



**T'SOU-KE
NATION**

**Marine Safety and Risk Reduction
Summit **Discussion Guide****

MARCH 25 – 26, 2015 | SOOKE, BC



TABLE OF CONTENTS

INTRODUCTION	5
MARINE SAFETY: The Voyage of a Vessel	6
Prevention	6
Preparedness and Response	7
Liability and Compensation	8
A Closer Look at the Role of the Pacific Pilotage Authority: Keeping the Waters Clear	8
Points for Further Discussion	9
HABITAT RESTORATION AND PROTECTION	10
Habitat Protection	10
Emergency Preparation, Reporting and Response	11
Rehabilitation and Cost Recovery	13
A Look at What Other Stakeholders are Doing: The Vancouver Aquarium	14
Points for Further Discussion	15
WEST COAST ENERGY INFRASTRUCTURE AND JOB READINESS	16
Economic and Policy Context	16
Employment Resources	17
Coast Salish Employment & Training Society	17
North Vancouver Island Aboriginal Training Society	17
Nuu-chah-nulth Employment & Training Program	18
The Industry Training Authority Apprenticeship Advisors	18
Points for Further Discussion	19
APPENDIX	20



ACKNOWLEDGEMENTS

The Marine Safety and Risk Reduction Summit is hosted by the T'Sou-ke Nation, with funding support from Major Projects Management Office – West (MPMO- West) and Transport Canada.

The contents of this discussion guide reflect public materials produced by the Ministry of Environment, The Canadian Coast Guard, Transport Canada, the Department of Fisheries and Oceans, the Industry Training Authority, Pacific Pilotage Authority, the North Vancouver Island Aboriginal Training Society, the Vancouver Aquarium, the Western Canada Marine Response Corporation, and the Nuu-chah-nulth Employment & Training Program.

This guide was written and designed by CopperMoon Communications, with specific thanks and acknowledgment to its primary authors, Sarah Natrass and Jackie Pichette, and its designer, Freyja Barnwell.

The information provided here is to stimulate discussion and learning.



INTRODUCTION

The level and pace of resource development happening along BC's coast is increasing. There are a number of energy projects proposed and advancing along the West Coast, including two proposed Liquefied Natural Gas (LNG) projects on Vancouver Island. Recognizing this changing reality, the T'Sou-ke Nation sought to bring Vancouver Island First Nations representatives together at the **Marine Safety and Risk Reduction Summit** to consider opportunities and risks.

The summit is a forum to share ideas about:

- marine safety,
- habitat protection/restoration, and
- employment and training opportunities for West Coast First Nations.

It features workshops led by representatives from both the federal and provincial governments, as well as by relevant non-government agencies and training bodies. Western Canada Marine Response Corporation will also be giving a spill response presentation and participants will each receive an oil spill clean up kit.

The hope is that this event will lead to a greater understanding of hopes and concerns related to West Coast energy development among Island communities, while at the same time developing and sharing knowledge around marine traffic safety.

The purpose of the guide:

This discussion guide is offered as a resource to inform conversations at the Summit. It outlines:

- Canada's marine safety system,
- some key components of habitat restoration/protection, and
- employment services available to Vancouver Island First Nations community members as they seek to participate in a growing regional economy.

This guide is not an exhaustive source of information; additional resources are suggested throughout. Event workshops will provide opportunities for dialogue to help answer many of the questions posed throughout this guide.





MARINE SAFETY: The voyage of a vessel

Transport Canada and its partners help to protect Canada's waters from ship-source pollution, and ensure that marine transportation is safe and efficient.

Canada's marine safety system is built on three pillars:

- preventing incidents from happening;
- cleaning up spills quickly if they do occur; and
- making sure polluters pay.

In addition, ships must follow strict measures to protect the oceans during their regular operational voyages in Canada's waters.



