MEMORANDUM – NOTE DE SERVICE

To: Darren Hicks

From: Jerry Pulchan

Date: 23 August 2012

Subject: Multi Klient Invest AS - Northeast Newfoundland Slope Seismic Program 2012-2017, Environment Canada's comments concerning proponent's response (25 July 2012) to EA review

Darren,

Environment Canada's Canadian Wildlife Service of Environment Canada (EC-CWS) and Environmental Protection Division (EPOD) have reviewed MKI's EA report for the above project and MKI's response to Environment Canada's comments. We offer the following comments:

General Comments

EC-General-01
The proponent implied throughout their reply that the submitted environmental assessment document was superior to those submitted by other companies in previous environmental assessments. The proponent should be advised that EC-CWS will not comment upon the comparative merits of environmental assessment reports prepared by different companies. Further, information requested by EC-CWS is done on a case by case basis within the scope and context of each project. It is expected that any EA report should be a stand-alone document.

EC-General-02
The proponent has not adequately responded to information requests throughout the document. As previously indicated, further details concerning migratory birds and species at risk are required to properly assess the effects of the project on the environment. In addition, the proponent did not respond to specific comments from EC (please see highlighted sections of accompanying attachment).

EC-General-03
The proponent should be advised that information generated from previous environmental assessments and strategic environmental assessments should be evaluated within the context of the current project in addition to being cited. Simply citing a reference does not provide for any context to evaluate the current project. Furthermore, the original research with which the previous environmental assessment used to draw its conclusions should be also be provided for context and appropriately cited.

Specific Comments

EC-01, Page 10, Section 2.4.1.1 Shipboard Oil Pollution Emergency Plan:
The proponent has not adequately responded. For example, the proponent did not explain the following statement: "*Used correctly in a given situation, you and we as ship operator will, avoid*

any claims and responsibility from official authorities".

EC -02, Page 10-11, Section 2.6 Potential Malfunctions and Accidental Events Paragraph 1:
The proponent's response is inadequate. EC did not request an inventory of hydrocarbons and the statement that **"***the marine engineers at C-NLOPB will be familiar with engine room petroleum products and their quantities"* is out of context with regard to EC's comments.

To re-iterate an earlier point, EC does not regard any previous EA review as a "benchmark". Hence the statement by the proponent – "*the same information has been provided in other EAs with no concern"* - is unacceptable.

EC-03, Page 24, Section 4.2.1 Identification of Valued Environmental Components, Table 4.1 Selection of Valued Ecosystem Components:
This response is acceptable.

EC-04, Page 69, Section 5.4.3 Marine and Migratory Birds, First Paragraph:
See general comments above. EC-CWS recommends that information from the sources cited be evaluated with the context of the current project in this section.

EC-05, Page 69, Section 5.4.3 Marine and Migratory Birds, Third Paragraph:
While Fifield et al. 2009 can be cited for the specific numbers given in the environmental assessment document, the Gjerdrum et al. 2011 citation , (Eastern Canada Seabirds at Sea (ECSAS) program) should be referenced. This document is the primary and most up-to-date reference that describes the ECSAS program. This document was provided to the proponent in June 2012, and can be provided again if necessary. The following reference should be appended to the first mention of the ECSAS program in the environmental assessment document:

Gjerdrum, C., D.A. Fifield, and S.I. Wilhelm. 2011. Eastern Canada Seabirds at Sea (ECSAS) standardized protocol for pelagic seabird surveys from moving and stationary platforms. Canadian Wildlife Service Technical Report Series No. 515. Atlantic Region. vi + 36 pp.

EC-06, Page 69, Section 5.4.3.1 Distribution:
This response is acceptable. EC-CWS has no further comment.

EC-07, Page 70, Section 5.4.3.1 Distribution, Table 5.3 Sea Bird Hotspot Summary:
This response is acceptable, providing the names of the bird species are updated in the text.

EC-08, Page 72, Section 5.4.3.1 Distribution, Table 5.4 Distribution and Abundance of Seabirds Known to Occur in the Study Area:
The environmental assessment should use the most up-to-date information available. The name of the "Great Shearwater" was updated in 2010 (see Chesser et al. 2010), and should be used throughout the document. As such the use of "Greater Shearwater" should be replaced with "Great Shearwater" even when referencing dated documents. A simple footnote in the document could be used to explain any discrepancy with the dated documents.

Chesser, R.T., Banks, R.C., Barker, F.K., Cicero, C., Dunn, J.L., Kratter, A.W., Lovette, I.J., Rasmussen, P.C., Remson, J.V. Jr., Rising, J.D., Stotz, D.F., and K. Winker (2010) Fifty-first supplement to the American Ornithologist's Union check-list of North American Birds. The Auk 127(3):726−744

EC-09, Page 74, Section 5.4.3.1.1 Waterbirds:
This response is acceptable, provided the indicated changes are made in the text.

EC-10, Page 74, Section 5.4.3.1.1 Waterbirds, Figures 5.23- 5.42:
To increase clarity in the environmental assessment, in-text figure references regarding densities should be appropriately located where the given densities are mentioned in the text.

EC-11, Page 74, Section 5.4.3.1.1 Waterbirds – Northern Fulmar (etc.):
This response is acceptable, provided the indicated changes are made in the text.

