Haida Gwaii – Marine Response Meeting Summary

Community Hall, Old Masset – Haida Gwaii

June 17-18, 2014

Sponsored by
Marine Planning Partnership for the North Pacific Coast

Facilitated by
Stafford Reid
EnviroEmerg Consulting
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AGENDA

JUNE 17: MAJOR VESSEL CASUALTY RISK, PREVENTION AND RESPONSE PREPAREDNESS

9:00PM-12:00PM
Welcome and Introductions
Presentation – Major Marine Vessels in BC’s Coastal Waters:
  • About Shipping
  • Vessel Traffic Routes
  • Acute and Chronic Impacts
  • Major Vessel Casualties and Risk
  • Nature of Casualties

12:00PM-1:00PM Lunch

1:00PM-4:00PM
Presentation – Major Marine Vessels in BC’s Coastal Waters:
  • Major Vessel Casualty Response
  • Institutional Challenges

Presentation – Spill Response Overview and Marine Response Issues:
  • BC’s Environmental Emergency Program
  • Spills and Spill Management in BC
  • BC’s Land-Based Spill Preparedness and Response Review

JUNE 18: COMMUNITY MEETING AND GEOGRAPHIC RESPONSE PLANS

9:00AM-12:00PM
Introductions and Recap of Day 1
Presentation – Geographic Response Plans:
  • Nature of Vessel Casualties
  • About Geographic Response Plans
  • Consultation, Collaboration, Governance
  • Models of Geographic Response Plans

12:00PM-1:00PM Lunch

1:00PM-2:00PM
Discussion and Next Steps
SUMMARY OF SUPPORTING MATERIALS

Reports:

**Major Marine Vessel Risk and Response Preparedness in British Columbia: Issues and Solutions.** This report was prepared in collaboration with Coastal First Nations - Great Bear Initiative in June 2013. It was updated and revised by the Marine Planning Partnership for the North Pacific Coast (MaPP) for the marine response community engagement meetings.

The purpose of the report is to promote dialogue geared towards improving major marine vessel casualty prevention, preparedness and response capacity within British Columbia’s northern coastal waters. The report identifies key regulatory, capacity and management issues and describes solutions to correct known deficiencies.

The goal is to collaborate and engage with federal and provincial regulatory agencies and the shipping industry to develop effective and on-going solutions that address the known institutional and technical deficiencies identified in this report.

Power Point Presentations:

**Major Marine Vessels in B.C.’s Coastal Waters.** This presentation provides an in-depth examination of the following topics: vessel traffic; casualty risk and consequences; response challenges; and solutions.

**Geographic Response Plans for B.C.’s Coastal Waters.** This presentation provides an overview of the following topics: GRP processes and GRP products.

**Spill Response Overview and Marine Response Issues.** This presentation is provided by the Ministry of Environment, Environmental Emergency Management Program. The presentation gives an overview of BC’s Environmental Emergency Program and Spill Management in BC.

These and other supporting materials can be accessed through MaPP’s Dropbox 89A. The link will be e-mailed to all meeting participants.
This document and the statements within have not been formally reviewed or approved by the organization(s) representing the Provincial Government or First Nations' governments. They are presented for discussion purposes only, and are subject to change upon formal review and revision.

MEETING SUMMARY

PARTICIPANTS

Trevor Russ (CHN – HOTT) June 17
Andrew Merilees (Mayor of the Village of Masset) June 17
Gord Hitchcock (Inspector, CO Service) June 17
Peter Dyment (Parks Canada-Gwaii Haanas) June 17
Natannis Hageman (Councilor – Village of Masset). June 17 & 18
Lucy Stefanyk (BC Parks) June 17
Russ Jones (CHN – HOTT) June 17 & 18
Darryl Struthers (Sergeant, CO Service) June 17 & 18
David Argument (Parks Canada-Gwaii Haanas) June 17 & 18
Chris Ashurst (BC Parks) June 17 & 18
Berry Wijdeven (MFLNRO) June 17 & 18
Chris McDougall (CHN – HOTT) June 17 & 18
Jason Thompson (CHN – HOTT) June 17 & 18
Meighan Wilson (CHN) June 17 & 18
Laina Bell (CHN - Haida Fisheries) June 18
Kim Mushynsky (Village of Port Clements) June 18
Graham Knox (BC Ministry of Environment) June 17 & 18
Stafford Reid (EnviroEmerg Consulting) June 17 & 18
Steve Diggon (CFN – GBI – MaPP) June 17 & 18
Allison Paul (MaPP) June 17 & 18

CONTEXT AND INTRODUCTIONS

CHN Leadership, Technical Staff, Meeting Participants

• Stafford Reid, - Consultant (EnviroEmerg Consulting), in environmental emergency risk and management is providing a presentation on major marine vessels on the Pacific Coast.
• Stafford provided a similar presentation in Skidegate on October 7th 2013 to Haida Gwaii council members, and October 16th to the House of Assembly.
• Stafford is an independent consultant with over 40 years experience in environmental emergency management (habitat protection, coastal planning, environmental emergencies), and is providing this presentation under a contract with the Marine Planning Partnership (MaPP).

