

Enbridge Northern Gateway Project Joint Review Panel

Written Comment Form

The Joint Review Panel (the Panel), established to review the Enbridge Northern Gateway Project (Project), has a broad mandate to assess the potential environmental effects of the Project and to determine if it is in the public interest.

As an initial step in the review process, the Panel is interested in receiving comments on the following three topics:

1. the draft List of Issues attached as Appendix I;
2. additional information which Northern Gateway should be required to file; and
3. location(s) for the oral hearings.

The Panel encourages interested people to provide their comments in writing by using this form.

Contact information and written comments will be placed on the public registry.

Participants submitting written comments should provide the following information by noon (Mountain Standard Time), Wednesday, 8 September 2010:

Hard copy filings may be made by mail, courier, hand delivery or fax at the address below.

Joint Review Panel – Enbridge Northern Gateway Project
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Calgary, Alberta T2P 0X8

Facsimile: (403) 292-5503, or toll free at 1-877-288-8803

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National Energy Board
Office national de l'énergie

Canada



Canadian Environmental
Assessment Agency

Agence canadienne
d'évaluation environnementale

List of Issues

The draft List of Issues has been included at the end of this form.

Are there other issues that you think should be considered in the Panel process?

Yes ☐ No ☐

If yes, please indicate what additional issues and provide a brief explanation of why you think it should be added to the List of Issues.

Additional Information

Is there additional information that you think Northern Gateway should be required to file prior to the Panel's initiating further procedural steps in the review process?

Yes ☐ No ☐

If yes, please indicate the additional information and provide a brief explanation why it should be filed by Northern Gateway at this time.

Oral Hearing Location

What location(s) in the project area do you think should be selected and why?

Additional Enbridge Northern Gateway Project application information can be found at www.gatewaypanel.review-examen.gc.ca.

Draft List of Issues

The following lists the issues which the Panel will be evaluating, however not limited to, as it conducts its environmental assessment of this project and its public interest determination review.

Need For the Proposed Project

- Is there a need for the project as proposed by the applicant?
- What is the economic feasibility of the proposed facilities?

Potential Impacts of the Proposed Project

- What are the potential impacts on:
 - Aboriginal interests;
 - commercial interests; and
 - landowners and land use?

Environmental Effects

- What are the potential effects on environment¹ and social economic matters?

Financial Regulation

- Is the proposed differential tolling structure and tolling methodology appropriate?
- Is the proposed method of financing appropriate?

Design, Construction and Operation

- Is the general route of the pipeline, location of the proposed facilities and the siting of the marine terminal appropriate?
- Is the applicant's consultation program for the Project adequate?
- Is the design of the proposed facilities suitable?
- What is the capacity of the applicant to safely build and operate the proposed facilities in the range of physical conditions) along the Rocky and Coastal Mountains and at the Kitimat Terminal?

Safety, Mitigation and Prevention

- What safety measures are in place to protect people and the environment?
- What are the consequences of hydrocarbon releases from the Project?
- Are the proposed risk assessment, mitigation and prevention measures and programs appropriate for the design, construction, operation and abandonment of the proposed facilities?
- Are the proposed plans and measures for emergency preparedness and response appropriate?

Terms and Conditions

- What terms and conditions should be included in any decision the Panel may issue?

¹ Including those to be considered under the *Canadian Environmental Assessment Act* as outlined in Parts I, II and III of the Joint Review Panel Terms of Reference (see following pages).

