

From: Kirsten Oravec [REDACTED]
Sent: Monday, December 10, 2012 3:33 PM
To: Young, Elizabeth
Cc: Kirsten Oravec
Subject: SEA Western NL Comments

Dear Ms. Young-

In regards to the update of the Strategic Environmental Assessment (SEA) for the Western NL Offshore Area I would like to submit the following:

What consultation session did you attend: Rocky Harbour, NL

Do you have any information about the existing environment in the area?

- * Pristine Sub-Arctic Marine Environment
- * Home to about 2000 species of marine life and migratory birds that use the waters of the gulf
- * for all intensive purposes the Gulf of St. Lawrence is an inland sea that has very little recharge with other bodies of water.
- * The main current of the Gulf of St. Lawrence is a large loop that passes by the shores of 5 provinces, and recirculates waters (and therefore, pollutants) throughout the gulf basin. Next to no recharge with other bodies of water.
- * Home to dozens of species of concern as well as species at risk.
- * The Gulf has been sustainably used by Humans for at least the past 12,000 years, and by European descendants for the past 500 years.
- * Presently 10,000s of peoples lives depend on either fishing or tourism in the five provinces that ring the gulf.
- * 100s of coastal villages economies are entirely dependent upon the Gulf for either fishery resources or tourism.
- * The impact of a large point source pollution event will circulate to affect all coastal communities in the five provinces;
- * the impact of a slow but continued point source pollution event (such as leaking fracking solutions or oils coming up fractures and faults in the subsea floor rock strata) will affect all the gulf due to the main current, and by extension, all the coastal communities of five provinces,
- * earthquakes associated with fracking can cause damage on land as well as small tsunamis that could affect the five provinces,
- * a large unsupported block of rock (thought to be ~1,000,000,000 cubic meters of rock- yes, one billion), undercut by glaciers is found at the mouth of Bonne Bay. A smallish earthquake caused by fracking (or stimulation) could possibly cause the collapse of this block and could lead to a tsunami causing unimagined damage and death in the communities that line Bonne Bay, as well as up and down the coast. (ref: Geol. Surv. Canada Misc. Report #54, 1990).
- * The annual economic windfall of the fishery alone in the Gulf of St. Lawrence is worth 1.5 billion to the five Gulf provinces.
- * Tourism in the five provinces that is linked directly to the Gulf of St.

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Lawrence is valued at 100s of millions of dollars annually.

* The gulf of St. Lawrence is a sub-arctic body of water. Oil spills are particularly devastating in them, because the oil in cold water bodies is released from the sands and gravels every spring. A test like this in a sub-Arctic body has already been done: the Gulf of Valdez (1989).

* Oil spills in small sub-Arctic bodies of marine water are particularly devastating. The extremely valuable commercial fishery found in the Gulf of Valdez was devastated, and has not returned to anywhere towards normal in 25 years.

* Diverse marine life and of particular import, the commercial species, have not returned in any number to the Gulf of Valdez.

* Tourism in the Gulf of Valdez was devastated and has not returned yet either.

* An oil spill or fracking leak will circulate through all of the gulf, repeatedly looping around to destroy or seriously impact the fisheries in five provinces.

* An oil spill/fracking leak could devastate tourism into the area.

* Cruise ship traffic would be impacted in the case of a spill or ongoing leak, particularly in the port of Corner Brook.

* Marine mammals will be particularly hard hit: this includes minke, humpbacks, belugas, porpoises, dolphins, blue whales, fin whales, sei whales, and the smaller marine mammals: seal, otters, minke, etc.

* Marine birds, including migratory marine birds that summer in the arctic, will be particularly hard hit.

* The shores of a World Heritage Site (Gros Morne National Park) would be fouled in the case of a spill, leading to less visitation;

* The shores of one of the most beautiful, important and popular national parks in eastern North America could be damaged.

* The shores and sight lines of a very valuable element to the economy of western NL would be damaged, and could cause a possibly serious drop in tourism.

* Cruise ship traffic could seriously be damaged for western NL by drilling, or even the views of drills from the salt water.

* Vertical and horizontal faults and fractures in the Green Point and Cow Head group formations could allow the seepage of oil and fracking solutions into the gulf where there is not a very deep layer of clastic material laid upon it. This is a concern particularly near shore where very little clastic material has been deposited, and glaciation has scoured the rocks.

