WESTAC
ROUNDTABLE

Summary Report

WEST COAST MARINE SPILL PREVENTION PREPAREDNESS AND RESPONSE

JUNE 14, 2016

This document is a summary of a Roundtable event held on April 8, 2016 in Vancouver. Participants and WESTAC members have received copies. It aims to capture points expressed by presenters and participants at the meeting. It is not meant to be a comprehensive report and is produced under Chatham House Rule.

The summary contains no conclusions, recommendations or advice, nor does it necessarily represent the position or views of WESTAC or its members.

We thank all participants and presenters for joining the discussion and hope this summary contributes to open dialogue between stakeholders.

For further information or comments, please contact:

Jennifer Perih
Manager, Communications and Member Engagement
WESTAC
jperih@westac.com

WESTAC thanks the following organizations for making this event possible: Cenovus Energy, Port of Prince Rupert, Port of Vancouver and Western Canada Marine Response Corporation.

WESTAC (Western Transportation Advisory Council) is an association of transportation leaders in business, labour and government from across Canada, with an interest in the long-term competitiveness of Western Canada's trade and transportation network. A neutral and trusted platform for over 40 years, the WESTAC forum hosts conversations on important issues in transportation and encourages collaboration on supply chain challenges.

Introduction

In April 2016, WESTAC hosted a Roundtable to discuss the West Coast marine spill prevention, preparedness and response regime (the regime). The Roundtable's primary objective was to educate interested stakeholders on the status of the current regime and explore areas for improvement. The intent was to improve future conversations between stakeholders and decision-makers by providing a common understanding of the issues. A secondary intent of the Roundtable was to try and elicit the many different stakeholder perspectives on the issue to shape a world-leading marine safety regime for the West Coast that could be broadly supported. This paper summarizes the information presented as well as the discussions that took place.

SHIFTING ENVIRONMENT

The past several decades have seen significant improvements to the marine safety regime worldwide. Much of this improvement has come from new preventative measures such as mandatory pilotage in designated areas, compulsory double-hulled tankers and a wide range of regulatory tools implemented by domestic and international agencies. While the regime is continuously improving, there are increasing pressures from communities and stakeholders regarding local impacts of marine traffic.

Oil Spills & Seaborne Volumes

"Are you looking at cumulative impacts of marine traffic?"

SHIFTING ENVIRONMENT (cont)

The traditional framework of "consult and inform" is being challenged by groups who consider themselves stakeholders. These include municipal or community-based organizations, as well as First Nations, who want involvement in the decision-making bodies and processes that constitute the regime. Broadening the collaborative aspects of the regime will require a new and improved focus on coordination, engagement and communication and could alter the framework within which the regime is conceived and practiced.

Secondly, the election of a new government in Ottawa has created some uncertainty going forward. The government has made two new commitments to improve marine safety and to develop an approach to implement a moratorium on crude oil tankers in Northern BC waters. The government has committed to engaging stakeholders, the public and Indigenous communities and work is underway in that regard. Currently, the terms or modalities concerning permissible vessels and products or the limits of the geographic area in which they will operate have not been defined. Participants at the Roundtable noted that timely clarification is needed.

> ***"The general public is looking for a tightly regulated regime and full compliance with whatever regulations are put in place."***

Finally, West Coast tanker movements are expected to grow significantly, pending construction of one or more LNG plants and new or expanded pipeline facilities. The Northern Gateway project will add approximately 220 tanker calls annually, while the Trans Mountain pipeline expansion project will add approximately 350 tanker calls annually. In the run-up to this change, the regime needs to prepare for the shifting demands related to this traffic, such as response capacity and regulatory coordination. This change also requires more robust communication with the public, as the public looks for rigorous regulation of and compliance by the commercial marine sector.

It became clear during the Roundtable, coordination and communication remain some of the largest challenges facing the regime.

THE MARINE SAFETY REGIME - STAKEHOLDER ROLES

1. Domestic Regulatory Agencies

The following table identifies the multiple agencies with a role in the regulation of the marine industry and shipping sector in Canada. It offers a quick glimpse into the basic responsibilities of each agency and highlights some ongoing considerations for improvement and communication as identified throughout the Roundtable.