1 This document is a summary of the main points of information and discussion captured at the meetings from June 17-18, 2014 and is not intended to represent all discussions that have occurred.
This document and the statements within have not been formally reviewed or approved by the organization(s) representing the Provincial Government or First Nations’ governments. They are presented for discussion purposes only, and are subject to change upon formal review and revision.

- Stafford’s presentation provides information from the Issues and Solutions report, written for CFN in June 2013, and revised in 2014 for community outreach.
- Graham Knox - Manager from BC Ministry of Environment's Environmental Emergency Program - is also attending the meeting and will provide a presentation on BC’s Environmental Emergency Program and Spill Management in BC.

PRESENTATION: MAJOR MARINE VESSELS IN B.C.’S COASTAL WATERS
Presented by Stafford Reid
The below text is a summary of the presentation. Please refer to ‘MarineTransportationMaPP.pdf’ in Dropbox89A for the full presentation.

Introduction
- The major seagoing vessels are also called convention vessels as they follow the International Maritime Organization (IMO) conventions for safe shipping.
- There is a range of cargo types on the vessels: container, general cargo, chemical tankers, bulk carriers, roll-on roll-off ferries, and oil tankers.
- Each type of cargo has its own social, commercial, and ecological impacts and operational challenges. For example, a container vessel cargo can create a widespread debris field of flotsam along shores.
- They all have industrial boilers that use a heavy fuel called bunker fuel, which is a residue oil after refineries have removed the light-ends such as gasoline and diesel.

About Shipping
- In general vessels are getting larger and are able to carry more cargo. Fewer vessels moving the same volume of goods reduces the risk owing to few shipping movements. However, if there were a vessel incident the impacts would be worse because there is more cargo to deal with.
- IMO is an international organization that is a subsidiary of the United Nations (UN). The IMO conventions are agreed upon by various countries and allow international trade to occur.
- Canada subscribes to the IMO process and codifies the IMO conventions under the Canada Shipping Act.
- The IMO conventions can’t be changed, but you can ensure that they are being complied with in so far as to ask to have access to Transport Canada’s Port State Control efforts and findings.
- Port State Control is at the national/regional level of IMO compliance. Vessels are inspected by Transport Canada’s ship inspectors to ensure they are complying with the IMO codes as well as Canadian laws.
- There are many IMO conventions that address ecological and human health matters such as ballast water exchange and sulfur content in bunker fuels.
Public understanding and oversight is needed in Canada on the thoroughness of Canada’s Port State inspections. For example, in the United States samples of ballast water are taken when vessels come into port to ensure that a deep-water exchange was completed. It is not evident whether this type of testing occurs in Canada to the same level of vigilance and due diligence.

Question and Answer Summary:

• Q – There was a fishing vessel in our waters for over three months but it was seized in the United States because it was so unsafe in terms of the way the fuel was being used, they also discovered the lifeboats were locked to the vessel but no one knew where the keys were.
  o In the United States they do a thorough check of vessels when they come into port, less so in Canada owing to lack of inspector capacity.

• Q – Do the IMO conventions tell Canada about the minimum inspections for compliance to conventions?
  o In Canada according to an international protocol (called Tokyo Protocol) Canada meets a target of inspect for specific vessels, ages, and specific matters of concern. You might want to ask Transport Canada if we actually are meeting the targets in this protocol, how many vessels were not complying with these standards and what was done about it.

• Q – How much dialogue has there been with Transport Canada regarding these issues?
  o There hasn’t been much. I think they have relied on other consultation processes rather than speaking directly with us. We had one conference call about the Bowie Seamount and transportation around there but that was it. We also work with CFN and they have had more dialogue with them. We are still at an early stage in terms of trying to understand the issues and start talking about it.

• Q – Have you seen information on how Transport Canada defines their world-class response?
  o We (MoE) heard from Transport Canada at the Musqueam First Nations Marine Traffic and Tanker Safety Summit meeting (June 9-10, 2014) and it was very high level on how they are world class and why.

• Q – I deal with Transport Canada on different levels – fuel storage, tugs, and barges. There is one person for the entire northwest region. It seems their resources are very limited.
  o I am surprised that they even inspected your facility, and took a fuel sample for sulfur level determination. Transport Canada has very limited resources.

Vessel Traffic Routes

• A requirement under the IMO conventions is that major vessels must have Automatic Information Systems (AIS). This allows ships to know where other
ships are and communicate with one another. They can also communicate to land VHS systems, which could be a very useful tool for local communities for coastal management and protection. However, there are gaps in BC’s VHS systems, particularly in the Central and North Coast. They are not expensive to install, but the management of the data can be problematic.

