



Ministry of Environment & Climate Change Strategy

TECHNICAL WORKING GROUPS REPORT

**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 & Climate Change Strategy (the ministry) released *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 was heard on 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 October 2017, the Government of British Columbia approved three new regulations that brought Division 2.1 Spill Preparedness, Response and Recovery of the *Environmental Management Act 2003 (EMA)* into force and established improved requirements for spill preparedness for liquid petroleum products across transportation sectors while requiring stringent response and environmental recovery actions from all spillers. Collectively, these new requirements are known as the Phase One enhancements for spill management in B.C.

The Ministry of Environment & Climate Change Strategy (the ministry) is currently considering four Phase Two policy concepts to improve responses in the event of spills. Between May and August 2018, the ministry received input through technical working groups on four Phase Two topics, namely:

- 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 objective of each technical working group, one group assigned to each policy topic, was to receive policy recommendations and comments on proposed policy from a range of experts involved in the use, storage, and transport of hazardous materials, as well as those with expertise in spill preparedness and response and those who are impacted by spills when they do occur.

This report summarizes participant comments related to the four Phase Two topics as well as a discussion on how these comments might influence ministry policy, requirements, and regulations. Feedback has been summarized throughout this report. It is organized by policy topic and by spill management theme.

2. ENGAGEMENT PROCESS

Ministry staff developed background materials for the technical working group participants to review and then facilitated discussions in face-to-face meetings and conference calls. In response to technical working group input, the ministry provided clarifications and made adjustments to the initial policy direction. Both the input received and the ministry response as of August 2018 are provided within this report. The content of this report was offered to all technical working group participants for review and their final comments were appropriately incorporated.

3. RESPONSE TIMES

3.1 Topic Overview

Response times refers to linking the achievement of critical response actions, also known as milestones, to timeframes within which they must be initiated or completed. The sooner effective response actions are initiated, the less severe the impacts will be. The Province has a significant interest in ensuring that these milestones are met in a timely manner to minimize impacts and protect human health and the environment.

Other than the requirement to immediately report a spill, response times are not currently regulated. However, during a response, the ministry could order a spiller to take specific response actions and set out time frames within which those specific actions must be completed.

3.2 Summary of Proposed Policy

The ministry is exploring response times for:

- Departure from home base following notification of a spill with equipment to conduct initial assessment, containment, and clean-up actions;
- Arrival at a spill site to conduct initial assessment, containment, and clean-up actions; and
- Escalating containment and clean-up activities with additional responders and equipment.

The Intentions Paper that was circulated by the ministry in February 2018 discussed establishing response times as both planning standards for all regulated persons (e.g. pipeline, rail, and highway transporters), as well as performance standards for high-volume regulated persons (e.g. pipeline and rail only).

Planning standards would require that regulated persons demonstrate in their Spill Contingency Plans their ability to respond in a timely manner anywhere along their transportation route. Performance standards would require spillers to initiate specific response actions within prescribed time-frames following an actual spill.

3.3 Key Themes

3.3.1 Response Milestones

The ministry proposed five response milestones in the Intentions Paper to ensure that response actions progress appropriately. The technical working group was requested to consider the following milestones as planning standards (see Appendix 1), their feedback is summarized below.

Milestone 1: Reporting and Notification

Actions and Definitions

- It was suggested to remove Incident Command System (ICS) considerations from this milestone. ICS is already covered as a section in the Spill Contingency Plan of the regulated person.

Notifications

- Participants noted the need for clarity around the notion of to whom they must provide a notification to in the event of a spill. There is notification confusion during multi-jurisdictional spills.
- The notion of reporting an ‘imminent’ spill (i.e. something that is about to happen) is far different than the notion of a ‘potential’ spill. There is a potential for spills to happen everywhere. Some participants disagree that potential spills should be immediately reported to Emergency Management British Columbia (EMBC) and stacked against either a planning or performance standard.
- Some participants noted that the word ‘immediately’ should be replaced with the phrase “as soon as practical,” something that better reflects the reality of an emergency.
- It was suggested that the notification procedure should only refer to internal (e.g. company reporting protocol) and regulatory reporting (i.e. EMBC who will notify other agencies, local governments, municipalities and Indigenous communities as necessary) to maintain a one-window approach, avoid duplication, and avoid mixed messaging.
- Local governments and Indigenous communities are often forgotten in the notification process.

Response Time

- Participants suggested that the timeline for reporting events should commence only when the spill has been confirmed. This is because there are often false spills reported to regulatory agencies by responsible persons.

Milestone 2: Departure

Actions and Definitions

- As noted in Appendix 2, the definition for ‘on-site’ was revised with suggestions from participants.

Regulate Departure or Arrival Time

- It was suggested that the ministry should mandate either arrival or the departure times, but not both. Some participants said that departure to the spill site is easier to regulate because there is more certainty on when you can depart than when you arrive due to extenuating circumstances. Others argued “I do not care when you leave for a spill, I care when you arrive.”

Exemptions and Extenuating Circumstances

- Departure times must account for extenuating circumstances. Participants noted inclement weather, communication infrastructure problems, road closures, and access constraints as examples of extenuating factors that could delay a spill response and jeopardize responder safety. The speed of the response can also be influenced by the time and day of the spill – responses are likely to be slower on statutory holidays and after normal business hours, for example.
- There ought to be exemptions if an action is already covered by another regulatory body. It was suggested that instead of an exemption from the new regulations of the ministry, a phrase such as “defer to existing regulatory requirements” would be more appropriate and practical.

Response Time

- The following additional concerns were voiced regarding response times:
 - There is a lack of hazmat trained and competent professionals, as well as a non-uniform distribution of hazmat trained professionals in the province (i.e. most professionals are located in the Lower Mainland). In particular, trucking transporters are largely reliant on

- third-party contractors. As such, response times are limited by the ability of those contractors to respond.
- Indigenous groups, particularly remote communities, are willing and interested in undertaking spill response training. If properly trained, this is one method by which they can best protect their territory and accelerate the spill confirmation and site assessment process.
 - Every Indigenous group differs in terms of their needs and their level of capacity. There is a need to work individually on training and capacity. The Province should not be overly prescriptive.
 - It was noted that Indigenous responders would likely need to meet the safety and occupational health and safety requirements of regulated persons or response organizations before they can be used as contractors.
 - As Indigenous persons are not generally offered full time employment, it can be difficult to find, train, and retain willing participants for spill response. This same issue is faced by response organizations. Furthermore, it is difficult to maintain the level of training needed for 'worst-case scenario' spills. Consideration ought to be given on how Indigenous responders will be provided with refresher training.
 - One participant noted that contractual agreements and insurance requirements needed for Indigenous responders working with regulated persons could take a long time to develop. In the interim, it may be useful to also provide hazardous materials training to public first responders, so they could act as an additional response resource if required. Training efforts for small community's public responders will allow for the scene to be secured until more adequately trained responders can be dispatched to the scene.
 - Some participants suggested that the ministry should assume a regulatory role in response time planning (e.g. specify the training needed for persons that are completing the actions described in Milestone 2 and Milestone 3).
 - The cost and time it will take for industry to purchase spill response equipment and storage facilities to house the equipment is significant.
 - Trucking transporters do not have fixed transportation routes or control points like the pipeline and rail sector. Spills can happen anywhere in the province. One suggestion was for the Province to establish control points on key transportation corridors.

- If standards are too rigorous, some trucking companies will be inclined to discontinue fuel delivery services to remote communities. Alternatively, the cost of delivery will increase, and the cost will be passed on to the communities.
- Most participants agreed that 1 - 1.5 hour(s) is appropriate for departure from their home base location, however, some suggested a 1 - 2 hour(s) response time is more suitable to account for after-hours operations.

Identified Gaps

- The Province ought to specify if public health risk assessments are included in the definition of 'site assessment' that was referenced in the description for Milestone 2. If so, further clarity is necessary regarding the roles and responsibilities of responsible persons associated with public health risk assessments. Guidance material produced by the ministry would be necessary.
- There is a need to include local Indigenous knowledge in the site assessment.
- It was suggested that Indigenous communities and the ministry should explore more options for facilitating partnerships, training, and working agreements. As a template, the Province should review the approaches used by several successful federal marine response partnerships such as the Canadian Coast Guard Indigenous Intern Pilot Program, the Environmental Response Internship Program, the Coastal Guardian Watchmen, and the Heiltsuk Horizon Maritime Services Limited initiative.
 - Industry will do their part in providing training.
 - Response organizations have limited capacity to provide training.
 - There needs to be a long-term solution for engagement.
- These response partnerships with Indigenous communities would instill more confidence that regulated persons are not wasting their money on unattended equipment caches as they would be used by Indigenous responders in the event of a spill.
- The participants would like more clarity on the Indigenous component and how the Province intends to build capacity. The workforce is needed, but the funding is not there.
- Clarity is needed on whether the ministry would accept a notification from someone on behalf of the regulated person (e.g. a contractor). The trucking industry, in particular, relies on contracted professional responders and environmental professionals to provide on-scene assessments.