Government Agency	Responsibilities	Ongoing Considerations
Transport Canada (TC)	▪ Lead regulatory agency; establishes legislative framework and policies for the shipping sector ▪ Conducts regime review ▪ Certifies Response Organizations (ROs) ▪ Example of current project: Area Response Planning pilot project with West Coast Marine Response Corporation taking a lead role	Uncertainty about new policy/ programs, e.g. moratorium; balancing environmental and economic interests; inter-agency coordination and jurisdictions; adequacy of communication about initiatives to improve regime.
Canadian Coast Guard (CCG)	▪ Delivers Environmental Response Program for TC and lead agency to ensure appropriate response ▪ Responds to minor spills ▪ Will lead response if no responsible party identified ▪ Leads cross-border exercises and international mutual aid agreements	Chronic underfunding; lack of coordination with other responders; outdated equipment and response plans; uncertainty among partners about roles within Unified Command System (UCS) and Incident Command System (ICS); shared understanding about "reasonable" response; better communication with public.
Environment Canada/ Department of Fisheries and Oceans	▪ Assists with mapping and shoreline assessments ▪ Assists in identifying priorities ▪ Research	Need to fill knowledge gaps that threaten the effectiveness of response and restoration, such as research into non-conventional petroleum products, marine impacts of oil.
BC Ministry of Environment	▪ Involved in all incidents affecting foreshore, terrestrial spills	Current regime inadequate to meet forecasted growth in commodity shipments. Reworking spill response regime.

1. Domestic Regulatory Agencies (cont)

RESPONSE TO CHALLENGES

Discussions and presentations at the Roundtable identified some deficiencies like those manifested in recent incidents (see *Canadian Coast Guard Develops New Response Model,* pg 6) that require attention. Also critical is the need to devise and implement new or improved measures in response to both ongoing and new challenges facing the marine safety regime; some suggested priorities were:

- define the terms of a North Coast tanker moratorium and other announced federal priorities
- coordinate stakeholder roles in spill response
- resolve jurisdictional overlaps
- continue review/launch of measures through the federal multi-departmental, Director General-level committee
- reverse chronic underfunding of CCG (as recommended in the *Canada Transportation Act Review Report* and by the Tanker Safety Expert Panel)
- improve communication about regime improvements and between stakeholder groups
- review the inclusion and nature of participation of non-governmental stakeholders in the regime

BC'S SPILL RESPONSE REGIME INITIATIVE

The BC Government has proposed amendments to the *Environmental Management Act* and proposed new regulations for spill preparedness and response. Most of the work is land-based but there are some overlays into the marine environment. For example, if a substance spills on land and moves into the marine environment or if a marine spill moves onto land it will trigger the BC Response Regime. This is a continuation of work in Cabinet and the five conditions for heavy oil pipeline development outlined in 2012.

A review of the current marine spill response regime review was triggered by forecasted growth in short-and-medium-term commodity shipments. The initiative began with the publication of the three-volume Nuka reports, completed in 2013 (updated 2015). Based on these findings, the Government of BC began formulating a new spill response regime. The objectives were to create an industry-funded, provincially certified Preparedness and Response Organization and devise new funding mechanisms. The new regime will not duplicate existing regulatory powers, manufacture unnecessary rules or add unnecessary costs. The design of the regime is based on principles such as 'polluter pays', 'risk-based' and heavy industry participation with strong government oversight.

Legislation concerning new requirements for preparedness, response and recovery (Bill 21) was introduced in February 2015. The Ministry of Environment is currently engaged in consultation with technical experts, the public and First Nations stakeholders. The Government anticipates completion of the regulations and launch of the final regime in spring 2017.

Reference Links:
West Coast Spill Response Study (Nuka Report), Volume I: *http://bit.ly/1hDibmR*
West Coast Spill Response Study, Volume 2: *http://bit.ly/1MKGinA*
West Coast Spill Response Study, Volume 3: *http://bit.ly/1e9uVzf*
Update to West Coast Spill Response Study (Volume 3): *http://bit.ly/1qF8JJh*

2. Responding Organization

The West Coast Marine Response Corporation (WCMRC) is the only Transport Canada-certified Response Organization on the West Coast. They are charged with response planning and with maintaining the personnel and equipment required to meet Transport Canada's designated response times and capabilities. They are largely funded by industry members (vessels as defined under the *Canada Shipping Act* 2001), subscribers (those not required to subscribe under the Act, e.g. port authorities or seaplane companies), and through third-party agreements arranged at the time of a spill.

WCMRC is undertaking some changes to their operations, arising from regularly mandated updates of their response protocols as well as to shifts in the operating environment. For example, they are moving from using a network of sub-contractors towards more permanent staff. They are acquiring new equipment, such as skimmers, and setting up new depots and docking facilities, such as one at the base of Commissioner Street in Vancouver. WCMRC is also making plans for additional response capacity to address the potential expansion of the Trans Mountain pipeline and any associated risks.

