



Ministry of Environment & Climate Change Strategy

SUMMARY OF ORGANIZATIONS COMMENTS

WHAT WE HEARD REGARDING THE *POLICY INTENTIONS PAPER: PHASE TWO ENHANCEMENTS TO SPILL MANAGEMENT IN BRITISH COLUMBIA*

Response times | Geographic Response Plans | Addressing loss of public and cultural use from spills including economic, cultural, and recreational impacts | Maximizing the marine application of environmental emergency regulatory powers

On February 28, 2018, the Ministry of Environment and Climate Change Strategy (the ministry) released the *Policy Intentions Paper: Phase Two Enhancements to Spill Management in British Columbia* (the Intentions Paper). This report is one of four that has been prepared to share what the ministry heard regarding the Intentions Paper. The four reports are:

1. Summary of Public Comments (prepared by R.A. Malatest & Associates Ltd.)
2. Summary of Organizations Comments (prepared by ministry staff)
3. Summary of First Nations Workshops Comments (prepared by the First Nations Fishery Council)
4. Summary of Technical Working Group Comments (prepared by ministry staff)

These reports, the Intentions Paper, and information about the engagement process is available at:
<https://www2.gov.bc.ca/gov/content/environment/air-land-water/spills-environmental-emergencies/engagement-on-phase-two-enhancements>

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1. INTRODUCTION

In 2016, the Legislative Assembly of British Columbia unanimously passed the addition of Division 2.1 Spill Preparedness, Response and Recovery to the *Environmental Management Act 2003*. Division 2.1 provides government the authority to make regulatory enhancements to the way environmental emergencies are managed in British Columbia (B.C.).

The first phase of regulatory enhancements took effect in October 2017 and requires transporters of liquid petroleum products to develop and test Spill Contingency Plans, as well as requiring spillers to take precise steps to engage in spill reporting and community notification, clean-up spilled material, and fully restore the environment following the conclusion of the spill response. For a complete list and details of Phase One enhancements, visit the Ministry of Environment and Climate Change Strategy (the ministry) [Phase One enhancements website](#).

On February 28, 2018, the ministry released the *Policy Intentions Paper for Engagement: Phase Two Enhancements to Spill Management in British Columbia* (the Intentions Paper). The Intentions Paper describes four policy topics that government is considering for future regulation development and invited feedback between February 28 and April 30, 2018. The four topics outlined in the Intentions Paper are:

- Prescribing **response times** to ensure timely responses following a spill;
- The development of **Geographic Response Plans** (GRPs) to ensure resources are available to support an immediate response that takes into account the unique characteristics of a given and particularly sensitive area;
- Addressing **loss of public and cultural use** from spills including economic, cultural, and recreational impacts to ensure communities are compensated for negative impacts from spills (e.g. compensation to a community and/or Indigenous community when food gathering access is limited following a spill); and
- Maximizing the **marine application** of the ministry's environmental emergency regulatory powers within B.C.'s jurisdiction to ensure a consistent and high standard of protection in both marine and terrestrial settings.

The ministry released the Intentions Paper on February 28, 2018 with the Minister of Environment and Climate Change Strategy, George Heyman, expressing a desire to "... make sure British Columbians have

their voices heard on the next steps in protecting our environment.”¹ A copy of the Intentions Paper is available on the ministry’s [Phase Two regulation website](#).

Indigenous communities, federal and local governments, industry, environmental groups, and stakeholder organizations were invited to provide formal written feedback between February 28 and April 30, 2018. The key findings outlined in this report are based on the opinions of the organizations that made submissions.

2. RESPONSE TIMES

2.1 Response times as planning standards/guidelines or performance standards

- There is wide support for response times given their use in several jurisdictions and sectors with suggestions to review other jurisdiction’s experience before making any decisions; one respondent cited the State of Washington’s planning standards that are set in the context of the largest possible release complicated by adverse weather.
- Response times should be established for multiple aspects of an incident response including resource activation, arrival of equipment and personnel on site, initiation of containment activities, public notification, and monitoring activities.
- Response times, such as those outlined in Table A #1-5 in the Intentions Paper, should be in the form of guidelines or planning standards as opposed to prescribed performance standards or guarantees in regulation. Issues cited to justify this approach include natural disasters, extreme weather events, location, and shipper responsibilities, all of which can influence an emergency responder’s ability to arrive at the scene quickly. Also cited was the importance of caution to ensure the safety of responders and the public. Washington State and Western Canada Marine Response Corporation were referenced as examples of organizations that use planning standards.
- Emergency management programs in the transmission pipeline industry have multiple standards which support companies’ management systems. (e.g. *Planning Standard*, an internationally accepted document which establishes the desired response outcomes, including target response times, use for response planning to ensure a prompt, safe and effective response to any emergency). A variety of milestones in which the planning

¹ B.C. Government News (February 28, 2018) Ministry of Environment and Climate Change Strategy "Public comment invited on proposed B.C. spill regulations," <https://news.gov.bc.ca/releases/2018ENV0003-000298>

standard applies includes: shutting down operations, internal notifications, initial site assessment, and equipment deployment. The actual response times are reviewed during exercises and following any event requiring activation of the Emergency Response Plan to confirm that a company has adequate resources and equipment to meet the maximum target response times. These response times also guide the placement of spill response equipment and resources.