- Clarity is needed if remote sensing equipment is recognized as a means to assess or confirm the spill if the responsible person is not physically onsite. Some participants noted that remote assessments provide significant value to technical professionals on route to an incident by giving them an improved understanding of the response and logistical requirements.

Milestone 3: Site Assessment

Actions and Definitions

- Definitions for site assessment, initial response actions, and trained personnel were revised with suggestions from the technical working group participants. See Appendix 2 for revised definitions.
- The participants did not want to see responder safety and scene security compromised simply to fulfil a response time requirement.
- The participants agreed that impact assessments and spill monitoring are more associated with the recovery phase of a spill and should be removed from the response milestones.
- The focus of this milestone should be on documenting safety concerns, confirming the spilled product, estimating spill magnitude, identifying immediate receptors and resources at risk, and communicating relevant information to the appropriate persons.

Response Time

- We heard that an 8-hour response time for trucking transporters to respond to remote spills is not feasible for a province as vast as B.C.

Milestone 4: First Wave

Actions and Definitions

- The ministry should consider changing Milestones 4 and 5 to move away from determining the amount of response equipment required to be on-site based on a percentage of the worst-case scenario spill volume. Participants felt that the numbers were ambiguous and that they deal primarily with environmental recovery operations. The following suggestions were offered:
 - The focus should be on containment of the spilled material, rather than recovery operations, a consideration that more accurately reflects the sequence of events during an actual response;

- The intent of the milestone should be ensuring that regulated persons can continuously conduct response actions during the early stages of a response for a specified period of time;
- Conduct the site assessment (Milestone 3), then activate resources based on the assessment; and
- Consider changing the milestone wording to “an appropriate response” or “most likely spill scenario”, instead of “worst-case scenario spill volume”.

Equipment

- A regulated person, or spill response contractors acting on their behalf, cannot have an inventory for a worst-case volume as it would involve housing too many supplies. Regulated persons should plan to have enough equipment to start the initial response and keep crews active until additional supplies can arrive at the spill site.
- The participants agreed that it is difficult to define how much equipment is needed for recovery. It is easier to define amounts for containment.
- Participants mostly agreed that caches, even though they are well intended, are pointless if regulated persons do not have the responders trained to deploy and operate the equipment.
- Sending too much equipment overwhelms logistics. Regulated persons want the right equipment going to the right places and it should be reasonable within the response scenario.

Response Time

- There were opposing views that six hours is “...not a long time to have a large amount of equipment arrive.”
- If equipment caches are made a requirement of the new regulation, trucking transporters suggested that they are better placed with the responders, as they are trained to properly deploy equipment and it would be unreasonable to establish caches across the vast road network of B.C.
- We heard that because response is a cascading series of events, having one solution does not work because it is difficult to identify all the assets that need to be deployed by a certain time.

Milestone 5: Second Wave

Actions and Definitions

- Same discussion as in Milestone 4 - the ministry should consider combining Milestone 4 and Milestone 5.

Response Time

- Most participants agreed that 6 - 12 hours is reasonable for pipeline and rail, if it applies to containment and not to recovery.
- Trucking response times for all of B.C. should be increased. Specifically, it is unreasonable for spillers to have the first wave of additional response equipment and trained personnel on-site for all spills located in remote areas.

3.3.2 Planning Versus Performance Standards

The ministry is exploring whether all regulated persons should be required to demonstrate in their Spill Contingency Plans how they will complete critical response actions within prescribed timeframes and whether high-volume regulated persons – such as owners of all pipelines and railways transporting liquid petroleum products – should also be required to implement those response times should they experience a spill.

- If the Province is to regulate in this area, planning standards are generally supported as long as careful consideration is given to determining which response actions and milestones require time frames.
- We heard that the safety of first responders and the community should be prioritized over an arbitrarily prescribed response time.
- Most participants agreed that planning standards will ensure the placement of response resources along transportation routes in a manner that will enable a reduction in actual response times.
- We heard that the development of planning standards can demonstrate that industry and government are working together to ensure that response planning is well thought out. On the other hand, performance standards are viewed as counterproductive and punitive.
- We heard concerns that performance standards are impractical, jeopardize responder safety, require unreasonable staging of resources and, are unachievable due to the vast area of B.C., as well

as the presence of extenuating circumstances that impact response times (e.g. inclement weather, road closures, and communication of infrastructure problems).

- Participants noted that there are other mechanisms, such as those associated with the proposed loss of public and cultural use (LOPCU) regulation that act as incentives for spillers to respond in a timely manner. The longer it takes to respond, the more expensive it is for responsible persons.
- Some participants supported performance standards and felt that they would allow government to regulate more effectively. Performance standards would give municipalities and small communities confidence that help must arrive or else spillers would face penalties.

3.3.3 High Volume Transporters

The ministry is exploring requiring response time performance standards for all railway and pipeline operations that fall under the definition of a ‘regulated person’; this would be in addition to the requirement that all regulated persons comply with response time planning standards.

- Some participants felt that response times should be standardized across all regulated industries as small spills may be more damaging than larger spills depending on the spill location.
- There was concern that because trucking is arguably the riskiest way of transporting dangerous goods, it may not be wise to grant leeway on specified response times.
- Trucking transporters argued that because they carry a limited cargo supply, relative to pipelines and railways, and because most accidents are contained to the immediate localized area, the trucking industry should not be designated as high-volume transporters.

3.3.4 Implementation

For response times, the milestones would apply to all classes of regulated persons; however, the time associated with each milestone may differ amongst the types of transporters. Specific response times will be determined by considering the distance a pipeline, railway, or highway is located from a city, town, or municipality in combination with existing industry standards and input from the technical working group.

- Small communities commented that their environmental and response resources are just as important as those with larger populations. There was a concern over smaller communities being excluded from faster response times based on this policy.

- Not all populated areas will have spill responders and equipment (i.e. resources) located within their boundaries. Spill response training efforts for small community public responders is generally welcomed. Having local trained responders would allow for the spill site to be secured until more adequately trained and competent responders can be deployed.
- Various industry and response organization members noted that dedicated response personnel require steady work and experience to ensure that they are competent in hazardous materials management. Small communities only have a small number of spill incidents during which they can apply their training. Therefore, placing permanent staff in less populated areas is not a sustainable or effective way to manage spills throughout the province.
- Indigenous communities and remote municipalities believe that they are the populations that are most impacted by spills. They feel marginalized by the fact that they have slower response times than more densely populated areas.
- Regulated persons have a different level of preparedness across the province. They plan for the areas within which they operate, and how they need to get there, not on arbitrary boundaries.
- A participant noted that having response time requirements within the proposed GRP regulation may be an effective method of developing timely responses that incorporate region-specific differences. A similar framework has been employed in the United States for certain aspects of response planning. Such plans facilitate discussion, build awareness, and enhance response times.

3.3.5 Summary of Key Comments

1. Regulate planning standards only
 - Planning standards were generally supported, but performance standards were not; however, there were technical working group members present who wanted to see both planning and performance standards implemented.
 - Performance standards were considered to be impractical, likely to jeopardize responder safety, require unreasonable staging of resources, and generally unachievable due to the vast area of B.C. and existence of extenuating circumstances that may impact response times.
2. Seek alignment with other regulators
 - To avoid duplication, the ministry was encouraged to align response time requirements with those of federal partners where there are existing federal response time requirements, as long as those requirements ensure a timely and effective response.

3. Build on existing responder capacity in the province by training Indigenous responders
 - There is a need to create more training projects to enhance environmental response capabilities within Indigenous communities through the delivery of a training curriculum tailored to meet the needs of individual communities.
4. Condense the number of milestones to 3 versus 5
 - The ministry should mandate either arrival or the departure times, but not both; consider combining Milestone 4 and Milestone 5.
5. Focus milestones 4 and 5 around containment versus recovery
 - Redefine these milestones with the focus on containment rather than recovery and move away from determining the amount of response equipment required to be on-site based on a percentage of the 'worse-case scenario' spill volume.
6. Optimize Indigenous community inclusion
 - More scoping and research is required to develop an approach that would include Indigenous communities, so as to ensure that they have sufficient levels of response awareness and involvement during and following spill incidents.
7. Increase response times for the trucking industry
 - More scoping and research is required on what attainable response milestones are for the trucking industry in B.C.

Individual trucking companies do not have defined transportation routes and will be challenged to meet the proposed milestones, especially in remote areas of the province.

4 GEOGRAPHIC RESPONSE PLANS

4.1 Topic Overview

GRPs ensure environmental protection by identifying sensitive areas at risk from spills and by creating tactics for protecting them. GRPs are meant to aid the response community in the initial phase of a spill response. They prioritize tactical response strategies based on locations where spills might occur, as well as the proximity of those locations to sensitive natural, cultural, and economic resources. GRPs allow for

agreement on priorities and rapid placement of people and equipment before a spill occurs. By using GRPs, immediate and proper action can be taken to reduce impacts on sensitive resources.

