Northern Gateway Pipelines Limited Partnership ("Northern Gateway")
Section 52 of the *National Energy Board Act*
Application for Enbridge Northern Gateway Project
NEB File No.: OF-Fac-Oil-N304-2010-01 01

Northern Gateway Information Request No. 1
To: Living Oceans Society

Dispersant Use		
1.1	**Reference:**	*Dispersant Use on Canada's Pacific Coast: Relevant factors and preliminary response gap analysis for the Enbridge Northern Gateway project area*, Living Oceans Society, 2011 (A2K1C1).
	Preamble:	The Living Oceans Society filed a report regarding the potential use of dispersants within the "Northern Gateway project area" with a view to highlight relevant factors and provide a preliminary response gap analysis.
	Request:	(a) Please confirm that neither Ms. Point nor Ms. Terhune have expertise or experience in emergency response planning. (b) Please confirm that dispersant use is only one of the response measures contemplated by Northern Gateway. (c) Please confirm that authorization from the Regional Environmental Emergency Team would need to be obtained for dispersant use, if it was to be utilized. (d) Is the Living Oceans Society opposed to the use of dispersants under all circumstances? If no, provide a detailed explanation of the circumstances in which Living Oceans Society would not oppose the use of dispersants. (e) Does the Living Oceans Society consider all dispersant types to be ineffective in low salinity waters? If no, provide a detailed explanation of the type of dispersant that Living Oceans Society considers to be effective in low salinity waters. (f) Does the Living Oceans Society consider dispersant use in cold waters to always be ineffective? If no, provide a detailed explanation of the circumstances in which Living Oceans Society would consider dispersant use in cold water to be effective.

Dispersant Use		
1.2	**Reference:**	*Dispersant Use on Canada's Pacific Coast: Relevant factors and preliminary response gap analysis for the Enbridge Northern Gateway project area*, Living Oceans Society, 2011, Appendix C pages 30-31 (adobe pages 30-31) (A2K1C1).
	Preamble:	The methodology of the referenced report adopted criteria, from separate response gap analyses undertaken by S.L. Ross Environmental Research and Nuka Research, to determine wind speeds and sea states commensurate with "response favourable" "response marginal" and "response not possible" conditions regarding the use of dispersants.
	Request:	Given the methodology used for the preliminary dispersant response gap analysis: (a) Should wave heights drop below 0.6 m, even for a short time, in any 48 hour period would dispersant use be considered in the analysis as either "impaired" or "ineffective"? (b) Should the correct use of the criterion identified in part (a) be: "if the wave height never reaches 0.6 m or greater in a 48 hour period dispersant use will be considered ineffective"? Please describe briefly how this may change the response gap percentages reported in the preliminary dispersant gap analysis.

Oil Physical Properties and Spill Response Preparedness		
1.3	**Reference:**	*A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project: Tanker Casualty Risk Reduction and Spill Response Preparedness*, EnviroEmerg Consulting, February 2011, page 90 (adobe page 53) (A2K1C0).
	Preamble:	In the Reference, diluted bitumen is identified as an "unconventional" product. Specific statements are made that "Northern Gateway's spill response preparedness focus is on conventional heavy-oil types." Conventional oil, in the same section of the report, is described as being from "drilled wells from which most of our spill response technologies and experiences currently reside." Northern Gateway continues to align its development of the Project's spill preparedness and response planning program with the findings of laboratory product testing and lessons learned from historical spills of diluted bitumen. While diluted bitumen spills have occurred in freshwater environments to draw from, as the report suggests, there is an absence of marine diluted spill to do so. While not disputing the validity of the statement that the majority of spill response technologies and experiences relate to products derived from drilled wells, Northern Gateway questions the underlying implication that diluted bitumens are new products for shipment both from and within Canada.
	Request:	(a) Please describe the Living Oceans Society's understanding of the current shipment of diluted bitumen through Canadian coastal waters. (b) Does the Living Oceans Society have any recommendations regarding the study of diluted bitumen spill behaviour in the marine environment, aside from laboratory studies and in the absence of data on historical diluted bitumen spills in the marine environment? If yes, please clarify these recommendations.