- Some submissions expressed a desire to explore the use of performance standards to improve response times and response performance as far as reasonably achievable, either for high volume transporters, or across all projects, areas, industries and products. One respondent suggested that the ministry should define the fines for non-compliance.
- One suggestion was a spill clean-up performance standard mandating a minimum spilled oil recovery rate of 80% with each percentage point of recovery below the 80% incurring an escalating fine.
- Proposed response times must go beyond the existing industry standard and even the standards in other jurisdictions or federal requirements if they are demonstrated to be inappropriate in minimizing impacts to the people and the environment.

2.2 Response times milestones as described in the Intentions Paper

- Milestone #3 'eight hours everywhere else' response time is not practical, given that it would apply to remote areas where eight hours would not necessarily be enough time to respond.
- Milestone #5 "second wave of equipment and trained personnel arriving on site" is noted to be undertaken within 12 hours after the arrival of the first wave. While this may be reasonable a response time in remote areas of the Province, it may not be a reasonable time for urbanized areas such as Metro Vancouver.
- One requirement during the response should be to immediately share the following with a public health expert: (1) the initial spill report and (2) information from the spiller's Spill Contingency Plan (e.g. complete information on the nature and behavior of the product, spilled scenarios with air emission estimates, safe thresholds, safety equipment, response times, and evacuation routes). The public health expert should perform a rapid health assessment to inform the response crew about the emergency level, the required response time and safety and health risk for the response crew and the community, as well as if evacuation or shelter-in-place notices must be enacted. All first responders must have personal protective equipment and self-contained breathing apparatus in order to initiate an immediate response to a spill.

- The proposed definition of ‘populated areas’ is a B.C. municipality having a population of greater than 5,000 people needs further consideration, given that 72 of 162 municipalities appear to have a population under 5,000. Not all of these municipalities will have response resources within their boundaries, nor will it be practical or necessary to have spill response resources located in all of these municipalities in the future.
- The definition of ‘populated’ (population of 5,000 and ‘B.C. municipality’) creates inequity for Indigenous communities. All B.C. Indigenous communities have a population that is less than 5,000 residents and are not considered to be B.C. municipalities, potentially excluding them from higher level protections for which ‘urban/populated/municipalities’ receive. While it is recognized that response resources are typically deployed for larger municipalities and that there are limitations within B.C. due to geography, it may be more appropriate to develop response times that are reasonably achievable and based on the area, location of the industry/activity, and hazardous products involved.
- For municipalities of greater than 50,000 people, response times should be shorter (also depending on the spilled product’s nature and behaviour).
- Response resources should be strategically located at an urban or rural site that can offer response coverage to a region that may include multiple municipalities with a population over 5,000.
- It has been suggested that response times will be increased for areas that are farther away from population centers. This may not be in the best interest of protecting drinking water resources. Spills to small or remote waterways can quickly impact aquifers and surface water intakes.
- The setting of response times should not just be based on population but risk and consequences.
- Current response times and infrastructure are inadequate to address tidal marshes and mudflats.
- It is unclear if general response times in Table A of the Intentions Paper are to be applied as response times in Geographic Response Plan (GRP) areas or whether the GRP areas would have more restrictive response times.

2.3 Additional points raised regarding response times

- If an Indigenous community's response capacity is supported in a way that would leverage local knowledge, then response times would be reduced, resulting in better protection for communities.
- Regarding an initial assessment, further clarity is necessary to ensure roles are clear and types of assessment meet the necessary immediate public health risk assessment. In addition, reporting times regarding initial findings or lab results are needed, as it is this is the information Health Authorities need to conduct a proper initial risk assessment.
- It is not clear whether there are response times to address spill volumes beyond the 40% clean-up requirement as part of the second wave time requirement or if the 40% benchmark is health or environment-based.
- Large quantity spills may have great consequences but is there evidence to suggest that frequent, small spills have minimal consequence and therefore warrant the lower response standard.
- Access to timely information and measurements need to be included in response times. This is so that there can be timely identification and mitigation of health hazards.
- In the presence of extenuating circumstances or not, if the spiller is not mobilizing a response according to their Spill Contingency Plan, the ministry should immediately take over and mobilize the required response.
- Understanding the consequences of delayed response times to human health in heavily urbanized zones such as the Lower Mainland is critical.
- Ensuring first responders are equipped to support the front line of human health as the spill response is mobilizing must be integral to this policy. First responders must be engaged in response time policy.
- Timely response may be more significant in some very specific locations where highly sensitive environments, high currents (tidal or riverine), or other local conditions potentially make spill impacts more damaging.
- The Lower Fraser River, particularly Port Moody, is under tidal influence and could experience access challenges in a spill response scenario. How will this policy ensure that the response time can be addressed despite challenging tidal conditions?

3. GEOGRAPHIC RESPONSE PLANS

3.1 GRP development and implementation processes

- Ways of streamlining could include: adopting/modifying pre-existing agency programs from members of the Pacific States-B.C. Oil Spill Task Force, including Washington State; kick-starting the system through government(s) providing necessary documentation in useable form up front (50 + resource trustee databases and GIS layers); initial government led public and Indigenous communities collaborative engagement to develop and review priority protection lists for identified resources-at-risk.
- The ministry should acknowledge and leverage the work that has already been completed on GRPs by the pipeline industry.
- GRPs are useful beyond planning for the transportation of hydrocarbons and help to strengthen overall community emergency plans, as many other hazards introduce risks that could initiate the need for protection of sensitive areas.
- The cost of developing GRPs needs to be carefully considered and should be shared among parties as they are not about one industry or product, but support response to all hazards.
- Regulated persons could provide leadership in coordinating and supporting training, developing response tactics (source control, protection strategies), conduct drills and exercises, collaborate to review, test, and update GRPs. There should also be periodic assessments and re-approval of GRPs every five years, with triggers for immediate reassessment.