Terms of Reference²

Part I – Scope of the Project

The project includes the construction, operation, decommissioning and abandonment of the following components:

- An oil pipeline commencing near Fort Saskatchewan, Alberta and terminating at a new marine terminal located in Kitimat, British Columbia;
- A condensate pipeline commencing at a new marine terminal in Kitimat, British Columbia and terminating near Fort Saskatchewan, Alberta;
- The right-of-way for the two pipelines as well as any temporary workspace required for the construction;
- Associated pump stations, a pressure letdown station (oil) and a pressure initiation station (condensate);
- Tunnels through North Hope Peak and Mount Nimbus to facilitate crossing of the Coast Mountains by the pipelines;
- A tank terminal, including hydrocarbon tanks, pump facilities and other land facilities, adjacent to the marine terminal;
- All-weather road access and electrical power requirements for the pump stations, the tank terminal and the new marine terminal in Kitimat, British Columbia;
- Block valves located at pump stations, selected watercourse crossings and other locations along the route;
- Pigging facilities at either end of the pipeline system and in selected intermediate locations;
- Cathodic protection system for the pipelines and tanks, including anode beds at selected locations along the pipeline route;
- Two marine loading and unloading berths (one each for oil and condensate) including:
 - loading and unloading platforms;
 - breasting dolphins;
 - mooring dolphins;
 - gangway tower;
 - walkway bridges between platform and breasting dolphins;
 - utility boat floating dock;
 - oil contingency deployment system with storage platforms;
 - fire fighting systems;
 - offshore anchorages in Kitimat Arm or elsewhere; and
 - pipeline interconnects between the berths and the tankage.
- Marine transportation of oil and condensate within:
 - the Confined Channel Assessment Area, as defined by the proponent, which includes the marine and shoreline area of Kitimat Arm, Douglas Channel to Camano Sound, and Principe Channel to Browning Entrance;
 - Hecate Strait; and
 - the proposed shipping routes to be used for the project that are within the 12 nautical mile limit of the Territorial Sea of Canada.
- All related works and activities including:
 - all temporary electrical power supply lines, such as those supplying energy for camps and worksites;
 - temporary work camps;
 - temporary access roads;
 - bridges and watercourse crossings (new or modified);
 - management and treatment of wastewaters and waste management;
 - water withdrawals;

² The definitions in the Agreement between the National Energy Board and the Minister of the Environment concerning the joint review of the Northern Gateway Pipeline Project will apply to this Appendix.

- borrow pits and quarries;
 - management of excavation material, including stockpiles (e.g. overburden);
 - log handling and storage facilities
 - construction worksites, storage areas and staging areas;
 - handling and storage of petroleum products and hazardous materials;
 - handling, storage and use of explosives; and
- Any other components described by the proponent in its Preliminary Information Package, filed with the National Energy Board on November 1, 2005

Any additional modifications or decommissioning and abandonment activities would be subject to future examination under the *National Energy Board Act* and consequently, under the *Canadian Environmental Assessment Act* (the Act), as appropriate. Therefore, at this time, the Proponent will be required to examine these activities in a broad context only.

Part II - Factors to be Considered During the Joint Review

The joint review will include a consideration of the following factors listed in paragraphs 16(1) (a) to (d) and subsection 16(2) of the Act:

- The environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- The significance of the effects referred to above;
- Comments from the public and Aboriginal peoples that are received during the review;
- Measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project;
- The purpose of the project;
- Alternative means of carrying out the project, that are technically and economically feasible and the environmental effects of any such alternative means;
- The need for, and the requirements of, any follow-up program in respect of the project; and
- The capacity of renewable resources that is likely to be significantly affected by the project to meet the needs of the present and those of the future.

In accordance with paragraph 16(1)(e) of the Act, the assessment by the Panel will also include a consideration of the following additional matters:

- Need for the project;
- Alternatives to the project;
- Community knowledge and Aboriginal traditional knowledge received during the review;
- Measures to enhance any beneficial environmental effects; and
- Environmental protection, environmental monitoring, and contingency and emergency response plans.

Part III - Scope of Factors

The Panel in conducting its consideration of the factors outlined in Part II will have regard to the following:

- The National Energy Board's *Filing Manual* dated 2004 as amended from time to time; and
- The document issued by the Canadian Environmental Assessment Agency, in response to comments received on the draft Joint Review Panel Agreement, entitled "*Scope of the Factors - Northern Gateway Pipeline Project, August, 2009*".