EC-12, Page 95, Section 5.4.3.2 Prey and Foraging Habits:
The proposed statement of clarity is acceptable, provided the indicated change is made in the text.

EC-13, Page 135, Section 5.4.7.1 Marine and Migratory Birds, Table 5.19 Marine & Migratory Species Found Within The Study Area Having SAR and/or COSEWIC Designations - Ivory Gull:
Table 5.19 of the environmental assessment document incorrectly reports that Ivory Gull nest in the Caribbean Sea and the southeastern United States. The proponent should be directed to COSEWIC 2006 for more accurate breeding information concerning Ivory Gull, for incorporation into the revised environmental assessment. The citation for this report is as follows:

COSEWIC 2006. COSEWIC assessment and update status report on the Ivory Gull *Pagophila eburnea* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 42 pp. (http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=1000).

EC-14, Page 179, Section 6.1.3 Significance Criteria:
The following recommendations are editorial changes:

"*Destruction or adverse effects of critical habitat*" should be replaced with "*destruction or adverse effects on critical habitat*". The former sentence implies that critical habitat causes destruction.

"*An adverse, but not significant effect on marine birds and migratory is one that is likely to cause*" should be changed to "*An adverse, but not significant effect on marine and migratory birds is one that is likely to cause*". "Migratory" is an adjective, and should be used in conjunction with a noun.

EC-15, Page 180, Section 6.1.4.1.3 Attraction to Lights:
This response is acceptable. EC-CWS has no further comments.

EC-16, Page 181, Section 6.1.4.1.3 Attraction to Lights, First Paragraph:
This response is acceptable, so long as the indicated clarification is added to the text.

EC-17, Page 181, Section 6.1.4.1.3 Attraction to Lights, Second Paragraph
Migratory bird mortality events are a known problem when exterior lights and/or substation lights are kept illuminated at night in the marine environment. Attraction to lights may result in collision with lit structures or their support structures, nearby unlit structures, or with other birds. In Atlantic Canada, birds migrating at night and night-flying seabirds (e.g. storm petrels) are more likely to be attracted to lights, with risk of mortality greater during periods of fog or inclement weather.

The effects of light attraction by this project must be monitored. Reports of bird strandings and collisions are required to assess mortality and must be reported to EC-CWS.

EC-18, Page 181, Section 6.1.4.1.3 Attraction to Lights, Second Paragraph:
EC-CWS notes that the proponent has stated that the recommended 30-minute ramping-up period will be undertaken as a mitigation procedure for this project, and has no further comments.

EC-19, Page 182, Section 6.1.4.3 Vessel Discharge and Accidental Events, Second Paragraph:
This response is acceptable, so long as the indicated clarifications are added to the text. It should be noted that though oil spills of any size are not expected in this project, proponents are required to demonstrate response preparedness and to identify provisions for ensuring measures are implemented to eliminate or minimize resulting sheens or slicks in the event of accidents and malfunctions involving the release of oil. See also requirement for this in comment above for EC-01.

EC-20, Page 182, Section 6.1.4.3 Vessel Discharge and Accidental Events, Third Paragraph:
This response is acceptable. EC-CWS has no further comments.

EC-21, Page 183, Section 6.1.4.4 Monitoring and Follow-up:
This response is acceptable. EC-CWS has no further comments.

EC-22, Page 183, Section 6.1.4.4 Monitoring and Follow-up:
This response is acceptable. EC-CWS has no further comments.

EC-23, Page 183, Section 6.1.4.4 Monitoring and Follow-up, Table 6.1: Summary of Environmental Assessment for Marine and Migratory Birds (Interactions and Issues):
The proponent should be advised that bird mortalities due to collisions are possible during this project, regardless of their likelihood, and that this effect is in addition to normal disturbance from vessel noise and lights. As the proponent feels that the statement of "Disturbance and death from collisions due to vessel noise and lights" is excessive, EC-CWS recommends that the sentence be changed to "Disturbance and collisions with the vessel due to vessel noise and lights".

EC-24, Page 183, Section 6.1.4.4 Monitoring and Follow-up, Table 6.1: Summary of Environmental Assessment for Marine and Migratory Birds (Impact Analysis):
See EC-16.

EC-25, Page 183, Section 6.1.4.5 Table 6.1 Summary of Environmental Assessment for Marine and Migratory Birds (Mitigation):
EC's point is that it is unclear how certain items in the bulleted list of the EA document can be considered as mitigation. The proponent's response – "*CWS has never requested this documentation in previous EAs nor requested it for inclusion during the FEAC process"* – is unacceptable.

EC-26, Page 201, Section 6.2.4.2.5 Page 201, paragraph 4:
This response is acceptable (provided that Eastern Canadian Response Corporation and the DNV approved Shipboard Oil Pollution Emergency Plan deals with mitigation measures to minimize the impact of seismic operations on fish spawning). However, the response indicates that the statement in the EA document – "*An Emergency Spill Response Plan will be developed and implemented when required"* – is incorrect.

EC-27, Page 224, Section 6.5.4 Effects Assessment:
This response is acceptable, provided the indicated explanation is made in the text.

EC-28, Page 224, Section 6.5.4.1 Marine and Migratory Bird Species at Risk:
EC-CWS has no further comments.

Please do not hesitate to contact me should you have any questions regarding our comments.

Sincerely,

[redacted]

Jerry Pulchan