3.2 Participation of First Nations, communities and relevant stakeholders in GRPs

- There is a need for clarity on how GRPs will be developed (e.g. stages of input), funded, and how it will be determined which groups are included and ensuring that they have the capacity to participate. For example, Indigenous communities, local governments, health authorities, and citizens groups do not currently have the resources to participate in all aspects of GRP development, implementation, and review. In addition, some Indigenous communities wish to participate in 'government to government' discussions instead of, or in addition to, joining planning committees.
- The free, prior, and informed consent of Indigenous and non-Indigenous communities should be required for GRPs.

- 'Hot spot' GRPs must include a clause or moratorium mechanism (e.g. ability to pause shipments) for communities to deny access to a project until adequate consultation and oil spill preparedness has achieved social license.
- GRPs are an opportunity to identify assets and strengths within Indigenous communities and local governments, as well as building additional response capacity.
- There are a range of opinions as to how planning/advisory committees should be created, and what their roles should be. There is support from multiple local governments and Indigenous communities for the Regional Community Advisory Committee concept first developed in Alaska and Washington States, and more recently adapted in B.C.'s Lower Mainland. Others suggested that starting with a single committee for the province would help in planning standardization.

3.3 Topics for consideration and inclusion in GRPs

- Issues of local concern and how sensitive information will be protected.
- Spill management systems, notification, and public engagement plans, including cross-boundary provisions.
- Description of the sensitive areas (including areas with high Indigenous community cultural value, where human health and health services may be affected, breeding sites, presence of endangered or threatened species, presence of commercial and recreational species, seasonal sensitivities, and all water supply reservoirs, intakes, aquifers, and their identified protection zones.
- Water purveyors have developed either vulnerability mapping or intake protection zones. Direct communication to initiate an immediate response is crucial following a spill. Water providers rely on health agencies holding these plans to advise of spills that could impact water supplies.
- Information on natural resources, coastal, and aquatic habitat types and physical geographic features, including relative isolation of coastal regions.
- Baseline data, including contaminant concentrations, human activities (e.g. marine harvesting areas, drinking water sources).
- Potential spilled substances, spill locations, and spill modeling conclusions.

- Weather and climate considerations, potentially confounding hazards and risks in the area planning and clean-up standards.
- Equipment caches installed equipment and designated response teams.
- Detailed protection strategies, including identification of the potential use of any physical, chemical, or biological methods (including applicable approvals).
- Methods for determining product loss and product recovery rates.
- Locations of GRP sites (e.g. bases, staging areas, at-risk resources, boom, and anchor points).
- Shoreline access and closure plans.
- Consideration of currents, tidal effects, and resultant dispersal models.
- Local storm drainage systems.
- A list of local and regional first responders should be included in the GRP.
- GRPs should be reviewed regularly.
- Inventories of remediation resources.
- Plans for restoration of ecosystems and cultural practices.
- Volunteer management.
- How to harmonize and coordinate with other plans.
- Planning and performance response times.
- Composition of the advisory committee including roles and responsibilities.

3.4 Roles and responsibilities in GRPs

- Input from stakeholders in GRP development could focus on collecting accurate and useful data for planning. It was suggested that these groups should not be involved in determining response resource allocation/capacity, or funding for local response activities. Data requirements should

be developed by industry and the ministry, with data collection and assembly of GRPs being a ministry responsibility.

- GRPs should not be used to fill resourcing gaps and should focus on protecting sensitive resources.
- Advisory committee expenses should be paid by the ministry, and reasonable and appropriate compensation limits be established, to encourage adherence to fixed timelines for GRP completion.
- The ministry should develop a common place to hold (digitally), support, and maintain GRPs for public sharing. By collating all work developed thus far by industry, a robust library of strategies and identified high consequence areas, would be accessible, prevent duplication, and enable the focus to be on areas not yet assessed and still requiring planning. Consideration will need to be given to protecting information regarding 'resources at risk.' Experience indicates that information on some high consequence areas is appropriately made public, while other information may need to be kept confidential.

3.5 Potential barriers to success in developing GRPs

- If there are multiple regulated persons/plan leaders preparing more than one GRP for the same geographic area, duplication of effort and excessive costs will result. This would also hinder planning and response efforts.
- It may be difficult or impossible to accurately identify all regulated persons operating within an area like a highway corridor, as companies have multiple road routes to choose from and the industry needs freedom to optimize routes based on customer demands.
- In instances where there may be multiple unidentified regulated persons such as the trucking example described above, government should bear costs of GRP development.

3.6 Setting priorities for where GRPs should be developed

- GRPs should be focused on areas with unique needs that spill planners and responders are not already prepared for. Some companies already have GRPs in place. These map-based plans have already been generated for the length of pipelines that transport liquid petroleum products and take into consideration high consequence areas. They are developed in collaboration with local public safety and first responder agencies, along with input from Indigenous communities to gather local knowledge and identify sensitive areas. This process supplements the already identified environmental,

ecological, Indigenous, social and economic values. GRPs are continually evaluated and updated, including engagement of Indigenous communities, local stakeholders, landowners, and the public to ensure these GRPs capture additional high consequence areas that require protection from potential spills.