PREVENTION

A wide range of measures are in place to ensure the safety of marine transportation in Canada. On every voyage to, from, or within Canada, a vessel — whether a container ship, bulk carrier, or LNG carrier — is subject to numerous safety requirements and regulations. Canada is a party to several conventions negotiated under the International Maritime Organization. Three of the most important conventions are: 1) **SOLAS**, which specifies minimum standards for construction, equipment and operation of ships; 2) **MARPOL**, which standardizes pollution equipment and limits on discharges; and 3) **STCW**, which establishes basic requirements for vessel crew training and certification.

Canada implements these world-wide safety standards under regulations governing the design, construction, and operation of vessels that are built in Canada or that operate in Canadian waters.

A variety of requirements ensure the safe operation of vessels while at sea. The use of technology in marine activities has proved vital in helping to reduce human error and the occurrence of incidents and spills world-wide. For example, the Canadian Coast Guard provides a wide range of devices or systems, external to a vessel, to help mariners determine position and course. These systems help to warn of dangers and obstructions, and can mark the location of preferred routes.

When a vessel enters Canadian waters, a variety of measures take effect to ensure the safe passage of vessels in our coastal areas. These include:

- Having experienced marine pilots board ships to help ensure safe navigation to Canadian ports.
- Monitoring and tracking ships while they cross Canadian waters (National Aerial Surveillance Program) -- aircrafts patrol the waters, monitor vessels and watch for potential unlawful discharges.
- Detailed inspections by Transport Canada on arrival at a Canadian port -- these inspections ensure ships meet rigorous domestic and international standards. Canada, along with many other nations, is a participant in the Port State Control program, which allows inspectors to board and inspect foreign vessels entering Canadian ports to ensure they comply with major international maritime conventions. Vessels that do not meet safety standards are detained until their deficiencies are corrected. These marine inspections help to ensure that ships meet the highest safety standards to operate in Canadian waters.
- A “Ships of Particular Interest” program (administered by Transport Canada) -- the program targets certain foreign ships that have been banned from entering other foreign partners’ ports. It allows Transport Canada to target its inspections to vessels that are unlikely to meet safety standards and regulatory requirements. The program discourages substandard ships from entering Canadian waters.

PREPAREDNESS AND RESPONSE

The Government of Canada is well prepared and ready to respond to marine accidents from ships in Canadian waters. Ship-source oil spill prevention, preparedness, response and recovery are undertaken in a collaborative “whole-of-government” approach. Key federal departments work with private industry, as well as provincial and municipal governments, to ensure an incident is responded to in a coordinated manner.

While the current system has met existing needs, the dynamics of oil and LNG transportation are changing. In 2013, the Government of Canada created a Tanker Safety



Expert Panel to review Canada's current system and make recommendations to strengthen it. The Panel's first report, released in 2013, addressed marine oil spills. The second report will address spills of hazardous and noxious substances (which includes LNG) and is set to be released in 2015.

LIABILITY AND COMPENSATION

Canada bases its liability and compensation regime for oil spills on the "polluter pays" principle. This means the polluter is always responsible for paying for the costs of an oil spill. If a ship causes a spill, Canadian law makes its owner liable for losses and damages.

For more information on the Government of Canada's world-class marine safety system, see the table titled "Pillars of Canada's Marine Safety System" in the appendix and visit:

<http://actionplan.gc.ca/en/backgrounder/r2d-dr2/enhancing-marine-safety#Amendments>.

A CLOSER LOOK AT THE ROLE OF THE PACIFIC PILOTAGE AUTHORITY: Keeping The Waters Clear



The dramatic consequences of a marine accident are well known. The catastrophic oil spill caused by the grounding of the *Exxon Valdez* tanker in Alaska over 20 years ago still brings back a searing image of destroyed shorelines and dying animals. In this tragic case, one significant contributing factor was that the *Exxon Valdez* was exempt from rules requiring ships in the area to have a professional marine pilot on board. She was, in effect, sailing without a guide who had expert knowledge of the local waters, one who could have brought her safely to her destination.