PRESENTATION BY THE NORTHERN BRANCH OF THE STEELHEAD SOCIETY OF BC ASKING THE JOINT REVIEW PANEL ON THE PROCEDURAL DIRECTION FOR THE ENBRIDGE NORTHERN GATEWAY PROJECT TO INCLUDE ADDITIONAL ISSUES THAT SHOULD BE DISCUSSED DURING THE ASSESSMENT OF THE PROJECT PROPOSAL AND ADDITIONAL COMMUNITY HEARING LOCATIONS

In reference to the various headings the Northern Branch is putting forward a number of additional issues that it would like to see incorporated into the existing "Draft List of Issues".

Included is a second part presentation focusing on specific issues related to pipeline design etc. and whether the issue list covers those points

Need For the Project

Is it in Canada's, Alberta's and British Columbia's Interest for this Project to be Constructed?

Under this sub-heading there is no clear or transparent Canadian National Energy Policy. This shortcoming leaves Canadians in the dark over the status of our Nations future oil requirements. Further complicating this issue are conflicting views over how much oil can be recovered while at the same time not destroying an unacceptable level of the natural environment, wildlife habitats, contamination of surface and groundwater water and altering the quality of the life style and health of people who will be impacted by oil extraction from the tar sands.

With an obvious lack of a national direction it is unacceptable to expand the sale of oil to other Nations when so many critical issues require a broad discussion and the development of a consensus between Governments, the public and First Nations.

Selling our countries oil to balance trade deficits, provide funding for Government programs and creating employment should not be reasons push development ahead too quickly. Such a policy jeopardizes future income and employment opportunities for Canadians, particularly Albertans following depletion of oil revenue?

More production from the Tar Sands (30+%) to supply the Enbridge Gateway pipeline capacity means more consumption of Natural gas (the cleanest fossil fuel) to create heat, steam and hot water to separate the oil from the sand and other compounds. This expansion will result in an increase in the loss of wild land and wildlife habitat, more water will be polluted along with an ever greater impact upon the lives of the aboriginal people who have lived for countless generations around and downstream of the tar sands development area.

More secondary manufacturing, such as refining oil into gasoline seems to be one of the realistic alternatives to shipping off the raw product to Asian markets.

Less shipment of the raw product should be a prerequisite of a National Energy policy.

With in this debate the question that must be asked, should more than one oil pipeline traverse British Columbia? The Kinder Morgan pipeline between Alberta and Burnaby BC is being upgraded and expanded. Would an off loading terminal at Roberts bank be an alternative oil port which would be away from the busy Burrard Inlet and Vancouver port?

If expansion to Roberts Bank not in tune with the public sentiment or mood which is reflected in polls that show that more than 80% of respondents "say no new oil pipelines should be built in B.C.". If that is so, the broader question of selling and shipping oil offshore to Asia requires a National and British Columbia discussion/debate.

With a dramatic decline in Alaska oil the lower 48 American states will require more Canadian oil. Our Branch interpretation seems to be contrary to media reports that tend to express a view that the American Government does not want dirty Canadian Tar Sands oil. The fact is that few other options exist where Americans can purchase a reliable and stable supply of oil. Those remaining sources of supply are from existing off shore countries which are seeing a decline in their remaining pools of oil. Many experts think that peak crude oil production world wide has now exceeded the supply. There is little doubt Canada will be seen as the most reliable and preferred choice for the U.S..

Existing pipelines into continental U.S. are capable of transporting a large amount of Alberta oil. Our organization is not in a position to determine if the level of oil transported to the U.S. at the present time is sustainable over a relatively long period or whether the flow should be increased or decreased to address the long term objective and supply, subject to all of the environmental and social restraints that will have to be met. By going with the status quo production and flow will provide Canada with time to determine its own needs. In a sense a moratorium on increasing production will at the same time create a less aggressive and a more environmentally friendly tar sands production regime. **This will provide time and opportunity to debate and ultimately solve the some of the most serious and vexing questions on energy our country has ever faced.**

Environmental Effects

With global climate change happening much sooner and at a more accelerated rate than most people expected it is imperative for a discussion and analysis over how much of a carbon footprint the Enbridge Gateway pipeline would contribute through trade to Asia. Our point emphasizes the greater usage and dependency of the oil purchased by the developing countries. The sale of oil to these countries will expand the use of the internal combustion engine and production of carbon dioxide, which in turn will exacerbate a fragile, while at the

same time changing climate which has caused enormous impacts and havoc through out the world in 2010.