Principals guiding the creation of inland provincial GRPs are:

- After a spill occurs, efforts to control and contain the spill at or near the source should be a top priority. Beyond those efforts, the booming strategies outlined in any available GRP should be implemented as soon as possible.
- GRPs are not meant to be rigid and can be altered if, during a spill, response circumstances arise that change the tactical direction of the GRP.
- GRPs help ensure consistency and coordination in the way sensitive natural resources are protected when spills occur.
- GRPs provide impacted parties such as Indigenous communities, municipalities, and the general public with a voice on areas of concern or importance to them.

The approach enabled by Part 7 of Division 2.1 EMA would require the Minister to identify areas that would benefit from inland GRPs and then designate one or more regulated person(s) operating in an area to develop the GRP. These amendments allow the ministry to outline what should be addressed by the strategies in a GRP. It includes tactics for protecting sensitive areas such as important animal habitat, threatened and endangered species, culturally significant areas, and historically significant sites.

4.2 Summary of Proposed Policy

The original policy intent explored whether regulated persons operating in particularly sensitive areas should be required to develop one of two types of land-based GRPs for those areas. Linear GRPs would require a series of GRPs next to each other along large-scale transportation corridors (e.g. pipelines, railroads, and major highways) and hot-spot GRPs that could be required at designated areas with high environmental and socio-cultural sensitivity (e.g. protected areas, sensitive habitat, salmon spawning streams, population centers, and archaeological sites) along with areas that are important to Indigenous communities. A basic framework for content was laid out, as well as a timeline for when GRPs should be completed.

The ministry proposal focuses on inland GRPs; however, the ministry will endeavour to work collaboratively with other organizations that are currently developing GRPs for the marine environment. Further policy for publishing, content, and template requirements, as well as responsibilities with respect to public engagement and consultation during GRP development and updating will be explored as will additional requirements with respect to a testing schedule for inland GRPs. Additional

requirements for the GRP advisory committees will include a list of those who must be included in the advisory committees, the governance structure, and the duties that the advisory committees will be required to carry out.

4.3 Key Themes

4.3.1 GRP Content

What should be included in a GRP?

The goal for GRP policy is for a system of land-based GRPs that provide sensitive areas with an additional level of preparation so initial tactical response actions advance rapidly if a spill occurs. Participants were asked to consider what features must be included in a GRP. Maps, access points, site communication details, Shoreline Cleanup and Assessment Technique (SCAT) procedures, tactics and strategies, project area description, and Incident Command System procedures¹ were listed as necessary. The locations of communities; municipal, territorial and Indigenous community boundaries, as well as the locations of traditional knowledge, cultural, and environmental resources were also considered necessary components of a GRP.

- Some participants wanted the notification strategies, Incident Command System procedures and equipment cache locations listed within the GRP so that other emergency responders can be aware of what resources might be available, while others mentioned that they would be better served if located within individual company's Spill Contingency Plans.
- Participants stressed the importance of avoiding duplication as much as possible with respect to the content already required in other planning documents such as Spill Contingency Plans and other emergency response plans.
- Participants of the technical working group stressed the importance of a consistent format and terminology with regards to the content outlined in a GRP to reduce confusion during response.
- One participant suggested that coordination by the ministry would ensure that templates and terminology are standardized. Even with a standardized template, some participants wanted it acknowledged that there may still be some variation in GRPs depending on who develops them, as well as the input received during their creation. A common set of terminology for describing GRPs was agreed upon:
 - Geographic Response Plan (GRP): Contains a collection of Geographic Response Strategies (GRSs).

¹ ICS procedures are a provincial standard but are not currently legislated.

- Geographic Response Strategy (GRS): A tactical plan tailored to protect an area of concern (AOC). Typically, a GRS is a 2 – 3-page document. There may be more than one strategy for each area of concern.
- Area of Concern (AOC): An identified sensitive area. These are areas with value or vulnerability. They must be susceptible to and be within the trajectory of a spill.
- Other items that were listed as important included seasonal flow changes, as well as resources and contractors in the area that able to carry out technical functions such as wildlife management and SCAT assessments.
- There were also comments about the need to collect and analyze baseline data to understand pre-spill conditions. It was recommended that most of this data be gathered through desktop review, although one participant mentioned the need for additional research in some areas of the province where there is little knowledge of current critical habitat for key species².
- Some participants suggested GRPs should take an all-hazards approach. There was also input into how they should overlap with emergency plans developed by local governments.
- Conversations took place with respect to the definition of ‘key infrastructure’ and the difference between key infrastructure and sensitive areas (see Appendix 3).
- Lastly, input was received from the technical working group with regards to seasonal variations and weather fluctuations (see Appendix 4). It was also noted that content requirements should not be overly prescriptive as there will be variations as it may be beneficial for some strategies to contain additional information beyond required baseline data.

4.3.2 GRP Advisory Committees

Advisory committee membership and responsibilities

GRPs could also require the establishment of an advisory committee for the development, review, testing, and updating of the GRP. Costs associated with participation in the advisory committee, as well as the reasonable costs of developing the GRP are paid for by designated regulated person(s) operating within the GRP area.

The overarching goal of the advisory committee is to have knowledgeable experts advise and help with GRP development to ensure that the GRP is comprehensive and inclusive of local concerns. The

² Kisumkalum salmon and Kitsumkalum River.

technical working group was asked to advise on the membership, duties, and responsibilities of the advisory committee.

- Respondents suggested that the advisory committee membership should consist only of those whose input is essential to the creation of the strategies associated with the GRPs. One participant suggested that this committee is more of a development committee, as creation of the strategies will be the goal. Participants added that Indigenous communities are essential members of this advisory committee. Some suggested the inclusion of EMBC and the Department of Indigenous Services Canada (DISC) in advisory committees. Others suggested members include the provincial and federal governments, response contractor(s), and local government emergency coordinators.
- One participant advised that advisory committees are not an effective way to engage local Non-Government Organizations (NGOs), municipalities, or Indigenous groups and that parties most impacted in the event of a spill should be engaged on an individual and regional basis.
- Some participants added that collaborative planning would need to have government leadership and a transparent process for there to be trust that the GRP will perform as intended. It was mentioned that this trust and support is important because knowing that there is a well-vetted GRP in place alleviates stress during an emergency. In general, the relationship building associated with strategy development between regulated persons and the community was said to be an important aspect of GRP development. One participant pointed to how this relationship works in a current emergency plan to include local participation of Indigenous communities in the Incident Command Structure during a spill response. Other participants reiterated that Indigenous communities at risk from spills must be adequately resourced to support GRP development, training, and implementation.
- It was cautioned that advisory committee requirements could slow down the development of GRPs and that engaging with communities can take a long time. Concern was expressed over the cost and burden associated with the establishment of advisory committees on the regulated community. It was advised that there will be communities who will refuse to participate in an advisory committee unless government leads the process either independently or in collaboration with potentially impacted parties. One participant mentioned that some communities will refuse to participate even if government leads the process. It was suggested that community outreach meetings be an essential part of creating interest in participation in the advisory committees. Some participants recommended community outreach meetings be led by government.
- Concerns were expressed over the method of selecting plan leaders for an advisory committee when there are multiple small carriers operating in an area. This was raised again with respect to the trucking industry and how plan leaders will be selected in a way that ensures fairness in locations where multiple trucking companies, including out-of-province firms, operate. It was suggested by

one participant that these questions point to a need for the ministry to chair and/or lead both the committees and the GRP process.

- Some participants expressed liability concerns associated with GRPs due to the obligation to consider input from Indigenous groups, local governments, NGOs and others given that the responsibility to respond to a spill lies the spiller. There were also concerns raised over the liability of the advisory committee if the GRPs do not perform as intended.
- The need to have policy in place concerning conflict resolution for when the advisory committee cannot reach consensus was communicated. It was suggested that an oversight role may be necessary for advisory committees. It was suggested that in areas where multiple companies are plan leaders, the ministry ought to be the lead or chair the committees.

4.3.3 Public Engagement

Who should be engaged, when should they be engaged, and how should advice be considered?

In addition to the advisory committee, GRP development will require a period of public engagement.

- The value of input from local government first responders and medical and public health officers was noted by the technical working group. Several participants felt that engagement requirements should be specific to the GRP area and will vary depending on community makeup. There was a concern over the ability of some communities to participate in engagement due to lack of capacity. Because of this, it was advised not to be overly prescriptive with the requirements as they should change geographically.
- Some participants mentioned a need for guidance to be in place for how to carry out engagement; many agreed that there should be a mechanism for quality assurance. Numerous respondents advocated for government leadership in the development of GRPs, particularly with respect to consultation, engagement and community outreach.
- A lengthy list of potential stakeholders and affected parties was produced by the technical working group. As this was a scoping exercise, no consensus was reached regarding who must be engaged. The list that was produced included local responders, local governments, stewardship groups and NGOs, landowners, recreational groups, health departments, agricultural producers, industry associations, and tenure holders, as well as others.
- As for a schedule for engagement, three options were suggested:
 1. Before the GRP is developed, stakeholders and affected parties would be asked for input into what they would like to see in a GRP, as well as what they would like protected.