Fortunately, in BC, the Pacific Pilotage Authority (PPA) protects citizens and the environment from such incidents.

What is the Pacific Pilotage Authority (PPA)?

The PPA is a federal crown corporation that enforces rules and procedures to protect citizens and the environment from incidents and disasters. The PPA's mission is to provide safe, efficient pilotage by working in partnership with pilots and the shipping industry.

Protecting Citizens and the Environment

BC's marine pilots are highly skilled mariners with vast experience and knowledge who safely guide foreign deep-sea vessels in and out of BC's 60 ports.

When pilotage services are required, pilots are dispatched to meet vessels as they enter “designated compulsory pilotage areas.” Pilots board the vessel using a ladder, and once aboard, guide the vessel until it has safely moved through the area (pilotage district) or arrived at the dock. During their assignment, pilots provide the bridge team with directions as to the safest course and speed to avoid hazards.

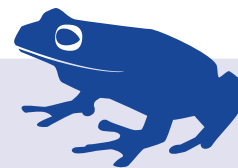
The PPA ensures that the pilots are available whenever needed. The shipping lines using the service are the ones who pay; there is no cost to the public.

About the Pilots

- Pilots are free to exercise their professional judgment, independent from commercial pressure. It is in the public interest for pilots to ensure safety remains the priority.
- Pilot candidates start with an average of 20 years of maritime experience.
- Pilots often come from the tugboat industry, the Canadian Coast Guard, BC Ferries, or the deep sea and fishing industry.
- Apprentice pilots gain expert knowledge of local conditions by studying every aspect of the BC coastline.

For more information, please visit www.ppa.gc.ca

Points for further discussion:



- What role do Vancouver Island First Nations currently play in marine safety?
- What role do Vancouver Island First Nations want to play in marine safety in the future?
- How will the introduction of LNG transportation to the West Coast affect Canada’s marine safety system?
- In the event of an LNG incident, how would polluters be held accountable?



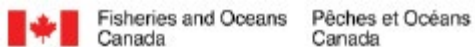
HABITAT RESTORATION AND PROTECTION

Strong environmental protection measures are key to sustainable economic development. Recognizing this, the BC Ministry of Environment’s Environmental Emergency Program develops and implements tools to prevent, prepare for, and respond to spills that could harm or disturb the natural environment.

BC’s policies also outline processes for reporting spills and recovering costs associated with responding to emergencies.

At the federal level, Fisheries and Oceans Canada (DFO) is responsible for management and protection of marine resources on the Canadian West Coast. The Canadian Coast Guard, a Special Operating Agency within DFO, also plays a key role in protecting the marine environment.

HABITAT PROTECTION



The Department of Fisheries and Oceans (DFO) sets frameworks, regulations and policies for the management of Canada’s coastline. DFO

designates specific areas of the ocean as Marine Protected Areas to protect ecologically and biologically important resources, and works with partners to monitor the status of aquatic species at risk to prevent further declines.

DFO also undertakes research, participates in environmental assessments, and conducts regulatory reviews for large resource projects to protect marine resources from serious harm.



EMERGENCY PREPARATION, REPORTING AND RESPONSE



As the movement of oil and other hazardous materials throughout BC increases, there is an even greater need to ensure that necessary safeguards for the environment are in place. Strong spill response and environmental protection measures are important for sustainable economic development as well as job creation. In BC, preparation and response to environmental emergencies is a shared responsibility across local, provincial and federal governments as well as industry.

Environmental Emergency Program (EEP)

At the provincial level, the EEP, overseen by BC's Ministry of Environment, guides prevention, preparation and response efforts in the event of an environmental emergency. The program:

- covers **947,800 km²** of inland areas and coastal shoreline; and
- employs **16** full-time staff members who administer the program, including **10** Response Officers in **7** communities, a management team, and technical specialists.

The EEP requires that the Ministry of Environment implement the *BC Environmental Management Act*, which was established in 2004. The *Act* sets out requirements for disposal of hazardous materials, as well as for spill prevention and reporting.

