... who establish baseline conditions, develop restoration and compensatory habitat projects – without a fuller understanding of how these NRDA’s will be administered, it is difficult to assess whether this approach will be successful in BC”
- ◆ “[Our company] supports a coordinated effort with trained personnel, effective equipment, proper planning, all working together with responding agencies to prioritize and respond to agreed upon objectives – companies should have a detailed containment plans in place for the initial response to cover the time it takes a response organization to muster personnel and equipment to the spill site – properly trained and equipped response teams should be in place at strategic locations in the province to minimize response times to under some predetermined timeline – these teams should be funded by all industry”

Response Form Question 2.5: Do you have any suggestions regarding the next steps that should be taken to consider options for a mechanism to meet standards and/or further develop one or more industry funded spill response organizations for BC?

As well as recommending continued consultation, many respondents who commented on this topic provided specific comments or suggestions for the ministry. Specific comments included:

- ◆ “The next step should include a gap-analysis of ‘what already is’ versus ‘what is really needed’ – there is also a difference between ‘wanted’ and ‘needed’ ”
- ◆ “An ‘inventory’ should be taken of what already exists of mechanisms for meeting standards – in considering an option, it should not be overly prescriptive and should incorporate what already exists”
- ◆ “Based on the responses received, identify options which the Province would recommend pursuing further [which would include some industry funded spill response models used around the world] through stakeholder discussions”
- ◆ “The steps need to have a very clear and specific timeline or planning drags on too long – there are a variety of agencies across Canada and the US that have this background – California [for example] has well developed response planning in place”
- ◆ “Expand WCMRC [West Coast Marine Response Corporation] inland and form a committee with membership from [target] industries to develop the next steps and establish a board of

directors – develop strategies to quickly mobilize WCMRC resources; including air freight of equipment and people – encourage industry members to bring their resources, people, equipment and expertise to the co-ops and credit them for doing so”

- ◆ “Consider... a task force of industry representatives (from industry sectors who represent significant spill risk)... review the TERSP standards – talk to current third party spill response providers who have gone through audit and those that have not... [consider adopting existing recognized standards] set by national associations such as the Global Response Network for Oil Spills on Water [and the] Canadian Emergency Response Contractors’ Alliance”
- ◆ “Industry and the province should not be the only organizations party to this discussion – many environmental organizations have significant scientific expertise that is highly relevant”
- ◆ “[Our organization] supports the development of one or more oiled wildlife response facilities (ideally both mobile and permanent) and the recruitment of professional wildlife response contractors on retainer”
- ◆ “(1) Determine how standards are to be developed, what organizations/stakeholders need to be involved in the creation of standards to ensure that they are effective... (2) solicit feedback from stakeholders as to the formation, management and structure of a collective, (3) determine funding resources required for regulatory oversight, planning, training, exercises and response activities”
- ◆ “Develop a formal procedure to ensure industry is allowed to collaborate and provide input... determine how the [ministry’s] proposed standards align with current regulations, determine the ministry’s role in current regulations [then determine] the range of activities that a provincially regulated response organization could cover”
- ◆ “Federal and provincial legislation should be developed referencing the required standards of response”
- ◆ “How will federally regulated industries be consulted and impacted?”
- ◆ “Only with a publicly-funded oversight body that must report publicly to the provincial auditor general to effectively provide transparency [will] public concerns on environmental-endangering activity in the province [be allayed]”
- ◆ “All decisions should be far more public... the public should have more say, but more importantly more control”
- ◆ “Spill response standards must be in place before any further pipeline projects [are approved]”
- ◆ “Need to be clear on liability issues, ... look at legislation that would insure responder immunity for all of the sectors including rail, pipeline, truck and marine... and ensure that industry stakeholders and shareholders of the response organization would be protected through legislation, not liable for other sectors’ risks and impacts”
- ◆ “In summary, adopt the TEAP III assessment”

3. 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 is known as natural resource damage assessment (see intentions paper – page 9).

Response Form Question 3.1: Do you have any comments or suggestions regarding the ministry’s intentions to establish natural resource damage assessment policies and guidance for BC?

While many respondents expressed support or conditional support for the natural resource damage assessment process, respondents also frequently requested “additional information” or “further discussion” before committing to the approach. One respondent, for example, commented that while “a holistic approach to dealing with damage and loss of use of the environment clearly the direction that needs to be taken – in depth discussion on what this means and how it would be done... is required – doable and achievable outcomes are what we seek”.