- There are four deep-sea ports in BC: Lower Mainland; Prince Rupert; Kitimat; and Stewart.
- The industry, the federal government, and the provincial government have spent billions of dollars on port access called the Gateway Project (building larger ports in Vancouver and Prince Rupert). However, very little money is spent on coastal protection related to major vessel casualty such as ocean rescue, salvage and logistics. Shipping investment is mostly directed towards oil spills under Canada's Marine Oil Spill Preparedness and Response Regime. An oil spill is only one consequence of a vessel casualty.
- Three types of shipping occur on our coast: port access, inside passage and the northern great circle route.
- The Inside Passage: Large container vessels travel up the inside passage from the south. Three quarters of the cruise ship industry is there in the summer. The highest risk along this route is the non-reporting vessels (smaller fishing vessels, sailing vessels, etc.).
- The Northern Great Circle Route is the shortest distance to the Asia markets and includes vessels from Port Metro Vancouver, as well as all the US Ports.
- There is a large projection in vessel traffic for this route, particularly in the North (see Nuka report).
- The Aleutian Islands Risk Assessment is a good example of what we could do in BC (http://www.aleutianriskassessment.com/). It is driven by the Alaska oversight committee, which is a public driven process.

**Question and Answer Summary:**
- Q – When there is a vessel incident in the United States the ship owner as well as the cargo owner bear responsibility, but in Canada only the ship owner is responsible?
  - Yes. In Canada, we follow the IMO and it clearly states that it is the responsibility of the ship owner and it is codified under the Canada Shipping Act and the Marine Liability Act.

**Acute & Chronic Impacts**
- Two types of impacts: chronic and acute.
- Chronic impacts – major vessels are like any other land-based industry, they have sewers, fuel, emissions, noise etc. A major vessel is essentially a mobile industrial facility going up and down the coast.
- Major vessel operations can have cultural, commercial, and environmental impacts that are chronic, and cumulative.
• Emissions from daily shipping causes air pollution from their industrial-type boilers.
• Underwater noise impacts: vessels are getting larger and they have a low frequency propeller, which creates a pulse throughout the ocean. This has a direct impact on some marine life, notably on whales.
• There is the potential to have investments to monitor ocean health. For example, AIS can be used to monitor shipping patterns that could be correlated to impacts on whales.
• Under the IMO, vessels are required to complete a ballast water exchange 200 nautical miles offshore (except in storm events – 50 nautical miles). AIS and records from the ship log books could be used to pinpoint when and where such exchanges are occurring.
• All major vessels will be required to have vessel treatment by 2016. Vessel treatment is where the invasive species in ballast are actually sterilized or killed.

Question and Answer Summary:
• Q – I understand that they sample ballast water here but they only test for salinity. However, they won't release the data that they record.
  o This is a good request to ask Transport Canada for the actual ballast protocol and data. The latter is the more salient information.
• Q – The problem with the ballast water exchange is that the sludge holds onto propagules, so a deep-water exchange does not provide a full solution.
  o That is correct. This is why treatment systems are being considered and required by 2016. As well, effectiveness can only be assured by rigorous inspections worldwide, including by Canada.

Major Vessel Casualties & Risks
• Risks are often based on statistics to determine "probability" of a vessel casualty. It is good to know, but coastal community well-being shouldn't be based only on statistical analysis, but also on a clear understanding of the consequence side of the risk equation (impacts of spill, wreckage, cargo loss) as well as the mitigation of consequences (tug rescue, salvage, places of refuge, pollution response).
• The shipping industry is not investing in salvage, rescue tugs, and other expensive vessel casualty mitigation measures because they view the probability of an accident as too low to make a business case. They need to look at the potential consequences of not having these investments in place, as coastal communities are the main recipients of the consequences.
• Off the coast of Haida Gwaii there is a high relative risk because there is a lack of ocean rescue capability by tugs, but a casualty will affect communities (e.g. if a container vessel grounds and creates a wide-spread debris field).
• Container vessels carry a lot of hazardous materials and the resulting debris field can be huge from this type of incident.
Nature of Casualties

• Most major vessels such as bulk carriers, general cargo, and containers have single hull tanks for their bunker fuel making them more vulnerable in accidents. Newer vessels under IMO convention specifications and time-lines require a space from the main hull, essentially a double-hull.
• Container debris fields may be as significant a consequence as an oil spill for both coastal impact and the challenges to manage.
• A common casualty among all vessels is the release of bunker fuel, which can be very extensive, as some large vessels - particularly bulk carriers - can carry 3,000 to 10,000 tonnes of bunker fuel - referred to as Intermediate Fuel Oil (IFO) when used on vessels.
• There are two types of oils: Persistent and Non-Persistent
  • Persistent includes crude conventional and unconventional oils, or bunker residue oils.
  • Non-persistent includes condensate or gasoline, jet fuels, diesel.
• Persistent oil will emulsify and thicken.
• All residue and crude oils will always initially float, however it changes in physical condition from weathering such as rapidly by evaporation and emulsification, and then more slowly from biodegradation and oxidation.
• We essentially only have response for persistent oil in the form of oil containment and recovery. For non-persistent types, there is not much that can be done, but stand-by and let nature take its course through dispersion and evaporation.

Question and Answer Summary:

• Q – I have been through spill response training with WCMRC and the mantra is that the oil will still be there tomorrow and therefore we don’t need to hurry or step up the response?
  • The oil will still be there the next day but it will be in a different form. Once the oil is no longer mobile, then the spill clean up is more a protracted project, rather than an escalating emergency situation. Nevertheless, through weathering, oil may mix with shore sediments such as sand, and thicken with sunlight, which necessitates a speedy assessment and action.