The EEP also outlines the following **responsibilities** for the provincial government through the Ministry of Environment:

- Develop Comprehensive Emergency Management Plans that define the scope and structure of the provincial government's involvement when responding to emergencies.
- Prepare technical documents to guide spill-response efforts in specific situations.
- Develop Incident Command System operational guidelines to assist environmental emergency response officers and incident management team members in the field.
 - › An Incident Command System organizes the functions, tasks and staff within the overall emergency response. It promotes communications and coordination.
- Train and support staff to ensure response practices are technically sound.
- Conduct or participate in exercises to test response plans and the ability to work with other agencies during an emergency situation.

- Participate in inter-governmental and cross-jurisdictional response planning and liaison.
- Develop policies, procedures and legislation to guide emergence response.

Reporting an Emergency and Role of the Responsible Party

Any spill that threatens the quality of water, land or air must be reported. The provincial 24-hour reporting line is managed through Emergency Management BC's coordination centre by a duty officer. If a spill occurs in BC, the Responsible Party (i.e., person or company in charge of the released pollutant) is expected to report the spill. The province's *Spill Reporting Regulation* outlines how and when a spill should be reported. The Responsible Party may have a contractor that can be called in to respond to the spill, or they will have an incident management team set up in case a spill occurs.

The Federal Government's Role in Emergency Response

The federal government also has a responsibility to assess risk and be prepared to respond. For instance, there are features of Canada's Marine Safety System that relate specifically to habitat protection and restoration. These have to do with prioritizing certain geographic areas for protection from oil spills. Environment Canada provides environmental advice, information and assistance to the Coast Guard, Responsible Party and/or Unified Command during emergency response situations.

Transport Canada certifies designated private-sector response organizations. For more information about the standards developed to guide response organizations in developing their response plans, view Transport Canada's "Response Organizations Standards" here: <http://www.tc.gc.ca/media/documents/marinesafety/tp12401e.pdf>

Western Canada Marine Response Corporation: A Transport Canada Certified Response Organization



The Western Canada Marine Response Corporation (WCMRC) has a mandate to ensure there is a state of preparedness in place and to mitigate the impact when a spill occurs. This includes the protection of wildlife, economic and environmental sensitivities, and the safety of both the responders and the public.

In the event of a marine oil spill, WCMRC may be asked to integrate their team into the response management in a number of ways, including:

- Training and guiding personnel for the Responsible Party in selected roles and filling the other Incident Command System organizational requirements as needed

- Supporting the Responsible Party or government-led agency in selected incident management roles and in the on-water recovery

The Role of First Nations, Local governments and Stewardship Groups

Finally, local governments, First Nations and stewardship groups are playing an increasingly significant role in spill preparedness and response – from acting as first responders to providing valuable information about ecological sensitivities. These groups face direct risks and costs in the event of a spill – which is why events such as this summit are so important, as they support opportunities for engagement in risk assessment, planning and preparation, and communication.

REHABILITATION AND COST RECOVERY

After reporting and responding to a spill, the Responsible Party is expected to take reasonable steps to contain a spill and restore the environment to its original condition.

The *Environmental Management Act* is administered by the BC Ministry of Environment and outlines the process for provincial government cost recovery of an emergency through the *Spill Cost Recovery Regulation*. It outlines costs that can be recovered by government and specifies a minimum reasonable cost for a field response.

Marine Animals

To ensure the protection and rehabilitation of marine animals, the BC Ministry of Environment is committed to providing logistical support during a spill event; acquiring, maintaining and storing bird-recovery equipment and supplies; and facilitating a training program in bird clean-up techniques for the Environment Youth Corps. The BC Ministry of Environment will also a) develop in-house expertise in the clean-up of oiled birds and animals, and b) maintain a computer directory of outside experts and support the research efforts of local scientists. These commitments are outlined in the Marine Oil Spill Prevention and Preparedness Strategy.