"The current western industry spill response framework is already significantly ahead of other Canadian and international jurisdictions – and the industry is strongly committed to continuous improvement and open to feedback, which should be recognized as important steps in building a strong safety regime."

3. Other Stakeholders

The current regime does not optimize, or in some cases involve the participation of a number of groups or organizations with a legitimate stake in a range of areas that includes preparation, response, restoration and liability. This was reflected during the Roundtable through queries and comments related to who and what defines marine safety and restoration, what should be the involvement of First Nations and local municipalities in planning and response, and other related issues. See *Survey of Attitudes Towards Shipping* (Clear Seas Centre for Responsible Shipping): *http://bit.ly/1qF9kL8*

About one hundred First Nations communities have vital economic, cultural and spiritual stakes — both traditional and statutory — in the protection of BC's marine coastal waters and foreshore. They have demonstrated their operational effectiveness in the response to incidents, as shown in the critical roles various First Nations communities played in the tragedies of the *M/V Queen of the North* and the *M/V Leviathan*. And yet to date, their role within the marine safety regime has been primarily consultative, a role that does not adequately reflect or integrate their interests with respect to the protection and recovery of the marine environment.

"First Nations and communities tend to look at marine safety as a holistic approach to the marine environment — it is much more than just incident response. It would be helpful to broaden the conversation to include safety and certainty for other marine industries...as well as environmental, socio-economic stewardship and community engagement."

3. Other Stakeholders (cont)

Local community members and municipalities are also looking for greater integration of their values within the safety framework, regarding how protection and recovery are defined as well as in the operational and consultative roles they play. Their roles have long been on the sidelines, even as their interests are affected or are at stake. Regulatory and other stakeholders like the Responding Organization are beginning to improve consultation with these groups, but much work and a re-envisioning of the marine safety framework to one that includes all stakeholders will be required to create a more fully integrated system.

CANADIAN COAST GUARD DEVELOPS NEW RESPONSE MODEL

The *M/V Marathassa* incident, involving the discharge of an unknown quantity of intermediate fuel oil in the Port of Vancouver, revealed a number of deficiencies in existing response protocols, many of which were related to coordination among interested parties and communication with the full range of stakeholders in the event of a maritime emergency. Drawing on the recommendations provided in an independent review (the "Butler Report") that analyzed the response, CCG has worked with multiple stakeholders to develop the Greater Vancouver Integrated Response Plan. This Plan is designed to improve alerting processes, assessment, communication and coordination between multiple stakeholders. Following tests in the spring of 2016, the Plan will be finalized and the model adopted for use in other major Canadian ports. It will be updated continuously through annual exercises, to ensure that it remains current and "evergreen."

Independent Review of the M/V Marathassa Fuel Oil Spill Environmental Response Operation: *http://bit.ly/1VRMmMk*

"The biggest issue regarding public trust has been the lack of leadership on the part of the federal government... Where's the commitment to dedicate resources to the Coast Guard, so it has the personnel and equipment to deal with [response]?"

PROCESS

1. Prevention Measures

"We are facing a demographic crisis in the general population regarding the availability of skilled mariners who are essential to a safety regime. This must be taken into consideration in any informed conversation on spill response. However, there is also an opportunity to find the capacity from within the First Nations communities."

Preventative	Agency	Responsibility	Ongoing Considerations
Pilots	Pacific Pilotage Authority & BC Coast Pilots	Provide pilotage to all vessels over 350 GT operating within Compulsory Pilotage Areas (defined by Transport Canada). Provide consultation on proposed projects.	Spending significant time working with energy project proponents, hiring new pilots and investing significantly in their training, yet don't have a single new confirmed project. Have taken a huge risk in developing senior pilots capable of handling larger ships.
Port State Control	Transport Canada	As a Port State, Canada conducts foreign ship inspections under international Memorandums of Understanding for Port State Control (PSC). Canada is signatory to Paris and Tokyo MoU. PSC inspections are done against International Maritime Organization requirements and will identify if there is a deficiency needing to be fixed or if serious, detain the vessel until all deficiencies are rectified. Member countries have agreed to collaborate and share vessel information and conduct inspections based on risk within a geographical region, so as to target and eliminate substandard vessels.	Given the competitiveness of shipping and 'just in time' modality, what is legitimate in terms of a cause to detain?
Navigational Aids	Canadian Coast Guard & Port Authorities	Install and maintain navigational aids.	Requires ongoing funding.