Specific comments on this topic included:

- ◆ “Use [of this]... process in BC will require significant effort in establishing ecosystem baseline data... to [develop] pre-determined formula to assess damages to the environment”
- ◆ “Restoration of any impacted human habitat should also be assessed – we also recommend that houses/dwellings be added to the assessment and response plan”
- ◆ “NRDA is an excellent mechanism for restoration and public restitution – it is worth noting that NRDA is separate from wildlife response activities and is not a means to substitute for the assessment, recovery and rehabilitation of impacted wildlife”
- ◆ “The... process used in Washington State and Alaska focuses on oil spills and does not arguably address spills of other hazardous materials – further thought is also required where the restorative work would be undertaken to address the damage to the environment (i.e., same geographical area or outside the area including applied rationale”
- ◆ “There are more applicable regulatory processes that can be referenced in western Canadian provinces and federally – for example, Alberta uses an equivalent capability target where land is reclaimed but not necessarily restored to pristine conditions – the intentions of ‘net environmental benefit’ and ‘restoration’ are inconsistent with federal and provincial goals of environmental risk management – for example, *Canadian Environmental Protection Act* relies on Science-based Decision-Making, which emphasizes the integral role of science and traditional aboriginal knowledge (where available) in decision making and that social, economic and technical issues are to be considered in the risk management process”
- ◆ “NRDA and resultant actions would typically include direct restoration or rehabilitation of areas impacted by the spilled substances, but consideration should also be made for undertaking alternate (compensation) projects such as the creation of new ecologically value

areas (e.g., wetlands) or restoration of nearby resources – at the onset of the NRDA, there should be agreement from the stakeholders that the purpose of the work is to obtain data to support the NRDA process in a meaningful science-based manner, but that each stakeholder reserves its right to produce its own independent interpretation and analysis of any data collected at solely their own costs”

- ◆ “The term ‘restitution’ appears intended to be above and beyond access/damages, this is an expansive interpretation of the principle [of polluter-pays]”
- ◆ “Remediation has to span decades – assessment should also include... damage to communities affected through the loss of fishing grounds [and] the cultural significance of... losses”
- ◆ “The trucking industry is particularly interested in avoiding a balkanized approach to regulation given that some aspects of trucking are subject to regulation by different agencies at various levels, including the municipal level”

4. Ensuring effective government oversight and coordination of industry spill response

A. Institute a fair and efficient funding mechanism

The ministry is considering establishing a funding mechanism that ensures an adequate level of annual funding for spill preparedness and response based on spill response regime principles. 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, spills of other types of materials that pose a risk to the environment and spills of fuels used for propulsion (see intentions paper – page 9).

Response Form Question 4.1: Do you have any comments or suggestions regarding the institution of a fair and efficient funding mechanism that would be used to establish a provincial spill response fund and increase staff and prevention, preparedness and response capacity?

Many respondents who commented on this topic pointed to existing funds or programs such as the “Canadian Fuels [Land Transportation Emergency Response] program... based on petroleum volumes and number of carrier trucks”, Western Canadian Spill Services (WCSS) and the “Canadian Ship Source Oil Pollution Fund [SOPF]”. Some respondents expressed support for reviewing and/or expanding existing funds “based on the polluter-pay principle”. One respondent, for example, commented that “arguably the [SOPF] has been neglected... since no levy has been imposed to boost the fund since 1976... [and] establishment of a similar fund to SOPF designed purely to deal with land based spills [is] an entirely reasonable objective”. In contrast, other respondents felt that a provincial spill response fund is not needed, commenting, for example, that “[our company] does not agree with the spill fund or to increase ministry’s staff for prevention, preparedness and response – regulators are mandated by law to oversee industry in these areas”.

Several respondents suggested that further consultation and discussion with the applicable industry sectors is needed. Respondents commented, for example, that: “before providing

specific comment on this concept we would appreciate being provided with [more detailed] crash/spill analysis currently being undertaken by the ministry”; “a committee [with government and industry representatives] should be set up to determine [fair funding]”; “[the principle of] ‘shared responsibility’ needs to be better defined and funds allocated accordingly”; and “discussion would be needed on establishing a provincial spill response fund... [as] with the many agencies that audit and inspect our member companies [our organization] would not want to add unnecessary regulatory burden”.