To view the full strategy, visit:

www2.gov.bc.ca/gov/DownloadAsset?assetId=EDBE6ACDC1FD40FBACC6FF2784C7CEBB&filename=bc_marine_oil_spill_strategy.pdf.



A LOOK AT WHAT OTHER STAKEHOLDERS ARE DOING: The Vancouver Aquarium



The Vancouver Aquarium has established a new, independent, multidisciplinary, collaboration-based, institute to fill a major gap in understanding and managing our coastal ocean environments.

The Coastal Ocean Research Institute (CORI) will systematically collect, analyze, and publicly communicate data describing the health of coastal ecosystems on Canada's West Coast.

Part of the Aquarium's commitment to the long-term conservation of aquatic and coastal ecosystems, the Institute will be a semi-autonomous, non-advocacy-based centre constituted to work in broad collaboration with governments, academia, non-government organizations, industry, and others.

Why did the Vancouver Aquarium establish CORI?

Effective management and conservation begins with understanding. The influence of human activities on coastal ecosystems is clearly evident and growing, but currently there is a limited understanding of the state of our ocean environment. Are we damaging the productivity of ecosystems or endangering species? The Aquarium believes answering this question requires a centralized science capacity to acquire, analyze, and summarize data. This will also provide a baseline or benchmark, for comparison in determining the impacts of current and future changes.

How will CORI work?

CORI will collaborate with scientists and organizations/agencies who undertake research within, and on, BC's coastal ecosystems. In collaboration with partners, the Institute will aggregate, analyze and annotate that data, and will publish a set of indices describing the health and condition of Canada's West Coast marine ecosystems. The target audience for these indices is the general public, policy makers and ocean managers. The commitment is permanent.

The new Institute will operate within the Aquarium's overall non-profit organizational structure, but will function independently through oversight by a separate Management Board. It is expected the Institute will be funded by a consortium made up of the Aquarium, individual donors, sponsor companies, foundations and others, and that it will operate as an impartial entity entirely independent of its funders. Three current Vancouver Aquarium Research Programs will become part of the Institute.

Key areas of focus for the researchers

- The ecological health of Howe Sound, and how is it changing over time?
- Killer Whale Population Status, Demography, and Feeding Ecology
- Cetacean Abundance, Distribution, and Trends in British Columbia.
- Cetacean Conservation Threat Assessment and Mitigation Research
- Conservation Genetics Program
- Marine debris and micro-plastics
- Clean seafood for coastal Aboriginal communities
- Emerging pollutant concerns

Public Activation Programs

- Great Canadian Shoreline Clean-up
- Ocean Wise sustainable seafood initiative
- Cetacean Sightings Network

Communications will be a critical part of the program as the Aquarium strives to activate the public and help individuals develop a conservation minded identity.

Points for further discussion:

- What are the specific environmental concerns related to West Coast energy production in this region?
- How can Vancouver Island First Nations participate more fully in emergency preparation and response efforts?
- How can interested parties get involved with CORI?





WEST COAST ENERGY INFRASTRUCTURE AND JOB READINESS

ECONOMIC AND POLICY CONTEXT

Major projects across Canada are leading to significant new investments, many of which are on the West Coast, creating unprecedented opportunities for growth and development. To ensure that First Nations communities are involved in and benefitting from West Coast energy infrastructure development, the Government of Canada created the **Major Projects Management Office - West** (MPMO-West). With a goal to respect and enhance Aboriginal participation in economic opportunities and strengthen environmental protection, MPMO-West focusses on the following areas:

- Business opportunities: enabling First Nations entrepreneurs, small businesses and communities to take advantage of business opportunities and create lasting prosperity
- Employment and training: increasing direct and indirect employment opportunities for First Nations through training and skills development
- Environmental safety: working with First Nations to address issues of greatest concern, including marine and pipeline safety.