2. After the draft GRP is produced (pre-implementation), stakeholders and affected parties would be asked to comment on the draft and whether there is anything missing.
 3. In a three to four-year cycle after the GRP is posted, GRP reflection and continual improvement is necessary.
- One participant noted that once the GRP is posted online, public feedback could be provided electronically at any time. Methods for engagement were suggested that included the construction of a central website that notified the public of activities and schedules. Two participants mentioned the need for engagement to be a transparent process and suggested government be a third-party and/or require engagement reports that include stakeholder and affected-party review. Again, it was advised that engagement would be better attended and more supported if it was led by government.
 - Finally, it was expressed that while some stakeholders and affected parties will need to be engaged and consulted directly, others will need to have a more active role in the input into strategies and the locations for tactics. Participants also emphasized a need to be aware of the potential burden and increased workload that comes with engagement and how this could delay the creation of the plans.

4.3.4 Review and Updating

Review and updating schedule for completed GRPs

- Participants mentioned a need to align updating and review schedules with existing regulations to ensure efficiency. Specifically, it was suggested that expectations should align with federal environmental emergency regulations.
- The group agreed that updating is a minor change to a GRP, whereas a review is a formal evaluation of the GRP on a set frequency. Options for a review schedule varied from annually to once every five years. It was suggested that this scheduling requirement may vary depending on the location of the GRP and the amount of activity or change occurring in an area. As for an updating schedule, it was suggested that this be an ongoing process.
- Some participants noted that updates would be necessary when contact information changed with the overall expectation being that the GRPs are current and up-to-date. Further to this, it was suggested by one participant that each time a major change is made to a GRP, a review should be initiated.

4.3.5 Testing Completed GRPs

Schedule for testing completed GRPs, types of tests, and components to be tested

An order to develop a GRP will include requirements around testing completed GRPs.

- Participants suggested there should be three types of tests: discussion, operations, and worst-case spill tests. As for frequency, a three-year cycle was suggested.
- One participant mentioned the GRPs should be tested twice a year to take into consideration changing weather conditions. It was suggested that the testing requirements should vary depending on the location of the GRP. The point that site visits could be substituted in some instances for full-scale tests was raised, as was the need to conduct additional tests if conditions change in an area.
- Some participants brought up a need for awareness of the resources required to complete a test for a GRP, especially if it is a large GRP with many strategies. It was cautioned that the Province should be aware of how many GRPs a company has that require testing as well as response capacity because testing can be a considerable burden on resources and time. Lastly, the need for harmonization with other regulators was stressed as was the need to harmonize with provincially regulated tests for Spill Contingency Plans.
- As for the test itself, some participants suggested they reflect real-life spills and be unannounced. One participant also wanted tests to be transparent and include stakeholders and potentially affected parties as observers or participants.
- Lastly, concerns were raised over the ability of the trucking industry to test completed GRPs and how this will be implemented if the responsibility lies with more than one company.

4.3.6 Implementation of GRPs

Timeline for GRPs to be completed

The 2018 Intentions Paper proposes inland GRPs as linear planning zones around pipeline and rail corridors first, then around high-use highways, and finally as ‘hot spot’ inland GRP areas. ‘Hot-spot’ inland GRPs are smaller than linear GRPs and identify locations where a major transportation corridor may not be present, but strategies could be positioned to protect sensitive, high-value assets.

- In general, some participants of the technical working group noted that the first step of the implementation plan should cover high-volume transportation corridors in B.C. and ensure that the Province has a method for protecting sensitive resources in those areas. Other respondents noted that this implementation schedule places the burden of work on sectors (e.g. pipeline and rail) that are already regulated, and the Province needs to take duplication into consideration.

- Participants cautioned that although a three-year implementation timeline for linear GRPs by rail and pipeline may be achievable, engagement requirements will be the determining factor for all timelines. There was on-going dialogue regarding the need for thorough stakeholder input and how this can be done effectively with the recognition that this may slow GRP development.
- Many participants expressed concern over step two and three of the proposed implementation plan and the ability of the trucking sector to coordinate and develop GRPs. Concern was expressed over the financial implications GRPs will have on the trucking industry and small companies.
- Some participants expressed concern over how the designation of one or more regulated persons to develop a GRP will consider competition if there are highway, rail, and pipeline transporters operating in the same area.
- A few participants requested clarity on the linear GRP zones and how they will take into consideration watershed and jurisdictional boundaries. Lastly, some participants advised that it is more important to complete strategies and work towards continual improvement than it is to create ideal GRPs from the start.
- There was also discussion over the benefits and disadvantages of developing a pilot GRP.

4.3.7 Publishing GRPs

Publication requirements for completed GRPs

- Participants of the technical working group agreed that completed GRPs should be published on a central website with open access to the public. That said, the need to be aware of sensitive data was raised by several participants and the importance of protecting sensitive and restricted data was an integral part of this discussion. It was recommended that there is a need to evaluate whether sensitive data can be stored somewhere other than the GRP. It was cautioned that some Indigenous communities and stakeholders will be reluctant to take part in the development of GRPs if sensitive data is not collected and stored appropriately.
- Participants were interested in seeing a process where completed two-page strategies follow consistent formatting and terminology and are posted on a government-facing website. Some participants mentioned that this formatting and terminology does not need to necessarily be identical to allow for the variability of pre-existing GRPs. It was noted that a way to ensure consistency and standardization is to have the ministry oversee the process. Lastly, it was requested that if a GRP is created for a waterbody, it would be beneficial for federal agencies to be aware of it and be able to access it.

4.3.8 Activation of a GRP

Participants were asked to comment on what triggers the activation of a GRP. The following was suggested:

- If a spill of a regulated substance occurs above an established threshold and the regulated person cannot control it.
- If the spill will impact an identified area of concern where a GRS is developed.
- The Incident Commander decides to form Unified Command (UC).

4.3.9 Summary of Key Comments

1. The Province should have a leadership role in the creation of inland GRPs, especially with regards to engagement and community outreach.
2. Engagement and public consultation requirements are an important part of GRP development. Timelines for GRP development need to reflect that this can be a lengthy process.
3. Local traditional knowledge must be used in developing GRPs to ensure Indigenous rights and interests can be protected appropriately in the event of an emergency.
4. GRPs should be published on a central website with open accessibility while taking into consideration the need for secure cultural and sensitive data.
5. Inland GRPs should be published using a standard template and with common terminology.
6. Concerns were raised about the ability of the trucking sector to coordinate for GRP development and testing, as well as the additional onus GRPs would place on this sector so soon after the Spill Contingency Plan requirements came into force.
7. Clarity is required for the coordination of regulated persons operating in an area if more than one regulated person is ordered to create a GRP. Concerns were raised over community engagement fatigue and having more than one GRP in an area and how this will lead to confusion during a response.
8. Participants felt that there needed to be additional training resources for communities at risk of spills and that they needed to be resourced to respond to spills and support GRP development.

9. Participants reiterated that people are looking for a transparent and accountable mechanism in place for the GRPs to be supported by the communities that the GRPs are meant to protect.

5 ADDRESSING LOSS OF PUBLIC AND CULTURAL USE FROM SPILLS

5.1 Topic Overview

Spills impact not only the environment, but also the cultural and natural resources of communities. The decreased enjoyment of, or inability to fish, hunt, recreate, pass down traditions, and earn income are just some of the impacts on communities following spill incidents. These impacts may be temporary or long-lasting and impact the social, physical, and mental health of communities. Currently, there is no legal provision holding all spillers liable for the effects of spills on communities.

The ministry proposed the following definition of *loss of public and cultural use* to the technical working group:

'Loss' refers to the complete or partial inability to access, use, or enjoy a public or cultural resource as a result of a spill or spill response actions.

'Public' refers to any place or resource that is publicly owned, including ownership from federal, provincial, and local and First Nations governments.

'Cultural' refers to any place or resource identified as being important to the history, beliefs, or way of life for a community, including indigenous communities.

In addition to the loss of use impacts, local communities are frequently the first line of defense in responding to spill incidents. Significant response and recovery expenses are often incurred by local and Indigenous communities following spill incidents. Currently, the amendments to the EMA and the Spill Preparedness, Response and Recovery Regulation (SPRRR) do not allow for the recovery of costs incurred by local and Indigenous communities related to spill incidents.

The Province is seeking to further align spiller requirements with the polluter-pay principle by ensuring that polluters are responsible for all damages caused by spills, including direct and indirect effects of a spill on communities.