Respondents who expressed support for establishment of a provincial spill response fund cited “increased public concerns regarding liability coverage of responsible parties”, the need “to ensure adequate resources are available for proper response” and “[timely and adequate] funding for response to spills of unknown origin”. Several respondents recommended establishing funds equivalent to those established in neighbouring jurisdictions such as Alaska, Washington and California. One respondent, for example, commented that “the system used in California has proven to be highly effective and is one that would function well in BC – part of its effectiveness is due to the availability of funds in non-spill times, which may then be used for planning and preparedness activities – the net benefit for California has been increased spill response capacity, improved standards, and a reduction in overall spill response costs”.

Additional specific comments on this topic included:

- ◆ “Discussion around the use of fund for increased provincial preparedness and response capacity does not address the [fact that] local government [is] left to address 90% of small spills at its own costs... funding must be distributed to all agencies with a role in spill response – local, provincial and federal governments – commensurate with the costs related to planning spill response, supplying staff and material resources for spill response, training and exercises in spill response, etc.”
- ◆ “A more comprehensive selection of jurisdictions should be taken when reviewing spill funds – the need for spill funds should be better understood so that comparisons are equal... the proposed review should include as a minimum British Columbia, Alberta, and Saskatchewan... as a minimum, the review should identify [twenty factors, including agency staff and responsibilities, number and character of spills, training and response requirements and funding mechanisms]”
- ◆ “Our preference is for any fund to be one that is established and managed outside-of-government with independent oversight – there are several examples within the shipping, oil and gas, and rail sectors that could be used as starting points – structure, governance and duplication are key concerns that would need to be addressed in developing any kind of new fund”
- ◆ “Government role (with regards to oil and gas) is to ensure that industry has spill preparedness and response plans in place, and that role is currently being undertaken by the OGC [Oil and Gas Commission] – the OGC already has industry levies to fund its operations”
- ◆ “[Our association] already funds and supports spill planning and response in its industry sector – the association also acknowledges that not all chemical activities are covered by our association and programs – the concept of ‘user pay’ does become important with these non-participants – [our association] however, is not in favour of developing a fund that would be used for general operations of the ministry”

- ◆ “Any funding mechanism that may be advanced by [the ministry] as paid for by industry must consider in the case of... pipelines – federal jurisdiction, and how and under what circumstances those costs will be recovered from shippers”
- ◆ “British Columbia does need an overarching governance model to ensure coordination of spill preparedness and response for all regions and industries of [the province]... application of the best placed regulator should be considered within this framework – a Memorandum of Understanding between the Ministry of Environment and the OGC, with support from the NEB, would be a preferred solution as the OGC has the necessary technical knowledge and ability to apply in all functions of spill management, including longer term recovery strategies”
- ◆ “How big a fund would be required?... in a worst case scenario there would be little or no cleanup or remedial work possible”
- ◆ “It would be worth a thorough investigation before capping the amount [of an industry-levied fund] at \$50 million”
- ◆ “We do not support development of a separate fund to maintain/increase government staffing to meet their roles and responsibilities in spill prevention and response; this support is already [provided through] corporate taxation – we do agree to the establishment of a fund that will partner government and industry projects to the betterment of the province of BC; for example, enhancement of current provincial coastal mapping, the identification of sensitivities so that protection strategies may be developed – criteria for accessing this fund should be established with industry and government input”
- ◆ “Similar to the existing federal ship sourced spill fund, we agree that there could be a specific industry fee that when collected creates a fund to a set maximum and could be drawn on by industry or government to offset costs for, for example, damages from a land-based spill where the responsible party is unable or unwilling to pay”
- ◆ “This funding model should take into consideration existing preparedness programs and exclude or decrease funding requirements for potential polluters who have an active and sufficient program – overall, the mechanism and collected funds should have a defined scope and must be transparent to all who are required to fund it”
- ◆ “Once you have a standard and an understanding of what it would cost to establish and maintain the required database, the costs of actual spill response and the risk of spill from the various industries/projects you will know how big the fund needs to be – then you can make providing the funds a condition of operation... a company that shipped a lot of product would pay more but if they remained incident free above an agreed time period they would earn at reduction in fee”
- ◆ “Membership costs should consider the record of the responsible party (i.e., poor operators pay more) – membership costs could also reflect where a company is operating – terrain, natural risks such as earthquakes, and the complexity or value of the ecosystems through which they operated”
- ◆ “Government should not impose redundancy and additional costs that duplicate what is already being incurred to obtain insurance, or provide individual corporate response capability or to support an oil spill cooperative undertaking”

B. Establishment of a provincial response fund

See intentions paper – page 10.