Major Vessel Casualty Response

• A key part of Geographic Response Plans (GRPs) could be Places of Refuge planning and decision making. The question is: where do you put a vessel once it has been towed? The options are to send it out to sea, tow it so that it grounds, or tow it to a place of refuge for repairs, hull patching, or cargo removal.
• Places of Refuge should be equitable, safe, and suitable. People need to be trained on who makes that decision and what factors go into that decision.

Marine Planning Partnership for the North Pacific Coast
You may want a vessel in a particular bay rather than have it break apart in the open ocean and polluting a wider area. That is why it is important to identify places of refuge.

Transport Canada has identified some places of refuge along the outer Coast - such as Haida Gwaii. However, they are based on ship owners’ interests not on environmental interests as they haven’t done any community outreach or consultation on this, nor incorporated environmental coastal sensitivities in their work so far.

As for GRPs, they are well developed in Alaska – look at the Cook Inlet Response Tool (http://data.aoos.org/maps/search/cirt.php). It is the best model out there right now, and it is designed specifically for GRPs.

Western Canada Marine Response Corporation is doing GRPs with the drivers being industry (Enbridge and Kinder Morgan Canada). However, the governance model has not been established with First Nations and the Province regarding such matters as: scope, design, access, priority areas for inclusion, use during a response, sign-off, etc.

Salvage companies do stability analysis, underwater surveys, hull patching, and removal of cargo. It is the number one mitigating requirement after a major vessel accident where a vessel is incurring structural failure, or a threat of one (e.g. grounded on an exposed shore and being wave battered).

There is no regionally-located salvage company or pre-positioned salvage equipment in British Columbia. As well, there is no legal requirement for salvage services, such as there is in the United States. To source a salvor requires calling one from the US, Europe or Asia and waiting for them to arrive.

There has been very little work on wildlife response. Wildlife rescue (capture), assessments, and rehabilitation are not required under Canada's Response Organization (RO) planning and preparedness standards. Traditionally, and still mostly now, wildlife response is left to volunteer non-government organizations to manage, maybe with some professional services to provide the management oversight. There has been some work in this area by WCMRC and the Province but more is needed.

There is poor ocean rescue capability in BC. There are few ocean rescue tugs that are big enough or sea worthy enough to put a vessel in tow and hold it at station (in place) or tow it to a place of refuge. There are only a few located in the south of BC but none have been supported by training, exercising, or special rescue equipment. The shipping industry refers to it as a ‘tug of opportunity system’.

Two things that have not been done in BC at meaningful levels are: talks on marine incidents involving cargo other than oil (other cargo could include hazardous materials); and the establishment of a shoreline workforce to manage a large oil spill or a container debris field.

An organized workforce is very important. You need 6,000-7,000 people for a large spill, whether oil from bunker, cargo, or a debris field from a large
container vessel. There is not a workforce program for this magnitude established on the coast.

- In-situ burning could be done to deal with an oil spill and is probably the only response for heavy grade oils such as bunker fuels and oil sands. This can only be done in calm waters, with a short window of opportunity of about 3 days.
- Dispersants could also be used to deal with an oil spill, but dispersants have a bad reputation and can be abused if not used properly such as was the case with the Gulf Oil Spill. Dispersants need to be applied to the right product, at the right time, and at the right locations. They won't work on oil sand products.

Question and Answer Summary:

- Q - Are you saying that people will deal with the spill part if an incident (i.e. oil) and other cargo is just left as junk?
  - There is no plan for cargo. Recently, I developed an exercise for the BC Ministry of Environment to begin to address how to respond to the situation of a container vessel accident, but the exercise did not end up happening due to lack of staffing capacity to organize the exercise. All the exercise materials have been developed though.

- Q – Is Transport Canada’s Places or Refuge map public?
  - The maps are not available to the public. It was the first round of assessment by Transport Canada back in the mid 1990’s for the outer coast. No work has been done since to my understanding.
  - Our view (MoE) is that it is better to have difficult conversations regarding places of refuge now rather than in the middle of an incident. We want to see GRPs for the entire coastline – we also want to see them for major water bodies and we don’t want them company by company but rather for the whole coast. Any vessel could pose a risk regardless of what it is carrying. We want to ensure we are consistent so that everyone is on the same page.

- Q – If waste is brought ashore following an incident does it then become the Province’s responsibility?
  - The Province maintains that the ship owner is still responsible for the waste, even if it has been moved to shore.