5.2 Summary of Proposed Policy

The proposed policy explored an impact assessment approach to addressing loss of public and cultural use by adding a provision into the existing recovery plan requirements in the SPRRR. With this change, responsible persons (i.e. spillers) would also be required to evaluate impacts of a loss of use or enjoyment of a public and/or cultural resource to a community in addition to assessing impacts on the environment, human health, and infrastructure in a recovery plan. The process is proposed to be a collaborative effort between the impacted community and the responsible person, whereby the spiller meets with the community to determine how they have been impacted and develop a plan to address the impacts through compensatory actions. If such actions cannot fully counteract the impacts, the spiller must address the remaining impact through direct compensation. The process is proposed to follow these steps:

1. Once the emergency response phase concludes, the ministry orders the spiller to prepare and submit a recovery plan, including content on loss of public and cultural use.
2. Spiller meets with community representatives to understand the impacts on the community from the loss of use or enjoyment of cultural and public resources.
3. Spiller develops a plan to address the impacts through actions and/or direct compensation.
4. Spiller presents the proposed plan to the community for feedback and discussion.
5. Spiller revises plan as needed until an agreement is reached with the impacted community.
6. Spiller submits the final plan for approval to the ministry.

5.3 Key Themes

There were a variety of viewpoints in the comments from the technical working group participants. Feedback has been summarized in the following subsections and organized by theme.

5.3.1 Scope and Application

The goal of the ministry was to understand how to define and apply the loss of public and cultural use policy topic. The technical working group participants provided the following points on this subject:

- It is too difficult to calculate the value of intangible impacts (e.g. existence value, bequest value, and cultural value); only tangible/easily quantifiable impacts should be considered.

- Intangible impacts are important to consider.
- Quantifiable damages can already be sought through the courts or other claims processes depending on the source of the spill and the type of impact (e.g. *Fisheries Act*, National Energy Board Tribunal process, Fund for Rail Incidents Involving Designated Goods, Ship-source Oil Pollution Fund, *Marine Liability Act*).
- Concern over duplication and/or contradiction with existing compensation mechanisms and regimes.
- Community health impact assessments must be considered, potentially separate from loss of public and cultural use.
- Need to define the difference between an economic impact to a community versus to an individual or business; if only community-level impacts are in scope, there is increased likelihood of duplication (i.e. drop in tourism due to a spill impacts the economy of an entire community which would fall under the scope of loss of public and cultural use), but individual operators could seek economic damages through the courts.
- Open-ended liability is an issue for insurers, as it could cause some spillers to go bankrupt.
- Loss of public and cultural use damages are not currently covered by ICBC and could result in higher premiums for commercial transporters registered in B.C.
- Increased liability and insurance costs could result in transporters being unwilling to deliver fuel to remote communities, especially in winter.
- The ministry must define limits or endpoints to ensure that negotiations with impacted communities are reasonable.
- Impacts due to highway and road closures as a result of a spill incident should not be in scope.

5.3.2 Regulatory Process

The goal of the ministry was to determine the role of government, the spiller, and impacted communities in ensuring that loss of public and cultural use is addressed following a spill incident. Technical working group participants expressed the following concerns:

- The proposed approach is cumbersome and unlikely to be timely and efficient. There is too much government involvement.

- The recovery plan requirements are large enough, adding more content is inefficient for both the environmental recovery process and the loss of public and cultural use process.
- It is awkward for government to have sign-off authority on an agreement made between a community and a spiller, especially in the case of Indigenous titleholders.
- Need a dispute resolution process; unlikely that communities and spillers will come to an agreement over the value of impacts. The government should only get involved when disputes cannot be resolved.
- Proposed approach may be more time-consuming than resolving directly or through the courts.
- Spillers are not currently liable for impacts to communities due to loss of use, need legal backstop.
- Government should play a role in supporting impacted communities to understand avenues and process for compensation.
- Indigenous communities may not be in favor of having contractors hired by the spiller doing the assessment; need options to have control over the process and the assessment.
- Communities may not have the capacity to take spillers to court or to participate in the assessment process.
- Need to define 'community', as many groups can claim an impact due to a spill. Government must define who should be consulted and compensated.
- In the case of a mystery spill or bankrupt spiller, government should take on liability and prepare to compensate communities as would occur with a willing and able spiller.

5.3.3 Cost Recovery for Communities

Determine the best way for local authorities and Indigenous communities to seek recovery of their costs

The ministry wants to ensure that communities can recover the costs of participating in the response and recovery phases of a spill incident. Participants provided the following feedback:

- Communities should be provided with a legal mechanism for recovering their costs.
- Claims for response and environmental recovery costs related to spill incidents should be a civil matter to be negotiated between the impacted parties and the responsible person or owner of the product spilled, or alternatively decided in a court of law which is already an existing legal mechanism.

- The ministry should administratively and/or financially support communities in the event of an orphan spill or in dealing with an insolvent, unwilling, or unable responsible person or owner.
- The ministry should assist communities in filing claims with federal funding mechanisms if necessary.

Determine ‘reasonableness’ to clarify what costs should be recoverable from responsible persons and owners

- Costs associated with the direction of Unified Command or the Incident Commander, ensuring that proper safety measures are in place and the work performed is not counterproductive to the response, should be considered reasonable, however, it is difficult to address what types of costs should be considered reasonable as there are so many unknown variables; what is reasonable to one person may not be reasonable to another.
- Measures taken based on expert advice, evidence, likelihood of success, and other relevant information available at the time should be considered in determining ‘reasonableness’.
- Use of response vehicles, salaries for response personnel, and communication costs should be considered reasonable.
- Contractors that Indigenous communities hire for third-party review of materials or supervision and oversight of ongoing work should be considered reasonable; some sort of professional designation should be required.
- The use of the resources of the local health authority should be considered a reasonable cost.

Provide guidance on appropriate documentation of costs

- Local authorities and Indigenous communities need to have a straightforward and timely process for recovery of their costs.
- Not all communities will know how to use Incident Command System documentation.
- Time sheets, equipment rental receipts, gas receipts, insurance documentation, food – any expense submitted for reimbursement should have back-up documentation.

5.3.4 Summary of Key Comments

1. Timeliness and efficiency are key factors in determining an effective process to address loss of public and cultural use
 - Need a less cumbersome approach with less government oversight. Best to first rely on existing processes and allow the impacted parties to work with the spiller to resolve issues before there is any government involvement.
 - Loss of public and cultural use scope needs to be well-defined and potentially narrowed in order to ensure it is feasible to address.
2. Government should play a role in supporting impacted communities
 - Lack of capacity in communities, especially remote and Indigenous communities, can be a barrier to participating in assessment and negotiation processes, as well as submitting applications to existing funding regimes.
 - Support resources (e.g. guidance documents, online application information) are needed for spillers and impacted communities to enable compensation for impacts.
3. Many avenues already exist for communities to seek compensation
 - A comprehensive guide to compensation for impacted communities and individuals would be a valuable resource.
 - The Province should avoid duplication and contradiction where avenues for compensation already exist.
 - Gap analysis is needed to identify situations where avenues for compensation are required.
4. Communities need a legal ability to recover their direct response and recovery costs
 - Government should define what costs are eligible to be recovered.
 - Government should provide resources to support communities in documenting and recovering their costs from spillers.

6 MAXIMIZING THE MARINE APPLICATION OF MINISTRY OF ENVIRONMENT EMERGENCY REGULATORY POWERS

6.1 Topic Overview

The Province of B.C. has a significant interest in maximizing the application of the regulatory authority of the ministry with respect to spill prevention, preparedness, response, and recovery. Part 7 of Division 2.1 EMA and its associated regulations may apply to marine spills in some respects, all while respecting and not conflicting with federal authority, including the new reporting and recovery requirements and in cases where a land-based spill migrates to the marine environment.

6.2 Summary of Proposed Policy

The original policy intent explored whether there are additional opportunities within the jurisdiction of the Province of B.C. to enhance provincial regulations with respect to all spills in, or affecting, the marine environment, including ship-source spills. The intention of the ministry remains to develop policies in continued collaboration and coordination between provincial and federal regulatory frameworks.

6.3 Key Themes

5.3.5 Provincial Jurisdiction and Resources

Response to a marine pollution event within B.C. would very likely involve multiple stakeholders, affected parties, and jurisdictions. The ministry wants to ensure that the interests of British Columbians are fully protected following spills in, or affecting, the marine environment.

Gain clarity on the jurisdictional boundary among provincial, federal and Indigenous authorities

- Some participants expressed concern that extending provincial authority to the marine environment is confusing and unreasonable. They proposed status quo, where:
 - The Province has clear jurisdiction over land-based spills, whereas the federal government has jurisdiction over the marine environment;
 - The polluter is responsible for the cost of spill response and would work within an Incident Command System framework as part of Unified Command; and

- Industry funds Transport Canada certified Response Organizations such as Western Canada Marine Response Corporation (WCMRC) to plan and respond to marine spills that are ship-source in nature or associated with oil handling facilities.
- However, participants emphasized the importance of clarifying where that ‘invisible’ boundary line between where federal and provincial jurisdiction exists. They recommended including a definition and citing examples.

Identified gaps

- Gaps identified by participants included:
 - The role of Indigenous communities and recognition of their rights, interests, and specific concerns; and
 - The role of municipalities, communities, and Indigenous communities in an incident and in Unified Command.

Although it was noted that some of these gaps are being addressed through the Greater Vancouver Integrated Response Plan (GVIRP) process, which is currently being extended from Vancouver.