- It was suggested that marine GRPs should be the priority, including Burrard Inlet natural areas (e.g. Maplewood and other mud flats and salt marshes) and communities, and the Salish Sea (high relative probability and impact of spills – need to harmonize GRP content with state of Washington). B.C. coastal islands where freshwater resources are limited were suggested as GRP candidates requiring quick, effective response to land-based spills. Another suggestion was to address linear corridors before ‘hot spots’.
- Hot spots GRPs would be a good mechanism to address frequent spills such as some of the frequent sewage releases into the Columbia River.
- GRP development priorities should include highway corridors that have sections near high valued waterways (e.g. Nimkish and Skeena Rivers).

3.7 Comments on GRP legislation

- GRP approvals where heavy oil is present should not be considered in the absence of evidence that it can be safely transported and cleaned up.
- There needs to be a requirement to use best available science, Indigenous knowledge, and to apply the precautionary principle in developing GRPs (e.g. GRPs could require geographic restrictions on the storage or transportation of hazardous substances where avoidance of risk is necessary).
- GRPs must be completed and approved prior to the issuance of other related provincial permits.
- There should be Provincial and Indigenous approval of GRPs.
- A requirement to demonstrate the effectiveness of a proposed GRP is needed, including authority of the Minister to withhold approval if the GRP is not likely to be effective at protecting natural, cultural, or other values.

4. LOSS OF PUBLIC AND CULTURAL USE

4.1 Principles to be applied to loss of public and cultural use

- Well-defined scope and expectations that can be clearly and consistently interpreted and applied will be critical for all stakeholders, including the polluter-pay principle.
- There are two juxtaposing views on how to handle loss of public and cultural use. On one hand, there is a view that claims arising from such losses should be a civil matter to be ideally negotiated between the affected parties, or alternatively decided in a court of law, while on the other hand, there is a view that there should be loss of public and cultural use assessment and claims processes developed specifically for spills and mandated by new legislation.
- There is a need for clear policies and guidance on expectations for community consultation and engagement. This should include the following international standards: United Nations Declaration on the Rights of Indigenous Peoples, United Nations Guiding Principles on Business and Human Rights and the International Finance Corporation's Performance Standards on Social and Environmental Sustainability and Environmental, Health, and Safety Guidelines.
- There must be clear and mandatory timelines and milestones for loss of public and cultural use processes that must be made explicit in legislation.
- The existing legal framework of liability and compensation must be explored and documented before proceeding with any new requirements. Three examples of federal liability requirements were shared:
 - The liability regime associated with federally regulated railway incidents is part of the Canada Transportation Act; a two-tier liability and compensation structure that prescribes minimum levels of insurance that railways must carry based on the type and volume of dangerous goods they transport. Risk-based minimums range from \$25 million for railways carrying limited or no dangerous goods to up to \$1 billion for railways carrying substantial amounts of dangerous goods. There is also a Fund for Railway Accidents Involving Designated Goods, it ensures that more resources are available to compensate victims, pay for clean-up costs, and protect tax payers from incidents involving crude-oil moved by rail.
 - Federally regulated pipelines are similarly regulated under the *National Energy Board Act* and *Pipeline Safety Act*. Under these acts, there is unlimited liability when the spiller is proven to be at fault or negligent and absolute liability regardless of

fault, meaning that companies operating major oil pipelines are liable for all costs and damages including loss or damages and loss of non-use value of public resources up to \$1 billion.

- For federally regulated marine oil transportation, Transport Canada has committed through its Oceans Protection Plan (OPP) to strengthen spill compensation mechanisms. This will occur through enhancements and modernization of the Ship-source Oil Pollution Fund (SOPF). The OPP will ensure industry-funded compensation in the case of a marine oil spill, including unlimited amount of compensation available for spill response. The polluter in a ship-source spill, is liable for all of the costs related to the response and is required to carry enough insurance coverage for this purpose. There is also an ability within Canada's regime for spills of persistent oil cargo to access additional international funds through the SOPF. This fund would be accessed to fund a response in cases where the polluter cannot be determined. In the unlikely event that the SOPF is depleted, a modernized levy on those who ship oil would be applied, ensuring that compensation continues to be funded by industry.
- Provisions for payment of costs or expenses incurred by others in relation to a spill. Additionally, in the event of a spill, a company is liable for the applicable limit of Absolute Liability for costs associated with loss or damages and loss of non-use value of public resources.
- Should the ministry move forward with the intent to include a process to compensate the public for 'losses' as a result of a spill, a technical working group could aid in the identification of appropriate and well-tested quantification tools and methodologies to assess losses as well as identify an appropriate process to determine compensation.
- It may not be appropriate to include the loss of Aboriginal Rights as part of the general loss of public and cultural use concept.

4.2 Including affected communities and Indigenous communities in loss of public and cultural use processes

- The diversity of B.C.'s natural attributes and cultures dictate that environmental protections must be as unique as the people and places they seek to protect. This means that culturally appropriate plans, protocols, compensations, and restorative justice methods may be different depending on the territory and region.
- Affected communities and Indigenous communities must play a role in assessing the extent of the damage, including loss of public and cultural use. The legal standards and knowledge of

Indigenous communities must be respected in determining impacts and compensation. A public health focus group is recommended to ensure that health concerns of the population are integrated within regulations.