Design, Construction and Operation

No public discussion or consultation over the creation of the so called Energy Corridor through British Columbia (which Enbridge is planning to use) has ever been initiated by our Canadian or British Columbian Governments. It is clear that little or no effort was made to select the location that will cause the least disturbance and alteration to ecological values and wild and pristine land. Or where an oil spill can most practically and easily be accessed and cleaned up. The values that our organization treasures and that a Nation and Province promotes and prides itself on having continue to take second place to economic imperatives. There is a need for a broad and thorough discussion over the thought that mitigation is an option to restore these values, it is not.

Locations for the Oral Hearings

Terrace and Prince Rupert with their central geographical locations should be added as two additional population centers where the future Oral Hearings should be held. This will allow people and organizations the convenience and opportunity from small outlying communities and the two the largest cities in the NW Region to participate.

Respectfully submitted by

Jim Culp Chairman Northern Branch of the Steelhead Society of British Columbia

Brian Kean Director and Chair of the Kitimat Committee

Comments and concerns Of the Steelhead Society of British Columbia

Within our membership there are centuries of experience and observation of our local rivers and their fish

Those who do not angle generally have no real understanding of rivers and watersheds. Angling is our passion and joy in life. That is what we do and are.

We have seen our rivers in all their vagaries and moods. Each river is different in character and personality. Our experience and judgment convinces us that those rivers subject to spills, are particularly vulnerable and that no spills management is adequate or even possible.

So, in this section we will comment on issues to the pipeline itself and the drastic threat it poses....

Volume 7B: Risk Assessment and Management of Spills – Pipelines

1 Introduction

1.1 Background

Pursuant to the *Canadian Environmental Assessment Act (CEA Act; Section 16[1])*, proponents are required to consider environmental effects of malfunctions or accidents that might occur in connection with the Project

We would be so much happier if the word “consequences” was included. This is touched on in section 7.8.2. However we find that section lacking in detail and appropriate comparisons. We also had difficulty in finding research and valid comparisons. Perhaps they don’t exist.

2.1 Pipeline Design Measures

This design process will follow the integrated approach, which includes methods for design review and verification and engineering quality control. Quality assurance measures will be implemented to verify that construction materials used for the pipelines comply with Onshore Pipeline Regulations, 1999 (OPR), which incorporate, by reference, the Canadian Standards Association (CSA) Z662-07, Oil and Gas Pipeline Systems. Inspection and testing will verify the integrity of the pipelines before commissioning.

3 Probability of Hydrocarbon Spills

The probability or risk of a spill is the very crux and core of all Canadian's concerns over this project.

“Results of the most recent analysis of the NEB liquid pipeline failure database from 1991 to 2009 were used to represent applicable failure types.”

Does this data base deal with comparable projects? It seems it will cross every possible climate and terrain types to found in the world short of the Sahara desert. We are not convinced the data base is at all adequate to cover this project. We are concerned that the methodology of calculation is not mentioned. Surely such calculations as crucially important as these should be open to peer review.

It has been reported that this project is unprecedented in its engineering complexity and scale within Canada. The terrain offers never before encountered challenges. We do not accept that the above mentioned standards apply to such circumstances.

4.1 Physical Properties (table)

Table 4-1 Physical Properties of Hydrocarbons in the Marine Environment

Parameter Evaporation

(% of volume)

Density at

15°C

(g/cm³)

Viscosity at

15°C

We find it very interesting that 15 degrees C is used in this context.

15 degrees is rarely if ever encountered in our northern waters

Water-in-Oil Emulsification

Under moderate to rough water conditions, hydrocarbons take up water to form water-in-oil emulsions.