5.3.6 Spill Reporting and Notifications

The ministry is seeking to require compliance with the Spill Reporting Regulation for marine spills where provincial resources are impacted.

Ensure provincial and federal requirements are aligned and well understood by potential marine spillers

- Participants noted the need to identify all existing and future federal and provincial agreements and to make them accessible where possible.
- Participants cautioned that there is a need for common terminology that aligns with current legislation when referencing notifications, reporting, and alerts among governments.

Continued collaboration for alerting and notification procedures among the Canadian Coast Guard, EMBC, and the ministry following marine spills

- With regards to spill reporting and notification, participants identified flow and communication as significant issues rather than specific laws, policies, and procedures.

- There is a possible disconnect between the ministry and EMBC during spill incidents and this disconnect filters down to local jurisdictions. Participants suggested streamlining communications and roles and responsibilities between provincial agencies.
- Local authorities and Indigenous communities should be engaged at the outset and included in Unified Command because residents reach out to their local jurisdictions for information first.
- Participants also noted a need for greater clarity on how and to whom spills should be reported in transitional waters.

Identified gaps

- As noted above, a communication gap in terms of public awareness of information sharing agreements between governments.
- Timely notification for communities and health authorities.
- Vessel cargo information, particularly for emergency responders in coastal communities, appears not to be readily available through any database. For international vessels, Canada Customs has information. Copies of Material Safety Data Sheets (MSDS) and Safety Data Sheets (SDS) are intended to be on board vessels carrying dangerous goods. A mechanism for prompt communication of cargo information to persons potentially needing it (i.e. responders) needs to be investigated.
- A potential information gap included the need to map out both the provincial and federal government processes from initial incident all the way to recovery.

5.3.7 Geographic Response Plans

The goal of the ministry is to continue with a collaborative planning approach tailored to the risks and conditions specific to the marine environment of the province. This would include strengthening existing efforts to work through the Regional Response Plan (RRP) of the Government of Canada pilot, rather than creating provincial marine response plans.

Work within existing processes

- Participants highlighted the need to take a risk-based approach in developing GRPs and that WCMRC is already engaged in, doing so with support from industry.

- Participants emphasized the importance of regular training, exercising, and lessons learned in response planning. For example, each region would have a training and exercise requirement written into the GRP enabling communities to understand and know what to expect during an incident.
- The Province should find ways to work with federal agencies, private sector partners, port authorities, and other key partners to refine current process, rather than creating new ones, all while ensuring terrestrial and coastal GRPs are harmonized.
- However, some participants were concerned about opportunities for communities to provide commentary within the RRP process including funding options.
- One participant noted the importance of commercial involvement in this process to understand shipping trends.
- Participants also noted the importance of approval and auditing programs for GRPs, as well as insuring all response plans are made publicly available.

Identified gaps

- One participant urged the ministry to consider GRPs along the Skeena River, including working with Indigenous communities and coming up with data and inland GRPs. When GRPs reach shared areas, where there are federal GRPs and vice versa, the information should be shared.
- Participants noted a potential information gap in this area and suggested a table top exercise where all parties come together and play their respective roles.

5.3.8 Response Actions

The goal of the ministry is to ensure that response actions for the marine environment are comprehensive, integrated, and well understood by all relevant parties.

Clarity around roles and responsibilities

- Overall, participants suggested that there is a potential issue in terms of knowledge and awareness amongst the public around roles and responsibilities by relevant parties, ranging from the roles of various parties within Unified Command to jurisdictional boundaries and overlap.

- However, participants noted that there have been recent improvements in planning, training, exercises, and response, as well as in overall relationships. There are also many new initiatives underway under the Oceans Protection Plan (OPP), representing an opportunity for more provincial involvement.

Identified gaps

- Some participants felt that there should be training in oil spill response for those not directly employed by a government agency or response organization. Suggestions were heard regarding:
 - A mechanism for managing or training volunteer emergency response workers in both Indigenous and non-Indigenous communities should be considered as many small communities do not have paid emergency response workers. Procedures for onsite training or safe management of untrained volunteers who arrive at an event, need to be considered. Important considerations include³:
 - Training and equipment for occupational health and safety of volunteers.
 - Providing full time employment for responders in Indigenous communities with consistent training (i.e. developing a professional team of paid responders that are maintained in the community including appropriate equipment).
 - The opportunity presented by the Guardian Program, already in use.
 - The continuing work needed around training, designation, and liability as participants noted that, currently, responder immunity is only available under law if the responder is working for a certified Response Organization and that responders must meet all safety and Workers Compensation Board and Occupational Health and Safety requirements before they can be used in a response. However, this does not change the fact that in remote areas local residents are typically the first on scene and may be the ones most directly affected by an event.
- Participants expressed concern about where health fits into emergency response.

³ Neither the Canadian Coast Guard, nor WCMRC support the use of volunteers in marine spill response. In accordance with provisions outlined in various legislation and Canadian Coast Guard policies related to health and safety, the Canadian Coast Guard will not place volunteers in potentially dangerous situations, exposing them to hazardous materials, environments, and working conditions. Alternatively, volunteers will be redirected to a recognized volunteer or charitable organization that may be involved with the incident. Individuals who approach the Canadian Coast Guard to offer their services and time for payment may either be hired under contract, if required, or referred to any response contractors engaged in the response.

- For example, some participants felt there is a gap around sampling and monitoring information sharing, especially in terms of health effects (e.g. challenges in collecting and sharing raw data to monitor health effects).
- An information gap was also identified on how cargo is reported to Marine Communication and Traffic Services (MCTS) and shared with responders and when required, with communities. Further research is needed into the accessibility of vessel manifest information. The question remains, who is required to report what and who can access that information in a timely manner?

5.3.9 Recovery

In instances where provincial resources are impacted, the ministry is seeking to ensure that a spiller develops and implements a recovery plan as needed.

Seek alignment with other regulators

- Participants noted that the national ship-source oil spill regime of the federal government is comprised of three key areas: prevention, preparedness, and response, as well as liability and compensation. However, no pillar exists for recovery. Recovery needs to be improved at the federal level.
- Participants pointed to the importance of the recovery process, especially in cases where the polluter may not be just ‘big industry’, but someone without sufficient capacity to respond.
- More specifically, participants noted that the standards for cleanup and remediation are not clearly established among government agencies.
- However, participants did express concern around the Province issuing orders (e.g. for sampling, monitoring, or recovery plans), which could lead to confusion if multiple agencies are issuing orders to the spiller. The possibility was raised that the lead agency could issue any orders based on provincial requirements instead.
- In terms of liability and compensation, participants were concerned about who takes over costs once the limit of liability is reached using the Ship-source Oil Pollution Fund (SOPF). Although costs can be recovered, there was concern around how the reasonableness of those costs is determined. This was flagged as a key follow up action for the Province to liaise with the SOPF Administrator to clarify mandate and the claims assessment process.
- Participants also noted the need to include all parties in the ongoing recovery dialogue, as well as in the recovery process itself, including Indigenous communities and industry.

Identified gaps

- While the Minister overseeing Fisheries and Oceans Canada can take necessary measures to repair, remedy, minimize, or prevent pollution damage from a vessel or oil handling facility under Part 8 of the *Canada Shipping Act*⁴, some participants were not confident in this process to repair and restore damaged marine resources and to promote environmental recovery following a spill.
- Participants were also concerned about instances where the onus would be on the community to take on recovery. Under Canadian Coast Guard lead, the community may be involved in monitoring under the guidance of a response decision through Unified Command, a contractor, or agreed upon by the ship owner.

5.3.10 Liability and Compensation/Cost Recovery

In alignment with the polluter-pay principle, the ministry is exploring ways local and Indigenous communities can be reimbursed for their costs associated related to spill incidents, to support meaningful involvement in spill response and recovery.

Cost recovery through existing funds

- The SOPF was identified as an option for all parties to recover costs. However, participants perceived a number of challenges, including:
 - The SOPF claim process is cumbersome and time-consuming;
 - Requirements for claim submissions are not clear; and
 - Communities are not equipped to go through the application process and are left waiting for compensation and may never receive full costs back⁵.
- Adding an additional process for claim compensation review at the provincial level may duplicate or contradict the SOPF making the process more onerous.
- Participants noted that there could be consideration made to include a support mechanism for communities and impacted persons to apply for cost compensation through the SOPF. The

⁴ Further to this, the Minister, in respect of the polluter, can monitor those measures taken by the polluter to repair, remedy, minimize, or prevent pollution damage from a vessel or oil handling facility. If the Minister considers it necessary to do so, they can direct any person or vessel to take measures to repair, remedy, minimize, or prevent pollution damage from a vessel or oil handling facility.

⁵ Note: There was no SOPF representative on the marine technical working group and some participants noted that the perceived challenges may be out of date.

possibility was also raised that this could be a role for the Province; to provide assistance to affected individuals looking to navigate the SOPF process.

5.3.11 Loss of Public and Cultural Use

The ministry is seeking to ensure that measures are in place to address loss of public and cultural use when the marine environment is impacted, such as loss of public use of public beaches and other recreational areas.