- There is a need to recognize that Indigenous communities have jurisdiction over their lands and that any response/recovery activities must address their concerns and have their approval and support.
- Clarity will be needed on who is considered qualified to develop a loss of public and cultural use plan, whether this approach enables effective and trusted community-driven processes and on how the ministry approves the adequacy of a loss of public and cultural use plan, particularly where impacts are to Indigenous communities.
- World Health Organization assessment methods and agreement on appropriate qualified professionals are needed as part of study design.
- Consideration should be given to Indigenous communities to develop their own plan to ensure that it is trusted. There needs to be payment for significant and proactive support and outreach into affected communities, to minimize post traumatic stress disorder, social anxiety, and depression rates after a spill.
- Potentially sensitive information may be required to demonstrate community loss; therefore, processes need to respect the Indigenous communities' Ownership, Control, Access, and Possession (OCAP) principals of data and information protection.
- Communities need to conduct assessments, so that they have control over how their values are reflected and how their information is collected, protected, used, and shared.
- The evidence-based review of public health impacts of oil spills from past incidents, such as the Lac Megantic Disaster, may be instructive on the disproportionate impacts to Indigenous communities.

4.3 Components of loss of public and cultural use assessments

- Direct and indirect impacts to physical and mental health and the social and cultural wellbeing of communities need to be assessed.
- Categories of ecological impacts must be made as detailed as possible, with bounds, ranges, and rationale as clearly delineated as possible.

- Economic impact assessment-based compensation must be 1:1 with lost revenues, wages, and other economic benefits that would have accrued from damaged resources, property, and equipment with further payments covering the costs of economic adaptation, such as retraining, education, equipment replacement, and rebuilding. This should be determined from a combination of historic data and comparisons against similar areas and economic activity.
- There is a need to set a timeline within the recovery phase for completion of a loss of public and cultural use plan.

4.4 Questions and apparent gaps associated with the loss of public and cultural use concept

- What are the specific methods that are contemplated for public and cultural use assessments and compensation calculations? Will they include health as well as Indigenous communities' food resources? Will these choices include Indigenous communities and other communities?
- How can the loss of public and cultural use processes be made timely, given the time it takes to respond and recover from a spill?
- What specific methods will be used to ensure that all stakeholders, including Indigenous communities and other communities are included in decision making? Will decisions on methods be documented with reasons for choices made?
- Terms and conditions for restorative justice ought to be community-based and culturally appropriate. What is culturally appropriate for one community may extend beyond the civil laws of B.C. or Canada.
- What is the financial model proposed and how will these costs be administered? How will there be assurances that the ministry or responsible person is able to pay? Will there be a limit of liability? Could there be separate bonding mechanisms to secure a reliable source of funding for compensating and mitigating effects to communities?
- Compensation funds should be held in the public interest and not bound by bankruptcy laws. Compensatory measures must be put forward prior to operations to ensure integrity of the shipper and provide security for communities.
- Will loss of public and cultural use requirements take away from the requirement for the spiller to remediate the spill site completely?

- What role does local government have? Should a local government receive compensation for loss of public and cultural use of a public asset when that compensation is deemed to be inadequate?
- Loss of public and cultural use provisions should not be left to a decision makers discretion.
- All responsible persons, the producer of the product, the producer of the diluent, the transporter (e.g. pipeline and the tanker company) should be accountable for loss of public and cultural use.
- The federal Ministry of Health must oversee the health impact of oil spills and provide research and protective legislation for first responders, clean-up workers, and the public.

5. MARINE APPLICATION OF PROVINCIAL REGULATIONS

5.1 Alignment with federal requirements and Initiatives

- The Province needs to work with its federal counterparts to ensure that all provincial requirements are harmonized. Consideration of the existing federal and B.C. Oil and Gas Commission regimes should be part of developing this proposed regulation as there is a risk of creating duplicative requirements, requirements that cause confusion, or that cross purposes. For example, Transport Canada has jurisdiction under the *Canada Shipping Act* to oversee and regulate all aspects of shipping, including spill prevention, preparedness, response, and recovery. To operate in Canada, all bulk oil carriers and all other vessels (non-bulk) (e.g. ferries, cruise ships, cargo ships) must have an arrangement with certified response organization. Oil handling facilities receiving or shipping oil by marine delivery are also required to maintain similar arrangements. This ensures oil spill response plans, teams, and equipment are always available to commercial vessels and oil handling facilities.
- The Province should not proceed with this type of legislative development.
- There are legal issues associated with marine application of provincial spill management legislation and policies.
- Where there are multiple jurisdictions, the proposal to maximize the provincial application of environmental emergency regulatory powers in marine areas is encouraged. This difference in jurisdiction must be indulged to the mutual benefit of communities, not the mutual exclusivity of various orders of government acting in their own best interests.

- Canada has a well-functioning and globally aligned marine safety regime and efforts are well underway to continue to increase preparedness, enhance capacity, and ensure that funding of a ship-source spill response is always available, while lying fully with the polluter. As part of this system, Transport Canada is the certifying body for the Western Canada Marine Response Corporation (WCMRC) which is prepared to respond to marine oil spills along the 27,000 kilometers of B.C.'s coastline. This industry-funded response organization is certified through the demonstration and evaluation of capability and capacity at exercises and drills and conducts continuous training and equipment maintenance to ensure ready-state response capability. Recently the organization has taken numerous steps to further enhance their already world class capabilities. This includes meeting with thousands of coastal British Columbians to map the coast and ensure that sensitive areas are protected. Each strategy created is field-tested to ensure it is effective. Additionally, enhancements to WCMRC's response capabilities are also underway for the B.C. south coast, which will result in a significant increase to WCMRC's response capacity with a marked reduction in response times for on-water response.

