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BAB 3990-20

JUN 06 2012

D. Hicks
Dennis Hicks
Environmental Analyst
Canada-Newfoundland and Labrador Offshore Petroleum Board
140 Water St., 4th Floor
St. John's, NL A1C 6H6

Dear Mr. Hicks

Subject: DFO Review – Environmental Assessment of Multi Klient Invest AS Northeast Newfoundland Slope 2-D Seismic Survey Programme 2012-2017.

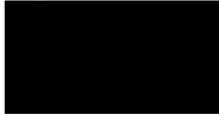
As requested, DFO has completed a review of the document entitled "Environmental Assessment Northeast Newfoundland Slope 2-D Seismic Survey Programme 2012-2017," dated April 2012, and offer the following general comments. Specific comments are provided in the attachment.

- Active project-based environmental assessments (EA) available on the C-NLOPB website are being repeatedly cited for this EA. This is unsuitable given the draft status of these documents and the likelihood of re-citing misinformation into the document currently under review. Citing secondary publications (e.g., LGL 2003) rather than primary publications in the EA is not encouraged. There are many instances where references for statements concerning species/biology are attributed to consultant reports (e.g., LGL (2003)), rather than the original research. Original citations should be provided where possible.
- The "Statement of Canadian Practice with respect to the Mitigation of Seismic Sound in the Marine Environment" (SOCP), specifies the mitigation requirements that must be met during the planning and conduct of marine seismic surveys, in order to minimize impacts on life in the oceans. These requirements are set out as minimum standards to be implemented during the planning and conduct of seismic programs. As such, it is advised that the proponent **adhere to all relevant minimum mitigations** outlined in the SOCP including the Planning Seismic Surveys, Safety Zone and Start-up, Shut-down of Air Source Array(s), Line Changes and Maintenance Shut-downs, Operations in Low Visibility and Additional Mitigative Measures and Modifications sections of the SOCP.
- The report indicates that surveys may occur May to November 2012-17 with surveys ranging in duration from 50 - 150 days. While the proponent does acknowledge that Species at Risk Act (SARA) requirements could change over this timeframe and that they will reassess accordingly, DFO would like to note that changes to the SARA could include additions to species on Schedule 1 of SARA, changes in species status, new recovery strategies, action plans and/or management plans and identification of critical habitat. Please continue to refer to the Species at Risk Public Registry (www.sararegistry.gc.ca) to get the most up to date information.
- Marine Mammal Observers (MMO) are noted throughout the document, however, details with respect to MMO protocols employed are not provided. It is suggested that the role of the MMO be better described within the EA Report to ensure reviewers that the best possible methods will be employed.

- DFO conducts scientific surveys in the general area of the proposed program. The timing of the DFO scientific surveys will vary from year to year; therefore the proponent should contact DFO to ensure there are no timing conflicts.

Thank you for providing DFO the opportunity to comment on this document. Should you have any questions or comments regarding the above, you can contact me by phone at 772-2568 or by e-mail (Lisa.Noble@dfo-mpo.gc.ca).

Regards



Lisa Noble
Environmental Analyst
Environmental Assessment & Major Projects
Ecosystem Management Branch

cc: Shawna Powell

Attachment:
Detailed DFO Comments on MKI NE NL Slope Seismic Survey Programme Environmental
Assessment

**Attachment 1: Detailed DFO Comments on MKI NE NL Slope Seismic Survey Programme
Environmental Assessment**

Section	Comment
2.2 Project Overview	Page 6, Table 2.1: It would be helpful if the airgun array operating value was also provided in the same units as the CEAA trigger (kPa).
5.1 Marine Physical Setting	Page 32, Figure 5: The Figure should show the Labrador Basin and the Labrador Current as referenced.
5.4 Ocean Resources	<p>Page 104 (Skates): More explanation and a primary literature reference should be provided for the following statement, "...distribution and densities within these areas (NAFO Div. 3LN) are diminishing".</p> <p>Table 5.16, Table 5.17, and Table 5.18: There are inconsistencies between COSEWIC designations and the text. The COSEWIC designated populations and the most recent designations need to be cross-referenced and the most recent information sources referenced (e.g., Atlantic Cod Science Advisory Report (2011/026), Can. Sci. Advis. Sec. Proceed. Ser. 2010/053; Blue Whale, Atlantic Population – Recovery Strategy, Feb 2012).</p>
5.4.4 Marine Fish and Shellfish	<p>Species distribution maps from 1998-2000 survey data are outdated. Current distribution maps of fish species could be generated from recent DFO Spring and Autumn RV survey data which is available from DFO upon request.</p> <p>Page 98: The study area covers a section of 3N, therefore 3NO cod should be included.</p> <p>Page 100: The description of American plaice should incorporate discussion of Morgan (2001, J. Northw. Atl. Fish. Sci., Vol. 29, p41-49).</p> <p>Page 104: "...The Atlantic population of the deepwater redfish is designated as threatened under COSEWIC..." There are two species of redfish that would reside within the study area but only the deepwater redfish is mentioned (Acadian redfish is not included).</p> <p>Page 128: A primary reference should be identified for the following statement, "Wolffish and roughhead grenadier, amongst other species are known to use this EBSA and it is an important area for the reproduction and survival of striped wolffish (CPAWS 2009)".</p>
5.4.6. Species at Risk	Page 131: Reference to Figure 5.52 showing the VMEs and EBSAs within the Study Area would be helpful.
5.4.7 Sea Turtles	Page 134: The Leatherback turtle/Southeast Shoal EBSA discussion should include a reference to a Figure 5.52.