Response Form Question 4.2: Do you have any comments regarding the establishment of a provincial spill response fund?

Most respondents who commented on this topic were supportive of establishing a provincial spill response fund. Respondents commented, for example, that: “this is a prerequisite of a successful response model”; “a fund such as this would... be one way to ensure that spill response would be available and adequate for those who do not already participate in a sector-based regime”; “the Province should be allowed to use the funds as it sees fit without any pressure/limitation from the funders”; and “this is of critical importance to the success of a total response effort”. One respondent summarized that: “using a portion of the levies to establish and maintain a provincial spill response fund to cover operational costs incurred by the province in monitoring, augmenting or taking over a spill response would help to increase response capacity in the province – dedicating a portion of the levies to planning and preparedness in the province would help to ensure that the response is immediate and effective and would reduce overall spill costs”. Another respondent noted with their expression of support for a fund that “[our organization] previously withdrew from an MOU with federal and provincial agencies due to concerns over financial and resources insufficiencies in our ability to respond to an oil spill event”.

A number of respondents expressed concern about establishment of a provincial spill response fund, commenting, for example, that “there is no appetite for developing a Canadian ‘Superfund’... the ‘user-pay’ principle needs to be respected here”. Several respondents requested additional details before committing comment on the topic. One respondent, for example, requested “an analysis of the provincial funding gaps, how the funds would be used, and what other options should be considered (i.e., compliance/enforcement)” and recommended that “market based and performance based options should be the basis for funding... and that the responsible parties that pose the increased risk should be those that fund the needs for increased government oversight, prevention, preparedness and response capacity”.

Additional comments on this topic included:

- ◆ “There should be funding to ensure provincial resources are in place to support spills that impact on local municipalities and there needs to be a reasonable threshold to ensure that funds are disbursed for small events”
- ◆ “[Our organization] would suggest that the fund include monies designated to allow provincial regulatory oversight of oiled wildlife preparedness and response activities, for example the fulfillment of the Wildlife Branch Director position in Incident Command during a response”
- ◆ “Supportive of this approach as long as the funds are used appropriately and there is transparency and accountability... major spills in remote locations are not properly resourced right now by third party spill providers with proper training”

- ◆ “[Our company] does not agree with establishment of a provincial spill response fund – [we] suggest [that] the development of [one or more] industry response organizations would be a better fit for funding [following the model of] US standard for Oil Spill Removal Organizations (OSRO) for example”
- ◆ “The worry is that it will amount to ‘going through the motions’ to deflect genuine criticism”
- ◆ “I don't believe there should be any reason for the Province to establish a spill response fund – there should be a board that will ensure any spills are being responded to by the responsible persons or companies”
- ◆ “How does the fund provide incentive for companies that successfully avoid spills through quality processes?”
- ◆ “It is important that the fund is not used to duplicate resources that are already available... in N.E. British Columbia the upstream petroleum industry would currently meet the minimum spill preparedness requirements that are outlined in this document’s ‘world leading standards’ definition; additional funding from the upstream petroleum industry licensees in this area should not be required”

Response Form Question 4.3: Do you have any comments or suggestions regarding the development of rules that address the purpose, size and use of a provincial spill response fund (if such a fund is established)?

Respondents provided a range of specific suggestions in response to this topic. Several respondents commented that “any fund that is established should be performance-based (user-pay)”. A number of respondents commented also that “the proposed amount of \$50 million for a fund is arbitrary” or “needs further supporting details”. Some respondents recommended much higher figures (e.g., “30-50 billion dollars”) “in keeping with the true cost of responding to a large... spill or with the increased risk and remediation costs that will come with increased volume of transport”.

Detailed recommendations provided by one respondent, for example, included: “applicability should be very clearly defined (what/where this fund can be used for) – the ministry should establish and maintain a list of ‘certified’ industry contractors who can be called on during a spill event to fulfill specific activities – consider use of the fund for training and equipment for potential service providers (i.e., establish support preparedness to qualified firms) – there should also be a contingency fund in the case that the ‘polluter’ is not able to pay for the complete clean-up of a spill or they go into bankruptcy leaving the spill response company that provided the clean-up with a defaulted invoice... education and prevention should be an important part of this fund – there are a number of companies with risk of spills that either do not have a prevention/mitigation plan in place, or if they do, they do not know how to use it... performance of the spill response and remediation should be left to the environmental consultants and not the government – is there an inherent conflict of interest if the government performs/directs the work and they are also the body that evaluates the completeness of a response/remediation?”