Socio-Economic Effects		
1.4	**Reference:**	(i) Written Evidence of Living Oceans Society, December 21, 2011, adobe page 15 (A2K1A7). (ii) *A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project: Tanker Casualty Risk Reduction and Spill Response Preparedness*, EnviroEmerg Consulting, February 2011, section 1.2.9, page 63 (adobe page 26) (A2K1C0). (iii) Northern Gateway Response to Coastal First Nation IR No. 1.2(f) (A2E4Q5).
	Preamble:	Reference (ii) states that: "The EIS does not commit Northern Gateway to go beyond effective spill response environmental impact mitigation, and to pay compensation to reduce and redress potentially significant social and cultural impacts to coastal communities from a large spill." This is described as a "substandard situation" as opposed to either a "Standard Practice" or "Best Available Practice". In Reference (iii), Northern Gateway stated that it is prepared to work with coastal communities, including Aboriginal communities, to develop a framework document that would identify methods and procedures, specific to the North Central coast of British Columbia, to mitigate potential socio-economic effects due to a spill. The mechanisms for preparing and reviewing the framework remain to be determined but include the Community Advisory Boards, bilateral arrangements between Northern Gateway and Aboriginal communities and, to the extent appropriate, the Fisheries Liaison Committee. These measures may include those described for the communities affected by the Exxon Valdez spill or other steps determined to be more appropriate for this region.
	Request:	(a) Please provide a detailed description, and examples, from other ports in Canada and elsewhere, of both Standard Practice and Best Available Practice for liquids terminal operators to address social and cultural impacts of spills from ships calling at such terminals. Include liquid terminal operations in Vancouver, Montreal, Halifax, Saint John, and Whiffenhead. (b) If there are no "Standard Practices" or "Best Available Practices" in place within industry today, please advise as to what EnviroEmerg Consulting would recommend for inclusion in the framework proposed by Northern Gateway, as described in Reference (iii). Also provide recommendations as to how such response measures might be included in periodic training and drill exercises.

Tanker Technology Report		
1.5	**Reference:**	*Tanker Technology Limitations of Double Hulls* by Living Oceans Society (A2K1C6).
	Preamble:	The acknowledgements in the referenced report (adobe page 2) state: "This report was made possible through the generous support of the Tar Sands Campaign Fund of Tides Foundation. Living Oceans Society would also like to thank Dave Shannon for his many valuable contributions and insights into the writing of this report." Further information is required regarding authorship and conclusions.
	Request:	(a) Who authored the referenced report? (b) Please describe how Mr. Dave Shannon contributed to the referenced report. (c) Please provide details regarding the Tar Sands Campaign Fund of Tides Foundation, including the amount of funding provided to Living Oceans Society for this and other studies related to the Northern Gateway Project; the process used to obtain funding, and the goals and objectives of the Tar Sands Campaign Fund generally.

Emergency Response Planning		
1.6	**Reference:**	*Preliminary Mechanical Response Gap Analysis for the Enbridge Northern Gateway Project* by Katie Terhune, Energy Campaign Manager at Living Oceans Society, page 27 (Adobe page 27) (A2K1C8).
	Preamble:	Living Oceans Society concludes that Enbridge Northern Gateway Pipelines should "commission a more comprehensive analysis, to be conducted by a reputable consulting firm such as Nuka Research and Planning Group, LLC."
	Request:	(a) According to the Living Oceans Society, what constitutes a "reputable consulting firm"? (b) If the Joint Review Panel were to require that a more comprehensive response gap analysis be performed prior to the commencement of operations, are there other firms that the Living Oceans Society would consider to be reputable? (i) Who are they?

Marine Navigation		
1.7	**Reference:**	EnviroEmerg Consulting, February 2011: A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project Tanker Casualty Risk Reduction and Spill Response Preparedness (A2K1A9).
	Preamble:	The evidence states (at page 6) that "[t]he use of this report and its findings are left to the discretion of Living Oceans Society" to decide if appropriate levels of tanker vessel casualty risk reduction and spill preparedness are being proposed in the proponent's EIS . . .".
	Request:	Does Mr. Reid consider that the Application is proposing appropriate levels of tanker vessel casualty risk reduction? Please fully explain your answer.