Stable emulsions can contain up to 80% water and the resultant viscous “chocolate mousse” slows other weathering processes, particularly evaporation and natural dispersion, leading to greater persistence of the hydrocarbon. Breaking waves and wind speeds greater than 5 cm/s are generally regarded as necessary conditions for formation of stable oil-in-water emulsions.

Stability of the emulsion usually increases with decreasing temperature.

Perhaps the Enbridge decision makers would do well to take a float trip down the Copper and Morice rivers. They will encounter conditions that guarantee emulsion and its persistence

Biodegradation

Microbial degradation usually occurs at a hydrocarbon and water interface. Factors influencing the rate and extent of this process include characteristics of the hydrocarbon, temperature and availability of oxygen and nutrients (primarily nitrogen and phosphorus). Microbial degradation is a relatively slow process but, over time, can remove a large fraction of hydrocarbons from the environment.

Not likely in our cold, almost sterile coastal rivers. The last sentence we find particularly sinister. Time is not an ally in this scenario. The Salmonids of the Zymoetz River, Kitimat River and the

Bulkley River systems have fresh water residency (juveniles) from one to five years. TIME would seem likely to extinguish all anadromous fish.

5.1 Pipeline Oil Spill Response Plan

Nowhere in this plan is there even a cursory attempt to deal with inclement weather conditions. It has perhaps escaped the notice of the designers that this part of the country has extreme winter snow falls. Access to a rupture is less than unlikely.

It also does not deal with ice covered rivers. What would be the containment strategy be then?

It is well known that this part of the province is subject to massive rainfall events. Those rivers that are potentially affected by a spill can rise a full meter overnight. Historically there are known cases well over that. Any containment strategy would be totally overwhelmed by this likelihood.

From:

Volume 6A: Environmental and Socio-Economic Assessment (ESA) –
Pipelines and Tank Terminal
Section 11: Freshwater Fish and Fish Habitat

This section mentions that the Kitimat River pipeline section has 2.01 watercourse crossings per kilometer and the Skeena River drainage 1.5 crossings per kilometer. Some are fish bearing and some not.

As previously stated this area gets spectacular rainfall events. The most dangerous being rain on snow conditions. This happens when an early snowfall blankets the mountains and is then followed by a wet warm front with high rainfall. The run off is almost biblical.

Even the most innocuous and minor appearing water flows become raging torrents that can destroy way beyond any previously imagined perception. We have seen roads ripped up in places we didn't even know there was drainage. It is very humbling to come across roads once considered well ballasted and drained: now torn asunder and never to be used again as they are irreparably damaged.

We wonder if the engineers and designers of this pipeline are aware of this fact and should be questioned on this topic. We believe pipelines buried a meter or more deep are in no way safe from this eventuality. The pipeline may be highly vulnerable to this possibility.

9.5 Example 4: Large Hydrocarbon Release in a High-Gradient Watercourse (KP 1098.7, Hunter Creek)

The residents of Kitimat find this a particularly dismal prospect.

KP 1098.8 is in the Coast Mountains physiographic region, which has a calculated large size frequency of one spill per 1,058 years for the entire region (see Table 3-2). The frequency for KP 1098.8 is calculated to be one in 55,556 years, assuming a pipeline impact length of 2.0 km..

I suppose one in 55,556 years is designed to give comfort and assurance. Perhaps it would were it expressed in terms of –say every 50,000 years. To refine it to that extent seems bogus and more like a public relations exercise. It would be interesting to see the calculation process.

Again, there is no attempt to deal with winter conditions. Does the researcher understand that in mid winter it is pretty standard to have a meter on snow on the ground? (Sometimes much more) Hunter Creek is in, even by Kitimat standards, a snow belt.

The “plan” speaks to skimmers and “construct berms, weir dam or multiple cascading boom lines used downstream of hydrocarbon source for containment”. Again, the key is access. This is difficult terrain. Also consider the comments above in reference to water height rises.