5.2 The role of cooperative federalism

- Environmental protection is both an issue of great public importance and an area of shared responsibility between provincial and federal governments and water does not respect constitutional boundaries. As such, in the context of marine spill legislation, cooperative federalism is relevant. B.C. has both the authority and the responsibility to apply its spill response legislation to marine settings as it has ownership of the waters and seabed between the B.C. mainland and Vancouver Island and jurisdiction to manage public lands to the low water mark. B.C. also has the authority to enact legislation with the purpose of protecting the health of B.C. residents and spills in the marine environment could have significant and long-term impacts on human health. Further, B.C. has an obligation to address risks to Aboriginal title and rights from spills. In addition to these considerations, the health of the ocean is critical to the economic, social, environmental, and human health of the province. A proviso is that this authority is subject to areas of specific federal jurisdiction such as fisheries, shipping and navigation, and to Indigenous jurisdiction.

5.3 Potential gaps in marine spill management

- Given that the Ship-source Oil Pollution Fund limits of liability do not guarantee that all costs will be recovered (e.g. health-based expenses have not been tested) and no jurisdiction currently identifies how health and safety risks are minimized, assessed, or mitigated. B.C. could act to ensure this gap is filled.
- Mechanisms of accountability are opaque. Nowhere is consent sought; meaningful consent is impossible. The public has no ability to review, modify, or reject fossil fuel transit plans.

- There is a need to ensure compliance with the B.C. Spill Reporting Regulation for marine spills where provincial resources are impacted.
- Greater clarity is required regarding how provincial resources are defined in determining how marine spill regulations are invoked.
- Ambiguity regarding the regulatory context for intertidal and foreshore lands owned by local governments must be addressed.

6. OTHER COMMENTS NOT SPECIFIC TO PHASE 2 TOPICS

6.1 Increasing the rigour of the spill management system

- Legislation must be based on the best available science and Indigenous knowledge and apply the precautionary principle where knowledge gaps exist.
- Risk assessment is necessary to determine where and when risks outweigh benefits and in instances where this is the case, the answer would be 'no'. Examples where this may be the case include benzene transported in proximity to communities, diluted bitumen in an aquatic environment, or heavy diesel transported in dangerous weather conditions.
- Oil spill regulations must consider that which we cannot foresee and embrace protections on a precautionary basis, that may end some projects, relinquishing short sighted economic urges in exchange for long term opportunities. This precaution is especially important considering Indigenous communities' long held spiritual and cultural connections to the land and water, and our lack of ability to quantify these values and benefits.
- Regulations must be transparent, comprehensive, and compulsory. Adequate funding for compliance and enforcement staffing will be needed to uphold new policies and help to build a strong, sustainable, innovative economy that works for everyone.
- There is debate as to whether the polluter-pay principle is for all aspects of the regime - spill preparedness, response, and recovery or whether a new bonding system based on worst-case scenarios including loss of use is necessary.
- Plans must be based on our best understanding of the behavior, toxicity, and most effective and least harmful clean-up method for each substance that is transported within B.C. This also

means that if we do not understand how to clean up a substance, it should not be approved for transportation.

- Plans must include detailed instructions for clean-up phases, including coordinating the different spill response authorities.
- Plans must be open to public scrutiny and comment and include mandatory timelines and reporting.
- It is not clear why the government would not review all Spill Contingency Plans.
- Shippers must demonstrate that their Spill Contingency Plans are effective before they are approved. This includes testing and public scrutiny.
- Industry must prove its ability to respond prior to operations.
- Oil spill response plans must be in accordance with protocols of the Indigenous communities that may be impacted. In order to all benefit from the traditional and regional knowledge of Indigenous communities and to restore Indigenous and public faith in regional preparedness, Indigenous communities must have their risk assessments and governance decisions honoured.
- Ensure government agencies have capacities to act on new requirements to ensure that governance is in the hands of the public and that there is independent analysis of issues presented by stakeholders.
- B.C. needs to be part of physical responses, paid for by an annual taxation scheme for oil transport corporations. This would fund a provincial taskforce to be deployed under the *Emergency Program Act* and a provincial response team to engage with federal and Indigenous community agencies during an oil spill.
- B.C. ought to have a lead role in response teams and response plans and be ready to coordinate directly with federal authorities, harbour authorities, the Canadian Coast Guard, Indigenous response teams, and regional authorities as needed.
- Much of the language and concepts in the Phase Two document are discretionary, allowing for situations where the regulator may intervene. Some stakeholders like the discretionary aspects, others want more prescription.
- A joint scientific panel including federal and provincial governments could work collaboratively to foster technological advances that can raise the bar for acceptable clean-up rates.

- Technical competence and tools for situational awareness need improvement. Often, response crews are not aware of the environmental and cultural sensitivities in the area of a spill.
- Recent experience with the Marathassa and the Nathan E. Stewart spills leads to questions regarding the adequacy of prevention, response times, proficiency of clean-up, and remediation (poor baseline knowledge, unwillingness to pay, lack of compensation, transparency, credibility and legitimacy).
- There is a need for a significant upgrade in the resourcing and labor for oil spill response and technological and tactical upgrades.
- Two emergency towing vessels have been requisitioned for the west coast by the federal government.
- More thorough scientific inquiry is needed for many aspects of spill response, especially in the context of fate and behavior of oils that can sink; need technologies and techniques for product recovery especially in moving water contexts – also detecting, containing, and recovering submerged and sunken oil and assessing associated impacts.
- As part of the federally committed investment of \$1.5 billion towards the OPP, additional research into the fate and behavior of oil spills on water will be conducted.
- Exposure standards need to be upgraded to match current science on carcinogens and tereogenic contaminants, such as benzene. Long term monitoring and compensation programs for environmental contaminants need to be included in the legislation.
- The ministry, together with the Ministry of Health, could include a health and safety education and management program for employees, community residents, students, and staff of schools and universities, first responders, clean-up workers, emergency department personnel, and occupational and environmental health care personnel.
- The Province could support establishing an Indigenous Community Spill Response Secretariat.