- Q – It seems that vessel regulations, inspections, response etc. are better in the United States than in Canada.
  - The States and industries in the US spend more money and have made more investments in incident response. They also have citizen advisory committees to provide oversight to identify issues, direct investments, and ensure actions are being taken by both agencies and industries. These committees also ensure regional-level, environments, interests and values are addresses, not just national ones.
  - They have also had large incidents and the public responded to them. In Canada, it has been relatively quiet until recently.
Institutional Challenges

- The Incident Command System was recently adopted by the CCG and was tested out during the Zalinski oil removal project in December 2013 (an old war vessel that was sank in the 1930’s but was releasing bunker fuel in Grenville Channel).
- When there is a vessel casualty, the ship owner will have around $134 million to use in the initial response. However, they can park a certain amount (maybe 40 million) to one side to pay for lawyer fees, penalties and potential future claims. This makes less money available for response.
- There is no transparency or guidance on how much is allocated for response, versus future costs.
- Once they reach their limit of financial responsibility as defined under the Marine Liability Act, there is a transfer of command to the CCG, who would be part of the Unified Command. The Unified Command is established during the initial response with the shipowner and could include: the Province of BC by MoE, the Federal Government (CCG), affected First Nations, and Local governments. Lead and affected jurisdictions make up a Unified Command, along with the shipowner.
- This transfer can occur well before incident closure - oil and debris can still be in the water. CCG and anyone in Unified Command must pay out of their own budgets, then make a claim to the international funds, if a persistent oil, or for Canada’s Ship source oil pollution fund - if there is an oil threat that can be tied to the actions. This creates a high financial risk to members of Unified Command.
- Each fund has to be exhausted before going onto the next level of funding - the Ship-source Oil Pollution Fund is the last one - referred to as the "fund of last resort".
- It is important that First Nations are part of Unified Command, as this is the only place where consultation and collaboration can be done effectively.

SPILL RESPONSE OVERVIEW AND MARINE RESPONSE ISSUES

Presented by Graham Knox

The below text is a summary of the presentation. Please refer to ‘MOE_Spill_PreparednessandResponse.pdf’ in Dropbox89A for the full presentation.

BC’s Environmental Emergency Program

- The response model is that the spiller is responsible for addressing their spill.
- If you are bringing the risk to the Province, we want you funding the response.
- It is the Province’s (Ministry of Environment) job to provide technical assistance and regulatory oversight, as well as be ready to take over management or lead when the spiller is unwilling, unidentifiable, etc.
- Response Capacity:
  - There are 13 Environmental Emergency Response Officers throughout BC and 5 Program Planning, Preparedness and Management Staff in Victoria.
There is a Provincial Incident Management Team (IMT) as well as Technical Specialists and other provincial resources. The IMT does not have a large budget so there has been a drop-off in participation.

- The Pacific States/BC Oil Spill Task Force has expanded to include everyone from Alaska down to California and Hawaii. They share resources and lobby their respective governments.

### Spills and Spill Management in BC

- There are about 3,500 spills reported each year in BC. Not all are above the reporting limit but all involve a workload to deal with the calls and to go out to the spill site.
- The types of spills reported include vessel and vehicle fuels, cargo, illegal dumping and pipelines.
- Dangerous Goods Incidents – about 70% of spills are from petroleum-based spills.
- The largest cause of spills is equipment failure.
- Following a spill the Province wants the responsible party front and centre.
- Transport Canada sets the regulations and leads Port of Refuge decision-making.
- The Canadian Coast Guard is the lead federal agency for marine spills response operations. They monitor a spill response and will take over the response if the responsible party walks away.
- The BC Ministry of Environment is the lead provincial agency for spills affecting BC.
- The responsible party can delegate WCMRC or another response organization to manage a spill on their behalf.
- The local government may also be involved in a response and serve in Incident Command.
- The Province believes that First Nations should be involved in the unified command and to participate in operational and logistical aspects of the response.

### BC’s Land-Based Spill Preparedness and Response Review

- This is titled ‘land-based spill’ but it will overlap into the marine environment as well.
- The First Intentions Paper was released in November 2012.
- There was a Minister’s roundtable to kick this off.
- We wanted to bring people together to go over best practices, share information, and establish working groups.
- We are coordinating with the federal government to ensure that we are moving in the same direction.
- First Nations and NGOs were invited but said there was a capacity issue and were unable to participate.
• An advisory committee of higher up officials and technical working groups were created.
• We went through all of the topics and came up with the following principles: polluter pays; requirements are based on risk; avoid unnecessary duplication; fair and transparent; opportunities for communities and First Nations in preparedness and response; strong government oversight, and continuous improvement.
• The Second Intentions Paper was released in April 2014 and is open for comment up until July 27, 2014.
• The core elements of the Second Intentions Paper are:
  o New requirements for spill preparedness, response, reporting and recovery;
  o A provincially regulated spill preparedness and response organization; and
  o An enhanced MoE Environmental Emergencies Program.

GEORGAPHIC RESPONSE PLANS FOR B.C.’S COASTAL WATERS
Presented by Stafford Reid
The below text is a summary of the presentation. Please refer to ‘GRPDevelopmentMaPP.pdf’ in Dropbox89A for the full presentation.

Introduction
• Geographic Response Plans (GRPs) are used as a guide to recognize and protect community’s socio-economic, cultural and ecological values during a response to a marine vessel casualty, or any resulting pollution, within a defined geographical area.
• Although GRPs are well established in the United States on the Pacific West Coast, they have not been fully developed in BC.
• The process of GRP development needs to be inclusive of coastal community concerns in and around the area

Nature of Vessel Casualties
• There are three aspects of a major vessel casualty that can have significant environmental threats and impacts that a GRP can address:
  o The discharge of the vessel’s cargo;
  o The release of the vessel’s engine / system fuel(s), and
  o The shipwreck itself.
• Collaboration in GRP design, scope, and governance is very important as GRPs are intended to address an escalating incident when there isn't much time for consultation.