Ensure loss of public and cultural use is addressed for both terrestrial and coastal communities in B.C.

- Participants cautioned duplicating aspects of existing federal processes, such as the SOPF or the Fund for Railway Accidents Involving Designated Goods.
- In terms of liability and compensation, participants expressed concern around the additional challenges an undefined amount of liability would pose to small businesses and an insurer.
- In terms of a ship-source spill, it was cautioned that it may not be possible to get insurance related to loss of public and cultural use, which may not be an insurable loss. Further, this approach might negatively impact the global insurance pool.
- Participants mentioned the importance of having a vessel or cargo insurance writer look at these provisions in detail.

5.3.12 Summary of Key Comments

1. Clarify roles and responsibilities
 - A detailed report stating how the legal framework of the province applies to spills in, or affecting, the marine environment, and how the ministry will participate in such incidents going forward, including a fact sheet clearly stating provincial roles and responsibilities in the marine environment in the areas of spill reporting, response actions, loss of public and cultural use, and recovery planning.
2. Ensure alignment with other regulators to ensure cooperation among agencies
 - Each agency must clearly understand its role and responsibilities to ensure that a spill response is effective, avoids duplication of effort, and promotes cooperation between agencies.

- Gain clarity around cost recovery and environmental recovery; notions which remain areas of confusion among spill response partners.
 - Liaise with the SOPF Administrator.
3. Provide guidance for potential marine spillers in B.C.
- Introduce a marine response fact sheet, providing guidance and principles for potential marine spillers. Work on this is underway.
4. Develop a standing committee
- The possibility of creating a standing joint committee to coordinate and review marine spill preparedness, response, and recovery policy among provincial and federal agencies, as well as other interested parties, possibly in conjunction with current initiatives such as the GVIPR and Regional Response Plan.
 - Planned policy table top exercises.
5. Further scoping and research
- Potential contract to finish the roles and responsibilities authority tables started by technical working groups participants.
 - Working with federal partners to ensure that the fate and behaviour of dilbit when spilled in water is fully understood.

6. ADDITIONAL COMMENTS

In addition to collecting feedback on the topics discussed above, participants expressed opinions on other issues related to Phase Two policy topics, but outside of current scope. Some examples of other issues raised were:

- Certain baseline data around the province is either out-of-date, insufficient, non-existent, or not accessible in ministry databases (e.g. Environment and Climate Change Canada and WCMRC data).
- Clarification is needed around how data is managed and housed, as well as around existing data sharing agreements. Certain cultural sensitivity data should not be available to the general

public to avoid damage to cultural resources. A method for managing this type of data is necessary.

- Concerns were raised around the review of the professional reliance model of the Province in the natural resource sector.
- A general comment received was concern around the timing of the consultation process. Many participants felt that the consultation was too rushed and generally inadequate for the complexity of topics and diversity of views of participants.

7. APPENDICES

APPENDIX 1 Response Times: Proposed Response Milestones

Planning and performance response milestone	Planning and performance response time (in time elapsed since the spiller learned of the spill)
1. Initial spill report, activation of notification procedures, Incident Command System, and Spill Contingency Plan	<u>Pipeline, railway and highway transporter operations:</u> <ul style="list-style-type: none"> • Immediately for all spills
2. Departure from base location of trained personnel with initial equipment to: (1) conduct a site assessment, spill monitoring and impact assessment; and (2) initial response actions	<u>Pipeline, railway and highway transporter operations:</u> <ul style="list-style-type: none"> • Within 1 hour for all spills
3. Trained personnel arrive at site with initial equipment to: (1) conduct a site assessment, monitor the spill, and conduct an impact assessment; and (2) complete initial response actions	<u>Pipeline and railway operations:</u> <ul style="list-style-type: none"> • 2 hours for populated areas • 4 hours everywhere else <u>Highway transporter operations:</u> <ul style="list-style-type: none"> • 2 hours for populated areas • 4 hours within 150 kilometers of populated areas • 8 hours everywhere else
4. If necessary, the first wave of additional response equipment and trained personnel arrival on site (i.e. capacity to address up to 25% of worst-case specified volume)	<u>Pipeline and railway operations:</u> <ul style="list-style-type: none"> • 3 hours within 150 kilometers of populated areas • 6 hours everywhere else <u>Highway transporter operations:</u> <ul style="list-style-type: none"> • 4 hours for populated areas

	<ul style="list-style-type: none"> • 6 hours within 150 kilometers of populated areas • 12 hours everywhere else
5. If necessary, the second wave of additional response equipment and trained personnel arrival on site (i.e. capacity to address up to 40% of worst-case specified volume).	<u>Pipeline, railway and highway transporter operations:</u> <ul style="list-style-type: none"> • Within 12 hours after the arrival of the first wave

APPENDIX 2 Response Times: Revised Definitions

Site Assessment

Revised Definition	After a confirmed spill has occurred and responder safety can be ensured, the first step of the response is to assess the impacts. The actions associated with this assessment should focus on documenting safety concerns, confirming the spilled product, estimating spill magnitude, identifying immediate receptors and resources at risk, and communicating relevant information to the appropriate persons. This initial site assessment will help to determine appropriate response actions and equipment that must be mobilized to the spill site. A site assessment can be completed by responsible persons or trained personnel (e.g. contractors).
Original Definition	After a spill has occurred, the first step of the response is to assess the site in order to gain an understanding of how the release occurred and the extent of the damage. This initial site assessment allows responders to determine the appropriate response actions and safety measures and is primarily for information gathering. This assessment is used to inform an incident briefing. The goals of this milestone are: public safety, spill mitigation, and communication of any changes at the site. The actions associated with this milestone are verification of the spill magnitude, complexity, and safety concerns.

Initial Response Actions

Revised Definition	An action conducted during the early stages of a spill response that is intended to address scene security, source control, and spilled product containment or recovery. Initial response actions can be completed by responsible persons or trained personnel (e.g. contractors).
Original Definition	Although it is recognized that field operations protocol may differ between transporters, this milestone is intended to address source control and any response actions that can be completed with one person. This equipment could be anything from clamps to patches and plugs as well as absorbents for smaller spills. The initial responder should be trained in understanding whether a contractor, shipper, or transporter should be called to assist in source control. If this is determined, the initial action should be to call for an estimated time of arrival. The amount of equipment needed to complete this milestone would vary depending on the spill source.

Trained Personnel

Revised Definition	Persons that have current and applicable training, or who possess adequate experience to safely and competently perform specific actions or responsibilities outlined in a Spill Contingency Plan. Trained personnel can be employees of the regulated person or other trained personnel (e.g.
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	contractors) but must be able to activate the Spill Contingency Plan of the regulated person. The <i>Guidance on the Management of Environmental Emergencies: Preparing Spill Contingency Plans</i> external guidance document provides further guidelines related to training requirements and documentation.
Original Definition	Persons that have completed the appropriate training or possess adequate experience to safely undertake the responsibilities or perform specific actions outlined in the Response Time Milestones. Trained personnel can be internal or external to the regulated person but must be able to activate the regulated person’s Spill Contingency Plan.

Onsite

Revised Definition	May refer to the point source of a spill, a muster point, or a site-safety assembly point that has been activated as a result of a spill, a staging area, the location where a large volume of spilled substance has accumulated or to a site where a spilled substance is moving and immediate spill response actions are needed to prevent the future spread of material to prevent impacts to human health, sensitive environmental resources, or cultural resources.
Original Definition	May refer to the point source of a spill, the muster point outside of exclusion zone/isolation zone/hot/exclusion zone, the location where a large volume of spill substance has accumulated or to a site where a spilled substance is moving and immediate spill response actions are needed to prevent the future spread of the spilled substance to prevent impacts to human health or sensitive resources.

APPENDIX 3 Geographic Response Plans: Key Infrastructure

Definition of ‘key infrastructure’

- Infrastructure is something that is built or made, whereas a sensitive area is naturally occurring.
- Municipalities are starting to associate natural assets into their infrastructure. Infrastructure is not just limited to ‘made things’.
- Infrastructure definition: *fundamental facilities and systems serving a country, city, or other area including the facilities necessary for its economy to function.*
- The definition of ‘critical infrastructure’ is close to ‘key infrastructure’ which is a federally defined term; Public Safety Canada (PSC) applies this definition:

Critical infrastructure refers to processes, systems, facilities, technologies, networks, assets, and services essential to the health, safety, security, or economic well-being of Canadians and the effective functioning of government. Critical infrastructure can be stand-alone or interconnected and interdependent within and across provinces, territories, and national borders. Disruptions of

critical infrastructure could result in catastrophic loss of life, adverse economic effects, and significant harm to public confidence⁶.