6.2 Applying new rules to substances other than petroleum products

- Proposed enhancements should apply to products other than petroleum. There can be significant health risks from other highly toxic commodities that are spilled.

6.3 Adequacy of current legislation and spill regime

- Key elements for effective land spill prevention, response, and recovery systems for B.C. already largely exist within B.C. industry. Some of these elements are regulated and some are voluntary. We need to avoid creating redundancy, confusion, and unnecessary cost to industry and stakeholders and must not diminish the efficiency of emergency preparedness and response efforts that are already established. Enhancements should build on these well designed and functioning industry systems, including industry funded spill response organizations.
- B.C.'s regulatory regime for fossil fuel transportation is extremely lacking in comparison to Alaska and Washington. B.C. lacks fulsome management, best practices, and community involvement. Current regulations read as if they were written explicitly for the benefit of corporate interests at the expense of public oversight, health and safety, and adequate environmental protections. The challenge will be to bring about equality between the interests of businesses that benefit communities and the environmental values that are disproportionately put at risk by corporate interests. Examples of disasters that impacted areas of B.C. that could have been avoided or mitigated include: Exxon-Valdez disaster in 1989, Goldstream gasoline and diesel spill in 2011, Lemon Creek tanker truck oil spill in 2013, Marine Vessel Marathassa oil spill in 2015, Nathan E. Stewart oil spill in 2016, the Jake Shearer near-disaster in 2017, Plumper Bay Esquimalt diesel oil spill in 2016, Queen of East Vancouver oil spill in 2017, and the Station Creek/Mission Creek coal-train disaster in 2018.
- B.C. should avoid duplication, help demonstrate world-leading practices, recognize current provincial and federal regulatory requirements, manage and mitigate spill risks and the cost of spills, recognize input and participation by Indigenous communities, and help to preserve the highest standards for the protection of human health and safety and the environment.
- There are federal statutes specifying spill related liability and compensation requirements for ship-source spills, inter-provincial pipelines, and federally regulated railways. B.C.'s spill response regime addresses many of the same elements of the federal regime including those around marine protection, prevention, and response measures.
- Safety procedures are sufficient to mitigate the risk of a tanker accident within the Port of Vancouver waters and the federal OPP will further improve incident management and spill response capability on B.C.'s coast for all shipping.
- Any enhancements for fixed facilities should not be duplicative with existing government standards such as the B.C. Fire Code, *Canadian Environmental Protection Act*, and Environmental Emergency Regulations that already regulate and promote safe hazardous materials storage handling at fixed facilities.

- There are current federal and provincial requirements for training and emergency response exercise programs, including identifying issues before incidents occur. Federally-regulated pipelines must comply with the NEB's Remediation Process Guide which includes reporting, remediation assessment, development of a remedial action plan, and closure of the site. Federally-regulated pipelines also have the requirement to demonstrate that they have financial resources to match at a minimum their level of absolute liability- \$1 billion for pipelines carrying over 250,000 barrels per day.
- Pipeline companies as members of Canadian Environmental Protection Agency (CEPA) have developed industry best practices and initiatives that go beyond regulatory requirements. Emergency Assistance Agreements allow member companies to support each other in emergency situations with personnel, equipment, tools, or expert advice depending on the circumstances with the additional adoption of the Incident Command System which guides the response with focus on life safety, incident stabilization and protection of property and the environment. In the past five years, 15,000 spills have been reported in B.C. and during that time, CEPA members operating pipelines in B.C. have not had any incidents resulting in a spill.
- There should be a nationally consistent approach to spill management and regulation for railways.
- Any new pipelines in B.C. must be subject to regulations that ensure pipeline safety standards are to the highest available and include mandatory external hydrocarbon sensing technologies. The rationale for these measures is that currently accepted technologies, including Supervisory Control and Data Acquisition (SCADA) and Material/Mass Balance System (MBS), can fail to detect leaks between 1.5% to 3% of pipeline flow volume which could result in upwards of 100,000 litres per hour of crude oil leaking without detection on a pipeline transporting 500,000 barrels per day.
- Oil being transported in marine environments should be refined prior to reaching tidewater, since tidewater shipping of unrefined crude oil assumes unnecessary environmental risks and adding value to natural resources is of great economic benefit to the north, the Province, and the Nation.
- Discrepancies regarding spilled product recovery rates range of 15-97% for petroleum products claimed in various publications need to be resolved.
- There appears to be a confusion amongst oil spill professionals about what constitutes 'success' when mitigating an oil spill. WCMRC considers the 'clean-up' of the Marine Vessel Marathassa to be an example of a successful clean-up operation. Under ideal conditions of calm water without

fog or snow in the middle of a modern city, WCMRC managed to recover only 50% of a small oil spill. The largest oil spill mitigation effort the world has ever seen was British Petroleum's mitigation effort to deal with the Deepwater Horizon (DWH) oil spill in 2010; they recovered 3% of the oil. Neither of these examples can be considered a success, success may be defined as 96-100% of the spilled oil removed from the water and essentially no shoreline and fishing grounds contaminated with oil. The respondent described how current clean-up methods cannot meet any reasonable expectation of clean-up rate and then described the new technology and procedures necessary meet such an expectation.