Again from 5.5

The hypothetical cause of the spill into Hunter Creek is a pipeline rupture or failure. A large volume of 2,000 m³ is selected for this example (see Table 3-1 for size definitions). This volume is greater than that of the August 2000 crude oil spill (973 m³) from the Plateau Pipeline into the Pine River in northeastern British Columbia, but represents a volume that could be released in a complete rupture and draw down. The maximum credible potential volume loss at Hunter Creek is forecast to be less than 2,000 m³ because engineering design was refined to reduce risk as a result of environmental sensitivities at Hunter Creek.

This example is for summer (June), when environmental effects would be greatest.

. As we see this scenario the very admission that the maximum volume could be 2000m³ suggests it could be very much more. If they are prepared to admit to this much: then what is the most real likelihood? The Pine River still suffers from that spill. This was a spill that occurred less than 24 hours after Pembina took responsibility for that(then) recent purchase.

In section 7.8.2:

“ After two years, the Pine River ecosystem was reported to be capable of supporting fish and wildlife, and had almost returned to baseline conditions (Pembina 2004)”

We view this claim with suspicion. The panel should require the applicant to provide documentation on baseline conditions. This would require fish stock assessment. We strongly doubt that such documentation exists and doubt that there is current stock assessment data.

“A closure on recreational fishing would probably be in place for some time, perhaps up to four years or more, to allow populations time to recover”.

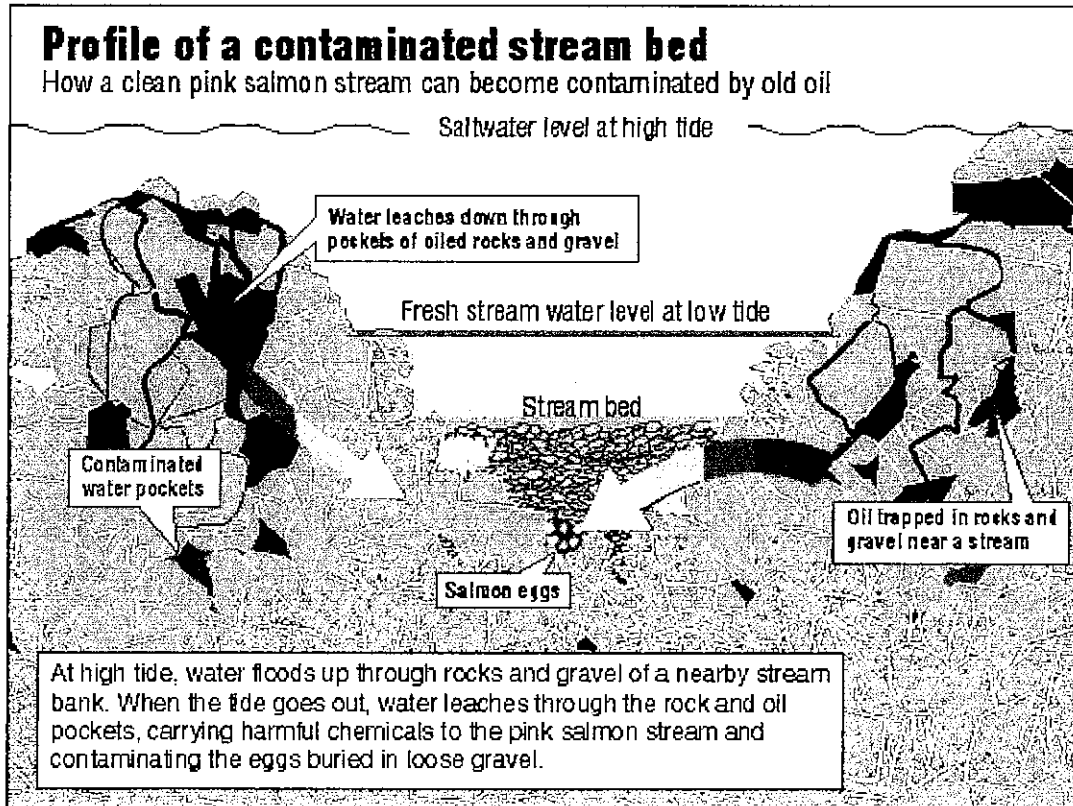
Also from sec 7.8.2:

Hydrocarbons in surface sediments can degrade relatively quickly, but if they sink into the sediment, contamination at depth may remain indefinitely (Reddy et al. 2002; Wang et al. 1998). As a result, time for full recovery of stream habitat can vary.