- We must clearly understand what the difference is between an infrastructure item and a sensitive area.
- Green infrastructure includes urban forests, wetlands, green roofs, etc.
- Natural capital includes not only green infrastructure but also the inherent use of natural areas by communities.
- Possibility for green infrastructure to be covered by GRPs as sensitive areas, it is important to understand what the purpose of the definition of infrastructure should be.
- What could be included In Section 91.31 (4) of EMA are locations of bodies of water, significant sites, biological and other resources, and human recreational activities.
- GRPs should protect areas of water use and anything that impacts a water user. What will cause a significant disruption and/or a notification because it will impact human health?
- Will be specific to every region and therefore every GRP would be different.
- Key infrastructure can also include economic resources. To be used in the first 24 hours and are for key locations. Should be narrowly focused and cannot include everything. Because they are priority areas of response, they must be critical. After they are all outlined, the advisory committee will rank them and decide which ones will have strategies.
- Last sentence of the PSC definition is important:

Disruptions of critical infrastructure could result in catastrophic loss of life, adverse economic effects, and significant harm to public confidence.

- For GRPs, the term also needs to be associated with water bodies.

APPENDIX 4 Geographic Response Plans: Weather Variations

The technical working group was asked to comment on seasonal variations and the consideration of weather events when creating GRPs:

⁶ <https://www.publicsafety.gc.ca/cnt/ntnl-scrtr/crtcl-nfrstrctr/index-en.aspx>

- When considering a GRP strategy for a potential spill to a waterbody, the strategy should plan for reasonable high river-flow volume. In other words, the tactics are based on regular river flow at freshet and can be scaled down for low-flow situations.
- There should be a qualifier about safety being the top priority.
- Should hazardous products be transported within areas where a safe response cannot be made?
- Access issues need to be incorporated into an understanding of seasonal variations.
- Comments were heard with respect to the term ‘reasonable’ in general, and how it pertains to emergency responders, as well as the degree of risk that would be considered reasonable.
- Planning for what is reasonable high river-flow volume should also include some unknowns such as freshet plus a storm event.
- Seasonal variations should include icing and strategies for icing conditions. GRPs should take into consideration procedures for unstable ice conditions and protocols for mitigating high-risk activities when responding to a spill. They should also take into consideration areas that will have limited access due to weather conditions.

APPENDIX 5 Technical Working Group Membership

Response Times

Attendees
BC Ministry of Environment & Climate Change Strategy
Canfor Pulp Ltd
BC Oil and Gas Commission
Georgia Strait Alliance
Nucor Environmental Solutions
Shell - PTS Emergency Management
SWAT Consulting Inc.
GHD
Canadian Association of Petroleum Producers
National Energy Board
Tseshaht First Nation
City of Vancouver
Railway Association of Canada/Canadian Pacific Railway
Canadian Coast Guard
Canadian Energy Pipeline Association/Pembina Pipelines

Canadian Fuels Association Member/Federated Cooperatives Limited
Indigenous Advisory and Monitoring Committee (IAMC-TMX)
Western Canada Marine Response Corporation
British Columbia Trucking Association
Kitsumkalum Indian Band
ArrowBlade Consulting Services
Oil Infrastructure Group
Transport Canada

Geographic Response Plans

Attendees
BC Ministry of Environment & Climate Change Strategy
Canadian Fuels Association/Husky Energy
Responsible Distribution Canada
Domtar Kamloops Mill
BC Council of Forest Industries
Canadian Energy Pipelines Association/Kinder Morgan Canada
Canadian Association of Petroleum Producers
Canadian Energy Pipeline Association/Pembina Pipelines
British Columbia Trucking Association
Railway Association of Canada/BNSF
Western Canada Marine Response
SWAT Consulting Inc.
Rapid Response Industrial Group Ltd.
Stantec
Stantec Consulting Ltd.
Kitsumkalum Indian Band
Simpcw First Nation
Heiltsuk Tribal Council
Indigenous Advisory and Monitoring Committee (IAMC-TMX)
Georgia Strait Alliance
Union of BC Municipalities
National Energy Board
Canadian Coast Guard
Fisheries and Oceans Canada
Transport Canada
Environment and Climate Change Canada

Addressing Loss of Public and Cultural Use

Attendees
BC Ministry of Environment & Climate Change Strategy
CN Rail/Rail Association of Canada
BC Tourism Industry Association
West Fraser
Canadian Fuels Association
Canadian Association of Petroleum Producers
Canadian Energy Pipeline Association/Pembina Pipelines
Interior Health Authority
Union of BC Municipalities
Metro Vancouver
BC Oil and Gas Commission
Insurance Corporation of British Columbia
Heiltsuk Tribal Council
First Nations Health Authority
Indigenous Advisory and Monitoring Committee (IAMC-TMX)
Society of Contaminated Sites Approved Professionals of BC
National Energy Board
Transport Canada
Natural Resources Canada
Fisheries and Oceans
Canada Coast Guard
Clear Seas

Maximizing the Marine Application of Ministry Environmental Emergency Regulatory Powers

Attendees
BC Ministry of Environment & Climate Change Strategy
Clear Seas
Georgia Strait Alliance
Living Oceans Society
Kitsumkalum First Nation
Indigenous Advisory and Monitoring Committee (IAMC-TMX)
City of Nanaimo
Metro Vancouver
First Nations Health Authority
Canadian Fuels Association: Suncor
Canadian Energy Pipeline Association/Pembina Pipelines
Trans Mountain
Canadian Association of Petroleum Producers

Railway Association of Canada
BC Council of Forest Industry
Catalyst Paper Corporation
BC Chamber of Shipping
Western Canada Marine Response Corporation
BC Oil and Gas Commission
BC Ministry of Energy, Mines and Petroleum Resources
Canadian Coast Guard
Transport Canada
Fisheries and Oceans Canada
Environment and Climate Change Canada

APPENDIX 6 Meeting Dates

Response Times

Date	Place	Topic
May 9, 2018	Vancouver, B.C.	<ul style="list-style-type: none"> • Milestone 1 and Milestone 2
May 25, 2018	Teleconference	<ul style="list-style-type: none"> • Definitions
June 8, 2018	Teleconference	<ul style="list-style-type: none"> • Review draft definitions & Milestones 3, 4, 5
June 22, 2018	Teleconference	<ul style="list-style-type: none"> • Indigenous Communities and response
July 11, 2018	Richmond, B.C.	<ul style="list-style-type: none"> • Planning standards vs performance standards • High volume transporters • Implementation and populated areas • Assigning response times to milestones
August 10, 2018	Teleconference	<ul style="list-style-type: none"> • Wrap up

Geographic Response Plans

Date	Place	Topic
May 10, 2018	Vancouver, B.C.	<ul style="list-style-type: none"> • Content • Implementation Plan
May 31, 2018	Teleconference	<ul style="list-style-type: none"> • Review of face-to-face summary notes
June 14, 2018		<ul style="list-style-type: none"> • Definition of key infrastructure • Inclusion of marine environment in inland provincial GRPs • Introduction to Advisory Committees
June 27, 2018	Teleconference	<ul style="list-style-type: none"> • Review and updating schedule • Testing schedule • Terminology (GRP, GRS, AoC) • Triggers for deployment

July 13, 2018	Richmond, B.C.	<ul style="list-style-type: none"> • Advisory Committees • Public Consultation
July 30, 2018	Teleconference	<ul style="list-style-type: none"> • Seasonal variations • Winter weather conditions • Testing schedule

Addressing Loss of Public and Cultural Use

Date	Place	Topic
May 11, 2018	Vancouver, B.C.	<ul style="list-style-type: none"> • Scoping, intro to community cost recovery
May 25, 2018	Teleconference	<ul style="list-style-type: none"> • Definition of loss of public and cultural use
June 6, 2018	Teleconference	<ul style="list-style-type: none"> • When should loss of public and cultural use address?
June 27, 2018	Teleconference	<ul style="list-style-type: none"> • Spill scenario: Cheakamus River
July 10, 2018	Richmond, B.C.	<ul style="list-style-type: none"> • Spill scenario reviews, cost recovery 'reasonableness'
July 25, 2018	Teleconference	<ul style="list-style-type: none"> • Wrap-up, other compensation avenues

Maximizing the Marine Application of Ministry Environmental Emergency Regulatory Powers

Date	Place	Topic
May 10, 2018	Vancouver, B.C.	<ul style="list-style-type: none"> • Scoping
May 23, 2018	Teleconference	<ul style="list-style-type: none"> • Work planning
June 6, 2018	Teleconference	<ul style="list-style-type: none"> • Spill reporting and notifications
June 14 & 15, 2018	Victoria, B.C.	<ul style="list-style-type: none"> • Federal presentations <ul style="list-style-type: none"> ○ Voyage of a vessel ○ Oceans Protection Plan • Federal facility tours <ul style="list-style-type: none"> ○ Institute of Ocean Science ○ Canadian Coast Guard Base
June 20, 2018	Teleconference	<ul style="list-style-type: none"> • Response actions
July 12, 2018	Richmond, B.C.	<ul style="list-style-type: none"> • Jurisdiction and resources • Recovery planning • Geographic Response Plans
July 25, 2018	Teleconference	<ul style="list-style-type: none"> • Recovery scenario
August 1, 2018	Teleconference	<ul style="list-style-type: none"> • Loss of public and cultural use • Liability and compensation