5.4.8 Sensitive Areas	<p>Page 136: Establishing Areas of Interest or Marine Protected Areas are not the only management options for EBSAs. Additional EBSA management models should be incorporated in the discussion. The Southern Newfoundland Strategic Environmental Assessment (http://www.cnlopb.nl.ca/pdfs/snsea/snseaapp1.pdf) would facilitate this discussion.</p> <p>Page 142: A Total Allowable Catch (TAC) has been re-established for Redfish in 3LN and is therefore not a NAOF Fishing Closure.</p>
5.5.1. Commercial Fisheries	<p>Nearshore and offshore fleets harvest different species and have different requirements (i.e., fishing patterns). Separate information for each of these fleets should be provided, including the number of vessels and relative species dependency.</p> <p>In order to benchmark the value of the fishery in the study area, the average landed value per species over the 2005-2010 period should be provided.</p> <p>The source, location and date of any data file used should be provided for verification.</p> <p>Page 167: The source of following statement should be identified, "...An annual survey review document is produced to summarize the results of the survey and is provided to Fisheries Management to assist them in deciding which stocks require a more complete assessment."</p> <p>Page 162: The statement, "However, concerns for over-fishing have reduced the quotas in the last two years." is inaccurate. While there was a biomass reduction, the cause was not identified as over-fishing by DFO or NAFO.</p> <p>Table 5.22: The figures for SFA 7 should be 18,325 t for 06/07 and 15,994 t for 10/11.</p>
6.2 Marine Finfish and Shellfish	<p>Page 185: Reference should be provided for the following statements:</p> <p>"...recent concerns expressed by Newfoundland fishers on their observation or harvest results following seismic programs in 2011."</p> <p>"...The effects of intense and potential harmful sound on fish hearing and behaviour are poorly understood. Such noise may disturb fish and may produce temporary or permanent hearing impairment in some individuals, but is unlikely to cause death or life threatening injury."</p>
6.3 Marine Mammals	<p>Page 205: Mortality or life-threatening injury to individuals of a species at risk should be an independent significance criteria for marine mammals as it is for marine fish</p>
6.4 Sea Turtles	<p>Page 217: Define "short" and "long-term" displacement from preferred or critical habitat by sea turtles.</p>

6.5 Species at Risk	<p>Page 226: The statement, "...There are no recovery potential assessment or recovery strategies finalized or developed yet for roughhead or roundnose grenadier" is inaccurate. A recovery potential assessment was conducted for roundnose grenadier in 2010 (DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/021).</p> <p>Page 226: There are Recovery Potential Assessment documents now available (CSAS) for Roundnose Grenadier, Acadian and Deepwater Redfish And Atlantic Bluefin Tuna.</p> <p>Page 234: MKI has committed to plan the survey lines for each annual survey "to avoid the EBSAs in May to July as per each EBSA specific sensitive species, until spawning has ceased." Although DFO is pleased with this measure, it is unclear whether it also applies to the Bonavista Cod Box.</p>
6.8 Commercial Fisheries and RV Surveys	<p>Page 238: There is a spring multi-species bottom trawl survey in NAFO Divs. 3PsnLNO and autumn multi-species survey in NAFO Divs. 2H – 3O.</p>
8.0 Cumulative Effects	<p>Page 246: The reference to the Joint Review Panel for the Express Pipeline Project in Alberta is a case study. The cumulative effects assessment (e.g., CEEA CEA Practitioners Guide) for a single project should do the following:</p> <ol style="list-style-type: none"> 1. Determine if the project will have an effect on a VEC. 2. If such an effect can be demonstrated, determine if the incremental effect acts cumulatively with the effects of other actions, either past, existing or future. 3. Determine if the effect of the project, in combination with the other effects, may cause a significant change now or in the future in the characteristics of the VEC after the application of mitigation for that project. <p>http://www.ceaa-acee.gc.ca/43952694-0363-4B1E-B2B3-47365FAF1ED7/Cumulative_Effects_Assessment_Practitioners_Guide.pdf</p> <p>A CEA should examine the effects on each VEC until the incremental contribution of all activities and of the project (total cumulative effect), is understood. Based on this it is recommended that a summary table of environmental effects should be completed for each VEC (e.g., Table 6. 12, Page 243).</p>
8.2 Marine Fish	<p>Page 253: Exposure to low-frequency ship noise may be associated with chronic stress in whales. If available, please incorporate: Rolland, R.M., Parks, S.E., Hunt, K.E., Castellote, M., Corkeron, P.J., Nowacek, D.P., Wasser, S.K., and Kraus, S.D. 2012. Evidence that ship noise increases stress in right whales. Proceedings of the Royal Society B: Biological Sciences (In press.)</p>
8.3 Ocean Resource Users	<p>Page 250: The statement, "In the event of another seismic survey being conducted in the vicinity within the proposed timeframe, a significant distance between surveys will be necessary to prevent both operational conflict and acoustic interference." "A significant distance", should be given a numerical value.</p>
9.2 Conclusions / Executive Summary	<p>The executive summary concludes; "With the application of mitigative measures, this environmental assessment predicts that potential adverse environmental effects on the above VECs will not be adversely significant because the potential extent of physically harmful sound levels on fish occurs within 20 m or less of the air gun source. No other marine species is expected or known to experience</p>

	<p>physical harm by these seismic surveys."</p> <p>Similarly, the summary of environmental assessment for marine fish and shellfish states: "Although there are few studies on the effects of seismic surveys on specific fish species in Newfoundland waters, research studies show that mortality or serious injury is unlikely beyond a distance of approximately 2 m from the sound source."</p> <p>These statements are based on limited (one to three airguns) studies to investigate mortality or overt pathological effects. These statements should acknowledge the knowledge gap with respect to recent studies on distance-effect relationships as well as physiological effects of sound on fish and shellfish.</p>
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