About Geographic Response Plans
• GRPs provide response strategies that apply to a specific area, such as where to stage equipment, store oily wastes, locate a command post, find a facility for a
wildlife care, etc. They help ensure initial resources (equipment, people) are deployed at the right place and time, to protect the right coastal resources.

- GRPs reflect the social, economic and cultural values that may need to be referred to under emergency situations, where time and opportunity for dialogue is not available.
- GRPs are primarily used by those who make decisions on the disposition of a vessel needing assistance (Transport Canada), first responding agencies to undertake impact mitigation (spill contractors) and those tasked with joint management of an incident (Canadian Coast Guard, Fisheries and Oceans Canada, Environment Canada, Ministry of Environment, Local Government Emergency Coordinators, First Nations).
- A GRP is the initial tool to manage an emergency situation. They are about sending information up to authorities (incident commanders) regarding coastal values and interests, as well practical solutions to deal with the problem.
- When creating GRPs, one can rate (prioritize) areas to be protected, but it does not necessarily need to be stated why certain areas are to be protected as some of it may be confidential information such as First Nation's cultural information.
- The primary contribution of a shipowner (responsible party) and its response organization are the response strategies which are the operational tactics to protect a specific bay, shoreline, etc. It is the coastal management jurisdictions (Environment Canada, MoE, Fisheries and Oceans) and First Nations that say what gets protected. This is the standard model for environmental emergency management that is reflected in GRPs, as well as work done in an Incident Command Post.
- It is important that Local Knowledge is part of the process.
- The Cook Inlet Response Tool (http://data.aoos.org/maps/search/cirt.php) is a good example to look at. It provides essential information for making decisions. It provides shoreline imagery, sensitivity information, and information on fisheries, winds, tides, current, invertebrates, algae, etc.

**Question and Answer Summary:**

- Q – **Who would declare an emergency on the water? Would local government declare an emergency?**
  - Different levels can declare an emergency.
  - Emergencies are usually declared under the Canadian Coast Guard or the responsible party. A local government would only declare a state of emergency if the situation had direct consequences to the local government.

- Q – **Are the GRPs field tested or validated in any way?**
  - They should be tested. By doing this you are also testing your capabilities to carry it out.
Graham Knox – You may find out when you do the field tests that some things don’t work out how you planned. The higher the risk profile an area is, the more important it is to test in that area.

• Q – Do people ever get to the point of prioritization in advance or would that be done on the spot?
  o You have to make choices like that depending on weather, etc. You can quickly prioritize when an emergency happens. When you get out to field and see what is happening, you can shift things around. The most vulnerable and valuable areas that need protection come to the forefront quite quickly.

• Q – Does WCMRC go into accessing GRP online tools in their training?
  o Their job is to come in and direct, not share information. Once a year we run through an operational exercise with WCMRC but they don’t really share information and there is limited on the ground training for an oil spill. I think we need to have on the ground experience and training. They brought a skimmer out and we tried to deploy a boom but it wouldn’t work here because the water moves too fast.
  o WCMRC doesn’t have these online tools developed sufficiently to share. They are running a pilot project around Port Metro Vancouver right now.

Consultation, Collaboration, Governance

• GRP development needs to engage coastal communities with industry and its contractors, as well as government agencies to foster trust and confidence.
• It is the responsibility of the shipping industry and their contracted response organizations for salvage and pollution response to contribute the tactical (operational) elements of a GRP.
• Polluter Pay Principle – the shipping industry should have value for taxpayers.
• There should be endorsement by coastal communities.
• There should be shared management.
• Information should be available and not behind firewalls, unless confidential to users, such as First Nation’s harvest and cultural sites.

Question and Answer Summary:
• Q – Who directs WCMRC?
  o It is directed under Transport Canada. They also have a client (industry) Board of Directors and a User Group.
• Q – Who is part of the Incident Command System? Is WCMRC part of it?
  o If there was an incident the Province would be there and now the Coast Guard since they joined the Incident Command System. If there were directly impacted First Nations or local governments they would also be invited to the Unified Command. WCMRC works for the responsible party and if the responsible party is unidentifiable or has run out of money then it goes to the CCG.
o WCMRC only takes a "management advisory" role to its client (a shipowner), it does not take an Incident Commander position role. That been said, they are highly influential to the shipowner as this person is typically a ship agency or insurance representative and has no knowledge of the Incident Command System or the dynamics of the incident management.