One respondent outlined a detailed set of issues and recommendations on this topic. “The rationale for increased staff is not clear – Government role (with regards to oil and gas) is to ensure that industry has spill preparedness and response plans in place, and that role is currently being undertaken by the OGC – the OGC already has industry levies to fund its operations... [our organization] recommends an internal review of business processes be conducted and re-evaluation of resources and funding needed for appropriate oversight and governance”. “[With respect to training support]... an appropriate increase in exercises and training through spill co-ops to account for increased oil and gas development can be managed through support of the current system – increased collaboration with inter-governmental agencies, including the MOE, would be welcome”. “[Our organization] supports a national approach to standards, plans and protocols... the Oil and Gas Commission is [currently] working with other regulators from across Canada to develop the first national standard for emergency management within the oil and gas sector”. “[In regards to] spill related research and incident reviews... there are a number of opportunities for non-government funded research in these areas... the Science and Community Environmental Knowledge Fund... is an industry fund that is administered by the Oil and Gas Commission [and] have partnered with the Petroleum Technology Alliance of Canada... an industry funded organization which facilitates innovation, collaborative research and technology development, demonstration and deployment for a responsible Canadian hydrocarbon energy industry”.

Additional comments on this topic included:

- ◆ “The principles speak to emergency management being a shared responsibility... we recommend that the fund be adequate to pay for resourcing and training the human health part of the spill prevention and response plan... it would be beneficial if Health Authorities were able to access funded training and development opportunities”
- ◆ “The policy paper has not clarified the need for increased funding for... monitoring and compliance activities... increased cross-governmental communication may provide clarity on any overlaps or gaps that need to be addressed”
- ◆ “Funds should be available for wildlife preparedness (regular drills) and response, irrespective of species type, and they should also plan for ‘mystery spills’ when no responsible party can be identified”
- ◆ “The size of the spill response fund should consider the cost of recent land based spills of diluted bitumen”
- ◆ “The need for public participation and oversight is ESSENTIAL.... government and different sectors of the public, residents of coastal communities, fishermen, recreational users etc... should be involved in managing the fund”
- ◆ “Rules must be seen to be equitable, clear and enforced without bias – cost should be based on size of the industry or corporation involved – make it a positive approach - readiness and /or a rapid cleanup response benefits everybody – paying can also be seen as insurance - if companies have this cost, it may encourage them to review their own policies and practices”
- ◆ “If a fund is established – industry stakeholders need to be involved in the development of rules, financial accounting regarding the utilization of the funds must be available to program stakeholders [and] funds... mandated for use in spill prevention (public awareness) and response only”

- ◆ “A separate fund, containing a percentage of all revenues seen by operating companies in BC, should be established to invest back into sustainable cleaner energy infrastructure and companies (solar, wind, tidal, electric vehicle) and other new technologies...for jobs”
- ◆ “The fund [should] allow setup of a world leading spill response regime, do cleanup research and engineering, as well as pay when there is a pollution incident”
- ◆ “Rules should be established by a multi- stakeholder group – provincial spill response funds should not replace existing funding (i.e., insurance, corporate emergency response funds, etc.) that are held by industrial operators”

C. Increased staff and prevention, preparedness and response capacity

See intentions paper – page 10.

Response Form Question 4.4: Do you have any comments 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 BC’s land based spill preparedness and response regime?

Many respondents who commented on this topic suggested that “further” or “in-depth” discussion is needed to consider such factors as risk, social and economic benefits and performance. Several respondents suggested establishing a committee with “government and industry representatives”.

Differing comments were received regarding use of any funds collected. Some respondents commented, for example, that “we do not support the use of industry funded mechanisms to support the province’s governance role (i.e., determining priorities, and establishing and monitoring response performance)”. Other respondents, in contrast, felt that “no taxpayer money” should be used to support spill preparedness and response.