1. Prevention Measures (cont)

In addition to the measures above Port Authorities along the Coast have developed processes and made investments to prevent accidents:

Port of Prince Rupert: New radar system installed that will provide shore based radar coverage extending to the northeast of Haida Gwaii as far north as the Alaskan border covering port and approaches as part of Motor Vessel Traffic System. Fused with Automatic Identification System (AIS) data, the radar will enhance the ability to prevent and respond to accidents, as well as detect oil spills. Port also purchased additional harbour vessels, implemented new e-navigation measures including tide and water monitoring, new navigational aids (with CCG), and working on providing more education for transiting vessels.

Nanaimo Port Authority: Uses Marine Domain Awareness (MDA), a vessel monitoring system incorporating a broad range of radar, AIS, thermal cameras and other data sets to optimize awareness of common operating picture. Also using Area of Interest, in addition to Area of Responsibility.

Port of Vancouver: Sets out regulations in Port Information Guide. Special local areas designated Marine Restricted Areas, e.g. below 2nd Narrows bridge. Harbour vessels provide 'eyes and ears on the water', as well as multi-layered MDA system collating data. Have set up Marine Emergency Response Coordination Committee.

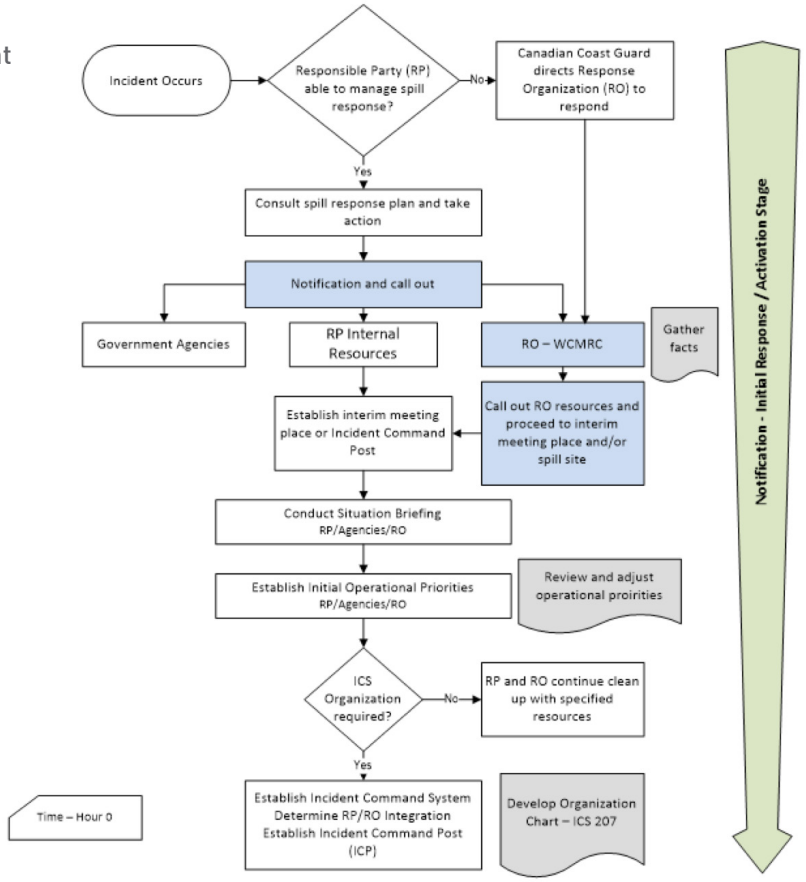
2. Response

The response to a spill is currently based on the widely used Incident Command System (ICS) model, an international, standardized and scalable approach to the command, control, and coordination of emergency response. It draws on the Unified Command System hierarchy, within which responders from multiple agencies collaborate for an effective response. The collaboration occurs between the responsible party, the Response Organization, regulatory agencies at federal, provincial and municipal levels and First Nations.

> ***"Every inch of the west coast is under aboriginal title... First Nations still live in and protect much of the coastline...but because many are not party to any treaties, they are not at the table. It's a shame as they are stewards of the coast. "***

During the discussion period at the session, two distinct models for response management were considered. One model involves the creation of a single Maritime Safety Agency with clear lines of command and more efficient management of stakeholder issues. Another model is based on a collaborative response regime jointly administered by federal and provincial governments. This regime is modelled in many places, but the Australian and Norwegian examples were mentioned.