Models of Geographic Response Plans

- There are currently two prototype computer-based GRPs in progress:
  - The Cook Inlet Response Tool developed by the Cook Inlet Regional Citizens Advisory Council
  - Western Canada Marine Response Corporations GRP developed by the Strategic Natural Resource Consultants Inc.
- There are other mapping systems that can augment GRP development including:
  - GeoBC’s Coastal Resource Information Management System (CRIMS)
  - MaPP’s SeaSketch
  - Environment Canada’s Environmental Emergencies Management System (E2MS)
  - Washington State’s Coastal Atlas
  - NOAA’s Environmental Response Management Application (ERMA)

DISCUSSION AND NEXT STEPS

- Parks Canada-Gwaii Haanas – It is hard to get useful input or cooperation from Transport Canada. In terms of local experience in Gwaii Haanas we have some preparedness for small vessel incidents in terms of public safety and small spill response. However, we are not prepared for something bigger and don’t really have an understanding of who the players are and how an incident would unfold. For example, a vessel showed up from the Japan Tsunami and it was drifting towards Gwaii Haanas. The CCG wouldn’t deal with it because it wasn’t a navigation hazard. There was a lot of running around in circles. The weather changed and the vessel ended up drifting into US waters and they made a quick decision on how to deal with it. A big gap is that we don’t have methods to deal with something similar in Canada.
- BC Parks – I deal with things like tsunami debris that comes ashore. Some dangerous goods have showed up and we removed them. For example, I found a missile two weeks ago and just dealt with the RCMP on that. I reported it to Haida fisheries and the CCG but they said that it wasn’t their problem. A container of highly toxic chemicals also washed up. With marine search and rescue we are not supposed participate in oil-spill recovery events - the primary focus is people and safety. I met someone who coordinated thousands of volunteers to respond to a wreck. There was the rule that only employees could work on the beach. However the employees were truckers and sign holder...
people who were useless and actually spread the oil further (they took some 20 minute course on this). Volunteers had incredible buy in – there were updates on twitter and social media on where the clean-ups were happening. The organization was called Sustainable Coastlines and they worked on safety for volunteers as well. I am told that volunteers will not be allowed on the beach if something happens here but it would be difficult to stop them. However, I would love to coordinate people and make sure they are safe.

- CHN-HOTT – As a member of the community and wanting to do something now I am wondering what can we do at this point to start to prepare for these things (i.e. organize a community group)?
- Village of Masset – A course we took had a scenario about a vessel spilling oil that was going to end up on North Beach. The question for the scenario wasn’t what are we going to do but rather what are we going to do with the waste? What resources do we have?
- Village of Port Clements – I have worked in IC and emergency command for 20 years. I have never had to do something though so I feel inadequate if something were to happen. No one on my team has ever been in a real life situation. We can talk about it and identify people but I don’t know how you give people real life experiences.
  - People want to do something but until we have the funding it is hard to do. If you make a resource list make sure to maintain it because it will always be changing (i.e. this boat is no longer here). We can do an annual exercise, practice shoreline workforce, oiled wildlife etc. If you keep doing a new exercise each year it keeps the information fresh.
- Village of Masset – We need to identify the key people who could be involved in an event. I work for a company that has barges so that may be a company that could help out in a particular situation. That is the type of capacity building I am talking about - knowing who to contact in specific events
- CHN-HOTT – Haida Fisheries have been involved in some environmental management projects and safety training but we are not in a situation where we can respond to major events. The Haida Nation is involved in higher-level discussions to put together some processes. Where do we have some capacity is through marine planning. We have extensive databases on commercial fisheries values etc.
- MFLNRO – I work for MLFNRO and we have very little experience in marine response. We do lots of search and rescue on land and we have people trained in first aid, fire fighting etc. We have a couple of boats. We have officers who work with Darryl (Sergeant, CO Service) now and have eyes and ears on the ground. We have little background and experience for marine response though.
  - The actual response is only 2 to 3 weeks. Then it becomes intensive response to do the shoreline clean up. The challenge is that emergency management system needs to fit in the context of responsible party.
• CO Service – You need to create a chain of command that everyone here is going to recognize and respect or there will be chaos from the start. Within the federal government there has to be someone in the Unified Command. All have to agree on an incident commander. If no one wants to recognize the other party it will be chaos. We did this after 9/11 and now when incidents happen we work together to ensure public safety and manage the incident. We need to get to this on Haida Gwaii. Talk about managing volunteers, etc. but in order to get this in play you need to identify people and get the process going.

• Ministry of Environment – We say a lot about federal deficiencies – there a lot of good people in Transport Canada etc. that have been held back by political deficiencies. Now that those barriers have been broken down they are able to do ICS and move forward with this.

• CHN-HOTT – First Nations need to identify individuals who can be part of Unified Command. We don’t have a situation like in the Central Coast that would have 4 or 6 First Nations that would have to work together. When we talk about GRPs it sounds like the people here are important for identifying values. Part of it is priorities too.

• CHN-HOTT – we have some local government structures or partnerships and there have been discussions about sharing resources for the island. That would be a good forum to have this discussion – I don’t know if the right people are there from CCG, local government, etc. but it might be good to discuss what the best process is for continuing this discussion.

• Parks Canada-Gwaii Haanas – In Gwaii Haanas we have also been discussing the idea of sharing resources. It’s taking effort to bring DFO along but steps are being taken.

• Parks Canada-Gwaii Haanas – We have been off the cruise ship route on their way to Alaska but there have been recent moves between Gwaii Haanas and Parks Canada for a boutique cruise line. If we are attracting that visitation again we are increasing risk.

• CHN-HOTT – we have to continue the scoping exercise and identifying who would take the lead, who the contacts would be, etc.