An important area of investment in BC is the Liquefied Natural Gas (LNG) sector. There are two proposed LNG projects on Vancouver Island including one by proponent Quicksilver Resources in Campbell River, and another by Steelhead LNG Corp. in the Port Alberni Inlet. If these projects move forward, they will bring significant infrastructure investment and offer a number of job opportunities for local community members.

Taking into account these projects and existing industries such as fishing and aquaculture, the BC government forecasts employment to grow in the Vancouver Island / Coast region over the next 10 years.

EMPLOYMENT RESOURCES

The Aboriginal Skills & Employment Training Strategy (ASETS) is a federal resource available to organizations that design and deliver employment programs and services, with a focus on:

- Supporting demand-driven skills development;
- Fostering partnerships with the private sector and the provinces and territories; and
- Placing emphasis on accountability and results.

ASETS Agreement Holders on Vancouver Island

The following organizations have mandates to assist members of Vancouver Island First Nations to gain employment training or to obtain funding that will allow them to be employable.



Coast Salish Employment & Training Society

The Coast Salish Employment & Training Society (CSETS) is a funding, training delivery and coordination agency supporting Aboriginal individuals and communities. CSETS facilitates relationships that create opportunities to meet training employment needs and advance self-reliance.

Its mandate is to “develop programs and supports to meet training and employment needs and to be representative, accountable and responsible to all Aboriginal peoples in the South Vancouver Island area, with the objective of being recognized as a major contributor to the current and future labour force. We do this by identifying and entering into diverse partnerships and funding arrangements for the management and delivery of programs to all members of the Coast Salish Employment & Training Society communities.”

Visit www.csets.com to find out more.



North Vancouver Island Aboriginal Training Society

The North Vancouver Island Aboriginal Training Society (NVIATS) is an Aboriginal training organization with the follow objectives:

- to provide training and employment opportunities for all our people within the region;
- to commit to the principle of equal access to status, non-status, on-reserve and off-reserve Aboriginal organizations and clients;

- to create training initiatives that lead directly to full-time sustainable employment; and
- to establish parity of employment rates between the Aboriginal labour force and the non-Aboriginal labour force.

The organization offers services such as career and employment counseling; job search strategies; labour market information; and a computer lab for job search, resume writing, and labour market research.

Visit www.nviats.com to find out more.

Nuu-chah-nulth Employment & Training Program

The Nuu-chah-nulth Employment & Training Program (NETP), is one of 15 departments within the structure of the Nuu-chah-nulth Tribal Council (NTC). Since October 1, 2010, NETP has been operating under the ASETS. As an ASETS Agreement holder, NETP provides employment-related services and programs to all Aboriginal peoples living in the geographic service area covering the Vancouver Island West Coast, including the Ditidaht First Nation in the south, First Nation communities inland east to Port Alberni, and the Ka:yu:k't'h'/Chek'tles7et'h' First Nations in the north.

Visit <http://www.nuuchahnulth.org/tribal-council/netb.html> to find out more.

The Industry Training Authority Apprenticeship Advisors



The Industry Training Authority (ITA) leads and coordinated BC's skilled trades system. ITA Apprenticeship Advisors act as on-the-ground resources for apprentices and employer sponsors in communities across BC. The Advisors are an extension of ITA's Customer Support team and are part of ITA's increased efforts to build knowledge and awareness of the BC apprenticeship system.

Apprenticeship Advisors

Apprenticeship Advisors play a key role in ITA's effort to positively impact the continuation and completion of apprenticeship. By connecting, advising and engaging industry members, employer sponsors, apprentices, and other community stakeholders who have an interest in the trades apprenticeship system, Advisors develop relationships within their communities and regions to promote the value of apprenticeship and build apprentice opportunities.

Advisors are a community-based resource for:

- advising and providing resources,
- guiding apprentices who have lost their sponsor,
- developing initiatives to remove barriers within apprenticeship,
- supporting apprenticeship continuation and completion, and
- assisting apprentices and employers with navigating the trades system.

In addition to supporting apprentices and sponsors, five Advisors will also focus on recruiting and supporting apprentices within local Aboriginal communities.