Additional comments on this topic included:

- ◆ “Mechanisms linking the production, transportation and storage of petroleum materials and other hazardous materials for collecting funds to support the provincial spill preparedness and response is generally supported... there also needs to be a mechanism linking marine docking facilities handling petroleum material and or hazardous materials into this process”
- ◆ “The responsible parties that pose the increased risk should be those that fund the needs for increased government oversight, prevention, preparedness, and response capacity”
- ◆ “A large amount of ‘insurance’ should be paid to the province that could be used to fund proper staffing of any agency charged with responsibility of responding to these crises – it should be a government-run agency and not a for-profit business or insurance company”
- ◆ “[Our organization] does not, in principle, support additional collection of funds for the establishment of a provincial spill response fund... any funding regime should ensure that large amounts of capital are not simply set aside in a stranded manner resulting in a dead economic effect... [our organization] does acknowledge that with the appropriate capacity, the BC government can play a strong coordinating role to ensure all resources are used to maximum effect – [we] would support efforts to strengthen that important role”

- ◆ “If the Provincial Government is not successful in having our needed inner and coastal Coast Guard [operations] reinstated by our Federal Government, then the costs to operate it, with appropriate staffing, must be provincially driven, as they are also paramount in reporting spill occurrences”
- ◆ “Effective government oversight can be enhanced by initiating an ERP self assessment (audit) process that can be shared by program staff with industry. It could be added to the list of proposed activities for additional staff”
- ◆ “If a fund is created [though our company does not agree with establishment of a provincial fund], the mechanism should be linked to the production, transport and storage of petroleum products and other hazardous materials... based on: industry type... product transported, risks/potential impacts... kilometers of infrastructure [and] capability of companies and/or industry members to finance preparedness, response and remediation activities – whatever mechanism is determined [it] should include the input of industry stakeholders”
- ◆ “This could perhaps be linked to operating insurance”

Response Form Question 4.5: Do you have any comments 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?

Many respondents commenting on this topic reiterated points made addressing previous questions. Comments included:

- ◆ “Funding should be broadly based”
- ◆ “There are existing models that could be adopted”
- ◆ “Could develop a matrix/framework for identifying the level of spill risk for a specific industry/company [and assign] an annual fee or cost for each risk level”
- ◆ “Could establish a liability factor [based on] substance, volume, transport distance, mode of transport”
- ◆ “Any fees collected should be used only in spill planning and response activity [not general government operations]”
- ◆ “Costs need to be related to spill risks and also the cleanup difficulty of the products involved”
- ◆ “The fund should have enough capital to finance the cleaning of the worst case scenario spill estimate”
- ◆ “Each company should have insurance [sufficient to] assume liability for a worst case scenario”
- ◆ “[Any] proposed fee collection process...should be vetted by industry stakeholders”
- ◆ “Our members... have previously asked that legislation be established to require that wild-life rescue and ecosystem recovery be part of standard oil spill response activities... and that a Liability Trust Fund be created to provide funding for spill event remediation when the Responsible Party cannot be identified or held accountable ([UBCM] Resolution 2007- B173)”

5. Protection of human health and the environment – meeting the ministry principles

Response Form Question 5.1: In your view, how effectively do the ministry’s intentions support the principles guiding BC’s land based spill preparedness and response regime?

Most respondents who commented on this question felt that the ministry’s intentions had “significant gaps” or was “adequate” in supporting guiding principles.

(a) What are the reasons for your choice?

Many respondents commented that “more details” are needed before they would feel able to judge effectiveness of the ministry’s intentions. Gaps noted by respondents included: “jurisdiction[al] overlaps”; “[addressing] federally monitored industries [particularly with respect to prevention]”; “liability guarantees [on the part of companies]”; “human health [as an important consideration]”; “insufficient emphasis on assuring Local Governments and First Nations will be involved in planning spill response [and compensated for associated costs at the planning stage]”; “need for clearly addressing both large and small spills, on-site and off-site and all material types (oil and hazardous)”; “inadequate focus on... discussion of prevention principles”; and “no mention of forming trained, appointed municipal volunteer watchdog groups to assist in detecting possible spills”.

Several respondents suggested a detailed review and assessment or a “gap analysis” of the present system in relation to other jurisdictions and federal and provincial agencies. One respondent, for example, recommended “detailed benchmarking... to determine what a world class [regime] would look like”. Another respondent suggested “a report outlining the required resources”. A third respondent recommended “a full legislative review on both Federal and Provincial levels on what Acts and Regulations apply during a spill response and how the [legislation] works into the next steps in the [review] process (e.g., under the BC *Environmental Management Act*... the Contaminated Sites Regulation and the Hazardous Wastes Regulation [contain provisions for] pollution abatement orders that the Minister can issue, as well as [provision for] punitive damages)”.