Marine Navigation		
1.8	**Reference:**	EnviroEmerg Consulting, February 2011: A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project Tanker Casualty Risk Reduction and Spill Response Preparedness (A2K1A9).
	Preamble:	The evidence asserts (at page 7) that navigational risks are high in the central and northern coastal regions of British Columbia. Northern Gateway seeks to understand this assertion and the basis therefor.
	Request:	(a) Please provide a detailed description of Mr. Reid's experience and expertise, if any, in assessing navigational risks whether in absolute or comparative terms. (b) Please provide a detailed explanation of the basis for the assertion that navigational risks are high in the central and northern coastal regions of British Columbia.

Marine Navigation		
1.9	**Reference:**	EnviroEmerg Consulting, February 2011: A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project Tanker Casualty Risk Reduction and Spill Response Preparedness (A2K1A9).
	Preamble:	The evidence asserts (at page 10) that ". . . [t]he CCAA contains challenging waters for major vessels to navigate due to currents and confined passages". Northern Gateway seeks to understand these assertions and the basis therefor.
	Request:	(a) Please provide a detailed description of Mr. Reid's experience and expertise, if any, in assessing the navigability of ocean routes. (b) What is meant by the expression "major vessels" as that expression appears in the portion of the evidence referenced in the preamble? (c) Please provide scientific data that would describe and confirm what is meant by "challenging waters" as that expression appears in the portion of the evidence referenced in the preamble.

Marine Navigation		
1.10	**Reference:**	EnviroEmerg Consulting, February 2011: A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project Tanker Casualty Risk Reduction and Spill Response Preparedness (A2K1A9).
	Preamble:	The evidence states (at footnote 18) that the ". . . original causal chain has been modified slightly for use in this report".
	Request:	Please provide a detailed description of modifications made to the "original causal chain".

Marine Navigation		
1.11	**Reference:**	EnviroEmerg Consulting, February 2011: A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project Tanker Casualty Risk Reduction and Spill Response Preparedness (A2K1A9).
	Preamble:	The evidence asserts (at page 27) that ". . . A field test is a humbling experience for an escort tug captain and crew as their tug is dragged by a tethered tanker". Northern Gateway seeks to understand these assertions and the basis therefor.
	Request:	Please provide a detailed description of Mr. Reid's experience, if any, with escort tug field tests. Include in the response, the date, location and relevant vessel descriptions in respect of each escort tug field test in which Mr. Reid has participated and confirm in what capacity Mr. Reid participated (e.g. tug captain, member of crew, observer) in each case.

Marine Navigation		
1.12	**Reference:**	Written Evidence of Living Oceans Society (A2K1A7) Living Oceans Society: Tanker Technology Limitations of Double Hulls (A2K1C6) ("Double Hull Report").
	Preamble:	The Written Evidence of Living Oceans Society asserts (at page 33, paragraph 79) that the Double Hull Report (A2K1C6) ". . . is based on publically available documents (including peer reviewed articles and grey literature) written by parties independent of Living Oceans Society". The Double Hull Report includes a bibliography (at page 21). Northern Gateway seeks further information regarding the Double Hull Report including in respect of the literature cited in the Double Hull Report.
	Request:	(a) Please confirm that the author of the Double Hull Report, Katie Terhune, has no personal experience or expertise regarding the matters addressed in the Double Hull Report. (b) Please provide a complete explanation of what is meant by "grey literature"? (c) Please confirm that the bibliography in the Double Hull Report lists all literature that serves as a basis for the Double Hull Report. If such confirmation cannot be provided, please provide a bibliography that lists all literature that serves as a basis for the Double Hull Report. (d) Please provide a table that categorizes, as either "grey literature" or peer reviewed, each piece of literature that serves as a basis for the Double Hull Report. (e) For each piece of literature categorized as peer reviewed in the response to (d) above, provide a complete citation for each peer review.