The Kitimat River is in a state of recovery from massive habitat destruction caused by logging in the 1960's and 1970's. That is why there is a hatchery. The river is highly mobile in that it changes its course frequently. The stream bottom is of smaller rock and gravel that “churns”. But a few years ago, a hydrologist reported that there were three gravel “slugs” moving down river. The above comment “contamination at depth may remain indefinitely” seems almost certain.

The bottom may well be of smaller aggregate, however there are many point on the river where the banks have been armored with shot rock. These points and the rock can entrap oil and we believe impossible to clean. The following illustration was to illustrate an estuary area. We feel it

is illustrative when the line "saltwater level of high tide" is substituted with "river high water level"



Source: Mandy Lindeberg, National Marine Fisheries Service, Alaska Bay Laboratory, Juneau

HON ENGSTROM / Anchorage Daily News

The above illustration holds true for the Morice/Bulkley and the Clore/Copper river systems.

From 7.8.3

"Stocking of species of concern to aid population recovery"

The Kitimat hatchery has been striving with great effort to restore the Kitimat River fish populations for many years. Their success has been mixed. In general terms that restoration has not been exactly outstanding. Further more due to the loss of warm water from Eurocan, the Cutthroat program has been cancelled and the Steelhead program is very much in doubt. The hatchery does not support pink salmon which the application admits is the species most at risk from a spill

The panel would do well to ask some very pointed question about enduring effect and sub lethal effects on Salmonids. When on the topic they should ask the nature of a spill on a river whose estuary is at the head of a fiord. Those estuaries are at the highest level of risk. We say highest, as there are no natural cross tides or currents that may take away at least some of the oil contaminants. Not that "carrying away" a solution or mitigating factor.

The watershed just "over the hill" would be a much more interesting scenario. The Clore River, which is a tributary of the Zymoetz(Copper). The Zymoetz in turn is a tributary of the Skeena. This

watershed is complex with even more access difficulties. This watershed is subject to winter weather and canyons that defy access. The gradient is similar to the example with major rapids.

We of the Steelhead Society know this river well and can not understand how "skimmers" and other such controls could be utilized. This river is a fine example of the oft used description of big brawling and rugged river. The surrounding terrain is largely unstable – slides and avalanches are only too frequent. The access road is frequently "washed out" or made impassable due to rock falls. To put in better perspective-there are places on this one lane "road" where one is advised not to look over the edge- if one has a problem with heights.(it is a very long way down!)

Furthermore the license application is deficient in that it is very vague in informing that the Clore River and the Morice River are tributaries of and thus direct conduits to one of the world's major salmon producing rivers. Both the Morice and the Zymoetz are direct tributaries of the rich Skeena system. This river system has been rated as one of the five top salmon producers in the world. Clearly it is the second best producer of Salmon in Canada. The application would have done well to mention that very important fact.

This watershed would be a nightmare when a rupture occurs. It is our opinion that any meaningful response would be futile and entirely unsatisfactory.

The following is a quote from an Enbridge news conference –the Kalamazoo spill:

Currently there are 79 vacuum trucks, 48 skimmers, 19 tanker trucks and 43 boats involved in the clean-up efforts. There are also 69,000 feet of boom deployed to try to contain the spill, as well as absorb it.

This level of effort is laudable-we suppose. We have viewed photographs of the spill site. It is a lovely, almost pastoral setting, with good and abundant access. This would certainly be not the case on the Morice/Bulkley Rivers or the Clore/ Zymoetz Rivers.

Enbridge puts much value on the SCADA system of pipeline control and presents it as a safety feature.