Do you have any questions or comments regarding future petroleum activities in the region that you feel should be considered in the SEA Update?

What sort of environmental response capability is available on the west coast of NL?

How many kilometers of oil spill containment boom are located on the west coast of NL?

Where are the environmental response teams based?

How is the reporting system set up? Who reports, and where does that go to?

What is the turn around time for response on a spill in the Gulf?

What period of time is needed for an environmental response team to arrive to a spill site in the Gulf?

Will two twin wells be drilled before oil production can be initiated at the target of a well?

What are the implications of fracking at shallow depths below a marine environment? What are the principal faults found in the bed rock of the Gulf? How many of them are vertical / subvertical?

For the near shore properties of Shoal Point Energy how deep is the clastic material found above their targets? How much vertical and sub-vertical faulting is there above their targets?

Who is responsible for the clean up of an oil spill or fracking leak into the Gulf of St. Lawrence?

What are the dangers of fracking under a marine environment?

What toxic chemicals are used in fracking? What are their impact on marine life? What is the cumulative impact of fracking solutions in the marine environment of the Gulf?

Does that render economic marine species worthless when it accumulates in their bodies?

What are the health impacts upon children and adults who attempt to render aid in the case of an oil spill in a sub-arctic marine environment?

How does oil react in sub-arctic waters? Where is it deposited? Is it possible to clean it in an livelihoods responsible way that does not do more damage to people, marine life, and the Gulf?

What sort of economic support is offered to peoples whose livelihoods are destroyed by either a fracking leak or oil spill in the Gulf?

What sort of economic support is offered to communities?

What sort of economic support is offered to people whose health has been damaged due to oil spills or fracking leaks?

What sort of responsibility does the government and the oil companies have towards homeowners and communities in the case of an oil spill, fracking leak, or earthquake related to fracking?

Who bears the responsibility of clean-ups of oil spills, fracking leaks and earthquakes?

What sort of air borne pollutants are associated with oil and gas development?

What are the health impacts from these to human, marine and terrestrial species?

What percentage of local workers? What percentage workers are brought in from away?

Who bears the responsibility of remediation in these cases?

Who reaps the profits from this?

Who is presently financially responsible for the risks associated with oil and

gas exploration and development?

ARE THERE ANY SPECIFIC MEASURE STHAT YOU THINK COULD BE TAKEN IN RELATION TO POTENTIAL PETROLEUM ACTIVITIES IN THE REGION THAT WOULD HELP ADDRESS YOUR QUESTIONS OR COMMENTS?

- * The companies active in exploration and development, and exploitation and transport of oil, and NOT THE GOVERNMENT -i.e. us, the taxpayers- are responsible in perpetuity for all clean up and health affects financially.
- * They must put the funds necessary for a clean up (oh, lets say, 4 billion to start with) into escrow
- * They must put into escrow before development starts monies to support communities and workers affected by spills, leaks, etc.
- * they must fund, train, and hire environmental response teams that live in the immediate area to work.
- * They must buy and keep in good working order all equipment needed to respond to a disaster in a very timely and responsible way.
- * Companies involved are responsible in returning the work sites and the Gulf to their pristine environments after work ends.
- * they must not use toxic liquids, gels, gases, or new compounds that could impact the health of humans, livestock, marine life, birds, wildlife, nor impact groundwater or surface water while fracking;
- * the companies involved in fracking would be responsible for all health issue costs, environmental issues costs, and economic impact costs that result from fracking - for all the Gulf and associated coastal lands, because this is a dynamic system, not a landlocked system.

Do I have any comments about the Consultation Process:

AMEC's version was ... interesting. Did I learn anything at it? No.

1. Would like to see real and relevant information to the subject the subject of the meeting, the marine environment, the exploration targets and their geology, the environmental and health related impacts of fracking and oil spills in the real world of a sub-arctic Marine Basin, etc. presented at the consultations. How an off shore drill rig is engineered, or what a drill head looks like is irrelevant to the issues.
2. Seats for visitors.
3. Presentation by Board members as to what the issues are and the impact of oils & gas exploration and development are in marine environments.
4. Question and answer period.
5. Written material to help us understand the issues at hand and the the background to the projects and the environmental assesment.
6. Substantial lead up to the meeting; not a last second thing with very little advertisement.

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