(b) Do you have any additional suggestions for the ministry to support a world leading spill preparedness and response system in BC?

Specific comments included:

- ◆ “Train volunteers before spills – equip regions”
- ◆ “Base your plan on science that is free from corporate bias”
- ◆ “Ensure the full engagement of industry through the process of developing/enhancing the land based spill response regime”
- ◆ “Many sectors currently have industry funded preparedness/response programs in place – care must be taken not to create redundancies or inefficiencies by layering unnecessary additional programs”
- ◆ “Need to have provincial resources including staffing, research and collaborative in place with a long term commitment for funding to ensure there is capacity to be world leading –

including a commitment to an adaptive management approach would support the intentions and ensure that there is a continual improvement model”

- ◆ “Federal cooperation, engagement of professional wildlife contractors and local wildlife rehabilitation community... jurisdictional overlap and/or the involvement of multiple regulatory agencies during an oiled wildlife incident needs to be clarified”
- ◆ “The response plan should... include monitoring the spill and its potential exposure or impact on human health via exposure pathways (e.g., inhalation, ingestion or direct contact)... it may also be important for major spill events to include in a response plan under what circumstances there may be a need for post event health surveillance to track potential short-term health effects... it would... be helpful to know if the Province expects local Health Authorities to be involved in the event of a spill, or more importantly in preparedness activities – Health Authorities are already involved in emergency/ disaster response and it would be helpful for us and other agencies involved to have formal recognition as to their title, roles and responsibilities in any updated provincial spill response plan”
- ◆ “There should be a provincial standard for training and clarity about how it is delivered, who pays and support for local governments who are involved in small spill response”
- ◆ “[Institute] a surveillance system using indicators that would identify a heightened risk of spill/rupture/release and so allow early intervention to either prevention the event or catch it earlier to minimize the impact to the surrounding environment and residents”
- ◆ “The Canadian Society for Chemical Engineering, a constituent society of the Chemical Institute of Canada has just released the Process Safety Management (PSM) Standard... this comprehensive tool was designed for the chemical related processing industries but can be used by many other sectors”
- ◆ “Found a cooperative National Oil spills Institute”
- ◆ “I didn’t notice anything in regard to First Nations lands in BC (Reserves, Treaty Settlement), Mine Sites, Ports, Parks (marine) – I mention these because of different ownership and/or regulatory regimes that are in play”
- ◆ “The Islands Trust asked that the Union of British Columbia Municipalities (UBCM) “encourage the Province to secure on-going revenue from industry for a sustained increase in provincial spill prevention, preparedness, mitigation and response resources and for a permanent BC spill response fund”; this was reflected in the UBCM’s 2012 convention endorsement of Resolution B122, Shipping of Dangerous Goods Liabilities”

Response Form Question 5.2: Do you have any other comments or suggestions for the ministry regarding spill preparedness and response in BC?

Respondents provided many comments and suggestions for ministry consideration both in response to this question and in cover letters or separate submissions accompanying their response form. This information has been compiled and documented for consideration by ministry staff in the review process.

Appendix A: Acronyms and Abbreviations

Acronym or Abbreviation	Definition
BC	British Columbia
BC ERMS	British Columbia Emergency Response Management System
CAER	Community Awareness and Emergency Response (Chemical Industry Association of Canada)
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosives Response (Transport Canada)
CCME	Canadian Council of Ministers of the Environment
CERCA	Canadian Emergency Response Contractors' Alliance
CSA	Canadian Standards Association
E2	Environmental Emergency (Plan – Environment Canada)
EMBC	Emergency Management BC
EOC	emergency operations centre
ERCB	Energy Resources Conservation Board (Alberta)
ICS	Incident Command System
ISO	International Standards Organization
MOE	Ministry of Environment
MOU	memorandum of understanding
MSDS	material safety data sheet
NEB	National Energy Board
NEBA	Net Environmental Benefit Analysis
NRDA	Natural Resource Damage Assessment
OGC	Oil and Gas Commission (BC)
OSRO	Oil Spill Removal Organizations (US Standard)
PSM	Process Safety Management
SOPF	(Canadian) Ship Source Oil Pollution Fund
TEAP III	Transportation Emergency Assistance Program – third version (Chemical Industry Association of Canada)
TERSP	Transportation Emergency Response Service Provider
UBCM	Union of British Columbia Municipalities
US	United States
WCMRC	West Coast Marine Response Corporation
WCSS	Western Canadian Spill Services