"Richard Kuprewicz, an expert in oil pipeline safety with 40 years experience, says that the thicker viscosity of the tar sands oil and the use of diluents to thin it out for pipeline transport also create frequent pressure warnings in the pipeline monitoring system, false positives that can make it more difficult to detect a real pressure problem in the pipe, which can indicate a leak."

From: <http://www.theoil drum.com/node/6848>

This comment is very worthy of pointed questions and exploration. His bio is available on line.

Also during research we have found there are very serious concerns over SCADA security. Security was the subject of the US congress. The following transcript is worthy of thoughtful review:

**SCADA SYSTEMS AND THE TERRORIST
THREAT: PROTECTING THE NATION'S
CRITICAL CONTROL SYSTEMS**

http://www.fas.org/irp/congress/2005_hr/scada.pdf

During review of the application, we have found that Enbridge intends to put fences around its sensitive sites, probably with “keep out signs”. That strategy seems a little lacking to us. After all, access to such a site would only take a battery powered disk grinder with a “zip” cut blade-readily and innocuously available at Canadian Tire. With this equipment access to a sensitive area would likely take only five minutes time.

The media almost daily identifies new and old terrorist groups. In some respects the lunatic fringe of the environmental movement worries us greatly. They may be lunatics, however many are brilliant with university degrees. As SCADA systems are usually internet accessible, would they have much difficulty in accessing the system? Could they, in their insane zeal decide to create a disaster and use it as a tool to shut down pipelines continent wide. We also wonder what a group could do if it was able to access USB and Serial ports from within a site as described above. As we said-they are lunatics- but to be taken seriously.

In closing we feel the application should be rejected. This due to the fact that any meaningful post spill action and control is not going to be possible in our area of expertise

We are convinced the best way for this panel to get a real sense or feel for this local area is to take a short tour. A drive along these local rivers would likely suffice. However a

float trip down the river(s) would really make our points clear. We can arrange that. It would also assist in depressuring from these meetings.

Is it planned for you to do on site inspections?

Thank you for your time

PRESENTATION BY THE NORTHERN BRANCH OF THE STEELHEAD SOCIETY OF BC
TO THE JOINT REVIEW PANEL ON THE PROCEDURAL DIRECTION
FOR THE ENBRIDGE NORTHERN GATEWAY PROJECT

National Energy Policy

There is no national energy policy in this country. In the absence of such a policy, Canadians have no idea of the future energy requirements of their nation, how the transition to cleaner, less environmentally destructive forms of energy will be accomplished, and what the timetable for that change is.

Since the process to create a national energy policy is urgent. It should be undertaken immediately and take in the concerns of the public through their elected representatives at all levels of government and include First Nations representation.

Recognizing the fact that the sale of oil is used to balance trade deficits, to provide funding for government programs, and to create employment, talks toward the development of a national energy plan would consider the long term effects of the current rate of extraction and whether the use of water and natural gas in the extraction of tar sands oil is prudent, or moral, within the context of a rapidly changing global climate.

The long term implications of shipping raw resources offshore and the effect of foreign ownership in the exploitation of Alberta tar sands would also figure prominently in the discussions.

The talks would have to address the effects the tar sands development has had, and will have, on the Dene peoples of Fort Chipewyan and surroundings. That done, they would have to deal with the effects of the development on regional and migratory wildlife and the present and future impact on the hydrological cycle of Alberta.

The discussion would have to encompass the current energy infrastructure and proposed additions to it. The words economy and ecology share the same root, *Oikos*, the Greek word for home. Recognizing that our home will not stand if our economic endeavours ignore ecosystems, one of the key components of the new national energy policy will be a rigorous cost/benefit analysis of new projects that includes environmental costs. Under such an accounting, wildlife and habitat losses, cultural and aesthetic costs and the carbon footprint of the entire project would be factored into the final determination of whether the Enbridge Gateway Project should proceed.

A national energy plan would not only deal with the Enbridge proposal specifically, but would examine it as part of the energy corridor it proposes to follow. The pros and cons of this corridor have had almost no discussion in public.

Since the way energy is produced and consumed may be greatly changed when a new national plan is achieved, there should be no increase in oil production and export during its formative stage.