- There was jurisdictional confusion during a diesel spill into marine waters a few years ago. There should be clear documentation available for the various agencies of responsibility.
- In case of spills affecting many individuals, the ministry should provide support to individuals to facilitate class actions.

6.4 Filling in the gaps

- Enhancements to spill preparedness and response and any associated costs should be targeted towards the sectors and areas where gaps exist, and not penalize or place undue burden or costs on responsible operators that already have robust and effective spill programs in B.C.
- The public is largely left out of decision making; affected groups need timely and consistent access to trusted information.
- Those people with the most to lose from oil pollution must have a voice in the decisions that put their livelihoods and communities at risk. Need independent oversight by the communities that stand to be affected by a spill. This should include municipal governments, tourism operators, fisheries workers, environmental groups, and other community stakeholders.
- Spill response agencies must recognize the rights and title of Indigenous communities and inform them of a spill within their territories as soon as they are aware. Responders must also be aware of Indigenous community standards through land code laws and regimes or traditional law which need to be considered.
- One concern about current oil-by-rail response plans is a heavy reliance on local first responders. Many are volunteer fire fighters who have not been consulted or trained to deal with the potential size, toxicity, and impact of such spills. The new policy only addresses adding spill response times to some plans but needs to also review who is slated to initially respond, what skills and resources they have, and review of potential deployment times under worst-case

scenarios (e.g. foggy days when airplanes can not land, stormy winter weather when driving slower and longer, etc.).

- More research into harmful effects of response actions is needed (e.g. in situ burning, dispersant use, high pressure shoreline washing).
- There is a need to separate the funding of spill response from the actual spill response (government and community directed).
- The ministry should implement a polluter-payer tax and liability mechanism, so that funds are held in trust for immediate compensation for spill response.
- The ministry should create a resource damage assessment process using the Washington State model regarding funding and distribution of funds.
- Some areas that need further exploration, study, or deeper policy development are aquatic and terrestrial transport of liquefied natural gas, Articulated Tug-Barges (ATBs), pusher-tugs, newer/under-regulated technologies of oil transport, coking and metallurgical coal shipments by rail and tanker, and petrochemical substances which are not subject to mitigation in liquid or semi-solid form such as benzene, a volatile gas that is regularly transported throughout B.C.
- Primitive and often destructive tools form the core of oil spill mitigation for the oil industry and the governments. For example, Corexit (chemical dispersant) and floating oil spill boom/small skimmer devices are 50-year-old technologies that have always failed to protect the ocean and coastlines from marine spills. New technologies are available (e.g. EST response vessel technology currently in development) and more research and development is needed.
- Diluted bitumen behavior does not fall within the range of conventional oil products and conventional mechanical recovery methods are not effective.
- No Canadian research has been done on new technology for keeping spilled oil off the shoreline and effectively removed from the environment.
- The 2018 Sanchi incident (Iranian freighter collided with a Chinese tanker) demonstrates the inadequacy of response methods for spilled condensate at sea.
- Environment and Climate Change Canada is exploring the concept of a joint Ottawa-B.C. panel of scientists to enhance existing research on oil spills.

- B.C.'s consultation paper on oil spill management left out discussion of the federal policies and programs that ensure the safe transport of oil products.
- Flags of convenience should not be used in marine shipping. It is unacceptable that a shipper can transfer its responsibility to a vessel registered in a far-off place, so the citizens of B.C. will never be able to recover costs and economic losses. Liability for the consequences of a marine spill must rest with the original shipper until it has left local waters.

6.5 Spill reporting

- Along with accurate spill evaluations, clean-up needs to be vigorously monitored and publicly reported.
- For communications and notifications, include renters and visitors and use phone warning alerts.

6.6 Managing potential unintended consequences of new policy and legislation

- Assess any new regulations or policy development that could impact the upstream oil and natural gas industry's ability to be competitive with other jurisdictions, including international markets.
- Remain committed to a one-window approach for all provincially regulated oil and gas activities through the B.C. Oil and Gas Commission.
- Assess and streamline any proposed regulations against provincial and federal requirements to ensure harmonization and reduce regulatory complexity.
- Consider practical quantity and toxicity thresholds and volume of reporting and subsequent administrative burden on both responsible persons and the ministry when setting these thresholds.
- Communicate clear endpoints, so that sampling activities can be appropriately planned and concluded after defined thresholds are met.
- Ensure flexibility for site specific conditions; for example, sensitive sites where monitoring, sampling, or remediation activity could be impractical or damaging to the natural environment.

- The focus of Phase Two Enhancement to Spill Management in B.C. appears to be introducing preparedness and response concepts that would not be applied uniformly across all carriers of liquid petroleum products. To enhance measures to protect the public and environment, expectations should be unbiased and applied uniformly based on an assessment of risk, mitigation and preparedness activities. However, it appears that the ministry is generating targeted and potentially biased legislation (e.g. high volume regulated persons singles out some companies and does not include others). It is also unclear as to whether new regulations would apply to companies regulated by the B.C. Oil and Gas Commission.

6.7 Responder qualifications

- There is broad support for responders to be trained before they can respond to spills. Canadian Emergency Response Contractors Association (CERCA) has well defined training procedures and certification processes as defined in the *Transportation Emergency Response Service Provider Standard*.