WCMRC Incident Roles



Flowchart provided by WCMRC

INCIDENT RESPONSE

(see flowchart above). Transport Canada supports the recommendations in the Tanker Safety Expert Panel reports, including the localization of response according to geographical areas. This involves leveraging local knowledge and resources to mitigate area-specific risks and prepare specialized responses.

Response times are regulated by Transport Canada, although the industry has called for reduced response times in certain areas. Currently, the Port of Vancouver is the only designated port with a 6-hour window for response (average actual response time by WCMRC is one hour). Response to spills within the South Coast must occur within either an 18- or 72-hour window. WCMRC has negotiated a proposed geographic area of response for the Port of Vancouver and lower South Coast with Trans Mountain. The agreement provides for a 2-hour window of response within the Port of Vancouver and a 6-hour window for the tanker route.

WCMRC tried to benchmark response according to world-leading standards but determined that "Best Practices" within a specific jurisdiction were more effective. This was corroborated in the Nuka Report commissioned by the BC Ministry of Environment. This approach is the basis for WCMRC's Coastal Protection Program, which involves the creation of a Geographic Response Mapping Tool. This mapping system collates confirmed local data about environmentally and culturally sensitive sites. WCMRC will eventually create a public portal for the tool.

Tanker Safety Expert Panel, Phase I report: http://bit.ly/1VEp4LQ
Tanker Safety Expert Panel, Phase II report: http://bit.ly/1WfFwRh

2. Response (cont)

Best practices for spill response are in line with guidelines for offshore installations published by IPEICA (the global oil and gas industry association for environmental and social issues) and the International Maritime Organization (IMO). IPEICA Oil Spill Project: http://www.oilspillresponseproject.org/.

3. Testing and Validation

Validation of planning and response strategies is critical in assessing the viability of response plans. Excellent validation guidelines (Readiness Evaluation Tools for Oil Spills/RETOS) were created by ARPEL, the Regional Association of Oil, Gas and Biofuels Sector in Latin America and the Caribbean. It is critical that the results of validation exercises are communicated to the public, to promote awareness and understanding of the regime. ARPEL: https://www.arpel.org/

Testing of equipment and capacity is also important to ensuring the greatest possible mitigation of risks in both response and restoration. Modelling and field-tests using data for actual geographical and weather-related conditions, actual material samples and concentrations, varying spill volumes and other variables are the best way to validate capacity and capability under real-world conditions. Testing skimmer equipment using an actual contaminant material (not just plain water) is the only valid way to assess the effectiveness of the equipment and set up procedures to mitigate risk. This approach has been successfully adopted in Norway.

4. Restoration

WCMRC is continually reviewing its response protocols, timing, equipment and personnel. It has devised the Coastal Protection Program in consultation with First Nations and local communities to identify the location of critical environmental and cultural assets. It's also looking at adding programs like raptor hazing and K9 Shoreline Clean-up and Assessment Technique (SCAT) teams to enhance restoration methods and outcomes.

Consideration should also be given to a newer approach to strategic response and restoration planning based upon a Net Environmental Benefit Analysis (NEBA). Where, traditionally, response and restoration strategies have been chosen based on efficiency or costs, NEBA is an analysis of different response and restoration options designed to identify those with the least environmental and socio-economic impacts.

"How are the consequences [of spills] on communities going to be integrated into risk assessments?"

CONCLUSION

While much progress has been made in spill prevention, response and restoration, it is equally clear that more remains to be done, particularly in the areas of coordination and communication, both within the regime and outside its traditional boundaries. Progress will depend on greater sharing, communication and collaboration among stakeholders, such as could be provided by a committee of active stakeholders representing key issues, including all levels of government, First Nations, industry experts and community members. Regardless of how the collaboration and cooperation occur, both will be fundamental to the creation of a world-leading regime to protect the waters and shores of Canada's West Coast.

REQUEST FOR INPUT

Transport Canada is preparing to enter a pre-consultation phase about the imposition of a formal North Coast tanker moratorium, as outlined in the Prime Minister's Mandate Letter given to the new Minister of Transport.

The BC Ministry of Environment held seven First Nations workshops during May 2016. They are also holding meetings of a technical working group from May through July 2016. For information about the new regime and how to submit your comments [*http://bit.ly/244Fq1o*].

FORWARD THINKING. TRANSPORTATION.

401 - 889 West Pender St.
Vancouver, BC V6C 3B2
Tel 604.687.8691
westac.com