• CFN-GBI-MaPP – We will be generating a template based on best practices. It’s about adding onto that what FN or local communities might require. It will be on the MaPP website as a deliverable. Will try to finish template by late summer.

• CHN-HOTT – the Ministry of Environment Intentions Paper that Graham Knox discussed can set the stage for funding etc. From First Nations perspective, we haven’t had adequate discussion with the shipping industry so those political level discussions still need to happen. Graham mentioned that the places of refuge areas may be possible areas to start with GRPs but I think first we need to look at these places and decide if those should be places of refuge first. We aren’t always starting from the same place with industry etc.
• CO Service – When will discussion start on what is effective compliance and enforcement? Someone needs to ask if this is acceptable? Do you have the assets to do this? (Concern about being able to deliver the strategies in the plan around compliance and enforcement).

• MFLNRO – We are working on the implementation chapter right now for the MaPP Haida Gwaii Marine Plan and will be looking at compliance and enforcement.

• BC Parks – Is there a plan for a follow up meeting to this?
  o Not right now but we will reconvene as a MaPP group and see if it might make sense for the fall.

Next steps following this workshop will be determined by MaPP. The participants who attended this meeting will be kept in the loop regarding future workshops or any ongoing discussions on this subject.

QUESTIONS TO ASK THE SHIPPING INDUSTRY AND/OR REGULATORY AGENCIES

The following questions and requests, developed by Stafford Reid (EnviroEmerg Consulting), are directed towards the shipping industry and regulatory agencies for shipping and are intended to be used to acquire a more complete understanding of their mandates and to obtain data derived from their services. These questions and information requests go beyond what can be researched on the Internet and get to the core of coastal protection and management.

1. There should be transparency about major vessel compliance with IMO conventions to ensure operational measures are being complied with. To ascertain if Transport Canada Ship Inspectors are doing full inspections, not just paper inspections, one could ask:
   a. How many ship inspectors are there?
   b. What training have ship inspectors undergone for specialized vessels such as LNG, chemical, and oil tankers?
   c. How far do they go inspecting vessels (i.e. hull structures and engine/steerage systems)?
   d. Are ballast water and sulfur content in fuels physically examined? If so, how does one obtain the data?
   e. Do you record the location and time for mid-ocean ballast exchange from the vessel’s record books?

2. You may want to ask the vessel charter companies if they are going to show up if there is an incident (in the US the responsibility includes the ship owner and the cargo owner, but in Canada only the ship owner is responsible).

3. As there are not any regulations regarding how close vessels come to shore, you may want to ask where the turning points are, what is their safety margin (at what point do they call a rescue tug)?
4. By examining data from AIS systems, one can ask questions such as: why did the vessel go into a certain area during a storm event? Why did the vessel go into a specific area even though it’s closed?
5. Ask BC Pacific Pilotage Authority: How much training related to LNG carriers will their pilots have, and will there be enough BC Coast pilots to handle the increase in LNG tankers relative to other vessel sector growth in the area?
6. Ask the BC chamber of shipping what investments they have made in coastal protection such as ocean rescue, salvage, logistics, etc.?
7. Ask the international fund managers and Canada’s Ship-Source Oil Pollution Fund administrator whether the international funds will pay for loss of sustenance and the goods and services that a healthy coast provides.
8. Ask BC Pacific Pilotage Authority where the high-risk areas are and why they are considered high-risk areas.
9. In terms of needed information on cetacean populations, one can ask Fisheries and Ocean’s Canada for investments in hydrophones and other tools in order to obtain this information.
10. In order to find out whether vessels are complying with IMO standards you can ask Port State Control if they are taking samples of oil? If so, how many vessels were complying and how many were not?
11. Ask Transport Canada, who is the lead agency for dealing with Hazardous chemicals such as from a chemical tanker or container vessel, where a oil spill the minor threat?
12. Ask Transport Canada where they are in the process of identifying places of refuge and if they have, or will, be doing outreach and consultation with coastal communities, particularly First Nations.
13. Ask industry and their contracted service (WCMRC for oil) who they are going to get for their shoreline workforce and how many people they think they will need for a major oil spill, of different types, or for a container debris field? Enquire whether they have, or will, undertake surveys to determine availability and willingness to be engaged with full knowledge of hazards of product, environmental seasonal, and working conditions, wage scales, expected durations, etc.
14. Ask CCG if there has ever been a transfer of command in Canada and if they have ever done one. Where do they think they stand in this?
15. One can ask Port State Control if they will be inspecting every LNG carrier, who will do the inspections, how often they will be inspecting them, and if you will be able to see the results.
16. Ask LNG industry about burn back when LNG is ignited. What is the consequence to fishermen if backdrift is 5km to a community? What is happening in zone 3 in terms of public safety and burn back? Ask if they are willing to provide workshops on this public safety matter.
This document and the statements within have not been formally reviewed or approved by the organization(s) representing the Provincial Government or First Nations' governments. They are presented for discussion purposes only, and are subject to change upon formal review and revision.

If you attended this meeting and have any information that you would like to add to the summary please contact Allison Paul apaul@mappocean.org