Points for further discussion:







- How can the members of Vancouver Island First Nations really utilize the MPMO-West?
- What can organizations like the ITA and CSETS do to increase the likelihood that Vancouver Island First Nations will use their services?
- What job training and skills development services are needed most on Vancouver Island?
- How can the members of Vancouver Island First Nations prepare to fill employment opportunities?



APPENDIX

PILLARS OF CANADA'S MARINE SAFETY SYSTEM

PREVENTION 	PREPAREDNESS AND RESPONSE 	LIABILITY AND COMPENSATION 	ENVIRONMENTAL PROTECTION 
<ul style="list-style-type: none"> Marine Communications & Traffic Services: Providing marine safety communications, waterway management, and weather and safety broadcasts. Aids to Navigation: Adopting modern technology for buoys, lights and other warning/marketing devices; and making navigational information electronically available to vessels in real-time. Providing paper and electronic charts for mariners. Safe Navigation: Adopting regulations and strategies for safe navigation, including Collision Regulations and vessel routing measures such as traffic separation schemes. Crew Certification: Supporting the operator's duty to make sure its vessels have enough properly trained, competent crew members. Vessel Construction Standards: Making sure vessels are built to criteria established by the International Maritime Organization, such as vessel design, construction and stability; electrical systems and machinery; and safety equipment. Pilotage: Engaging local waterway experts to safely navigate vessels along Canada's coastlines and waterways. Escort Tugs: Escorting large vessels through designated areas on standby to provide assistance in the event of loss of steering or propulsion. National Aerial Surveillance Program: Keeping a watchful eye over ships to prevent, detect and monitor marine spills. Vessel Inspections: Ensuring vessels comply with Canada Shipping Act, 2001 requirements and regulations. Port State Control: Ensuring foreign vessels entering Canadian waters comply with international maritime conventions and domestic regulations. Security: Protecting Canada's marine transportation system against unlawful interference, terrorist attacks, or use as a means to attack our allies. 	<ul style="list-style-type: none"> Search and Rescue: Responding to maritime incidents requiring assistance in Canadian waters Environmental Response Systems: Administering policies, regulations and programs to protect the marine environment, to reduce the impact of marine pollution incidents in Canadian waters, and to ensure public safety. Response Organizations: Certifying private-sector organizations to respond to a marine oil spill on the polluter's behalf. Response Times and Capacity: Planning for a timely response to a marine oil spill with the right equipment. Shipboard Oil Pollution Plans: Verifying required procedures in case of an oil spill. Regional Advisory Councils: Advising on adequate levels of, and promoting public awareness of, oil spill preparedness and response. Science Table: Providing scientific advice to spill responders in real-time during an incident. Scientific Research: Conducting research into how oil behaves in the marine environment Marine Communications & Traffic Services: Coordinating with rescue resources and providing support to government and marine agencies. Places of Refuge: Providing a strategy to respond to a ship in need of assistance. 	<ul style="list-style-type: none"> Polluter Pays: Making polluters liable to pay claims for oil pollution damages or anticipated damage in Canadian waters Tier 1 – Shipowner's Insurance: Holding the shipowner strictly liable for oil pollution damages, backed by compulsory insurance. Tier 2 – International Oil Pollution Compensation Funds: Providing compensation for oil pollution from oil tankers, once the shipowners' liability is exhausted. Tier 3 – Canada's Ship-Source Oil Pollution Fund: Providing additional compensation in the event that claims exceed the compensation available under Tiers 1 and 2, depending on the particulars of the incident. 	<ul style="list-style-type: none"> Ballast Water: Managing ballast water to prevent aquatic invasive species from reaching Canada's coastlines. Vessel Air Emissions: Limiting air emissions from ships by implementing the North American Emission Control Area. Vessel Sewage: Managing sewage discharge from ships through restrictions and standards for treatment. Marine Mammals: Understanding impacts on whales through research and collaboration with partners and industry.

