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Environmental Assessment and Marine Programs
Environmental Protection Operations Directorate - Atlantic
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28 November 2014

Mr. Darren Hicks
Canada Newfoundland Offshore Petroleum Board
Fifth Floor, TD Place
140 Water Street
St. John's, NF A1C 6H6

Dear Mr. Hicks:

**RE: Bridgeport Holdings Ltd. and JEBCO Seismic Company EAS 2014-089
North Flemish Pass Gravity Survey, 2015 to 2019**

As requested in your letter of 17 November 2014, Environment Canada (EC) has reviewed the draft Scoping Document and Project Description for a multi-year (2015 to 2019) Non-Exclusive Geophysical program offshore Newfoundland and Labrador (Flemish Pass Area) proposed by Bridgeport Holdings Ltd. (Bridgeport) and JEBCO Seismic (Canada) Co. (JEBCO).

The primary objective of the project is to determine the presence and likely locations of geological structures which may contain hydrocarbon deposits. Gravity data will be acquired from a fixed wing aircraft via a gravity meter (GT gravity technology or a ZLS Meter); magnetic measurements will be acquired by three sensors at the wing-tips and tail boom of the aircraft. The proposed project (2015-2019) will consist of approximately 472,000 km² of data collection; approximately 120,000 km² of data collection will occur between March and November 2015.

Environment Canada is responsible for administering several statutes including the *Department of Environment Act*, *Fisheries Act* (Section 36), *Canadian Environmental Protection Act*, *Canada Water Act*, *Canada Wildlife Act* and the *Migratory Birds Convention Act*, which are focused on promoting sustainable development, protecting the environment, conserving certain renewable resources and reporting on environmental conditions. Stemming from these responsibilities, EC possesses expertise relevant to this proposal that should be considered by any Responsible Authority, in conducting the environmental assessment (EA). The following comments are for your consideration in the screening of this project.

REVIEW COMMENTS

Regulatory Requirements

Fisheries Act

The proponent should be aware of the general applicability of Section 36(3) of the *Fisheries Act* which states: "no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substances or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water". Environmental protection and mitigation measures

should reflect the need to comply with Section 36(3) of the Fisheries Act. For example, measures should be taken to prevent substances such as lubricating fluids, fuels, etc. from being deposited into water frequented by fish, and drainage from construction and operational drainage must not be harmful to fish.

Migratory Birds Convention Act

Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). Migratory birds protected by the MBCA generally include all seabirds except cormorants and pelicans, all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles). Most of these birds are specifically named in the Environment Canada (EC) publication, *Birds Protected in Canada under the Migratory Birds Convention Act*, Canadian Wildlife Service Occasional Paper No. 1.

Under Section 6 of the *Migratory Bird Regulations* (MBR), it is forbidden to disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities.

Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

- “5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
- (2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities are managed so as to ensure compliance with the MBCA and associated regulations.

Species at Risk Act

The responsible authority must be reminded that the *Species at Risk Act* (SARA) amends the definition of “environmental effect” in subsection 2(1) of the *Canadian Environmental Assessment Act* (CEAA) to clarify, for greater certainty, that environmental assessments must always consider impacts on a listed wildlife species, its critical habitat or the residences of individuals of that species.

SARA also requires that the person responsible for a federal EA must, without delay, notify the competent minister(s) in writing if the project being assessed is likely to affect a listed wildlife species or its critical habitat. Notification is required for all effects, including adverse and beneficial effects, and the requirement to notify is independent of the significance of the likely effect. The person must also identify adverse effects of the project on listed species and their critical habitat. If the project is implemented, the person must ensure that measures are taken to avoid or lessen adverse effects and that effects are monitored. Mitigation measures must be consistent with recovery strategies and action plans for the species.

The complete text of SARA, including prohibitions, is available at www.sararegistry.gc.ca. For guidance on SARA and EA, the proponents may wish to make use of the *Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada* available at: http://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202004.pdf

Canadian Environmental Protection Act

The proponent should also be aware of the potential applicability of the *Canadian Environmental Protection Act* (CEPA). The *Canadian Environmental Protection Act* enables protection of the environment, and human life and health, through the establishment of environmental quality objectives, guidelines and codes of practice, and the regulation of toxic substances, emissions and discharges from federal facilities, international air pollution, and disposal at sea.

Migratory Birds & Species at Risk

The Canadian Wildlife Service of Environment Canada (EC-CWS) has reviewed the above project and has the following comments.

Considerations Specific to Migratory Birds

Migratory birds, their eggs, nests, and young are protected under the federal *Migratory Birds Convention Act* (MBCA) and the complementary regulations (*Migratory Bird Regulations*, *Migratory Bird Sanctuary Regulations*). Certain species are recognized to be at risk under the federal *Species at Risk Act* (SARA), provincial endangered species legislation, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), or by the Atlantic Canada Conservation Data Centre.

In conducting the environmental assessment (EA), the vulnerability of individual species/groups of migratory birds to gravity programs must reflect a consideration of the following basic factors:

- distribution and abundance of species during scheduled project activities;
- impact pathways;
- mitigation;
- cumulative effects; and
- provisions for follow-up on assessment accuracy and mitigation effectiveness.

The following impact pathways influencing migratory birds must be considered in the analysis of any gravity survey:

- noise disturbance from equipment including both direct effects (physiological), or indirect effects (foraging behaviour or prey species);
- physical displacement as a result of aircraft presence (e.g., disruption of foraging activities);
- nocturnal disturbance from light (e.g., increased opportunities for predators, attraction to aircraft and subsequent collision, disruption of incubation);
- exposure to contaminants from accidental spills (e.g., fuel, oils)

Considerations Specific to Species at Risk

If a migratory bird species is listed under Schedule 1 of SARA and could be affected by operations, steps must be taken to ensure compliance with both SARA and the *Canadian Environmental Assessment Act* (CEAA).

The **Ivory Gull** (*Pagophila eburnean*) is listed as Endangered (Schedule 1) under SARA. The Ivory Gull is usually associated with pack ice and may be found in the project area during winter months. This species must be considered in the environmental assessment.

Cumulative Effects Assessment to be included in the EA

The discussion of cumulative effects must be shaped primarily by the valued ecosystem components under consideration. While an accounting of past, present and future projects and activities is a starting point in a cumulative effects assessment, the analysis must consider how impacts from the proposed project will combine with impacts from other projects and activities. In the context of marine birds, for example, the proponent must consider how the project will contribute to existing impacts (e.g., increase in predation, loss of foraging habitat) on birds from other activities (e.g., oil and gas activities, fishing, shipping).

Information Sources to be included in the EA

The proponent should be aware of Environment Canada's Eastern Canadian Seabirds at Sea (ECSAS) program. This program has conducted over 4000 surveys covering 7800 km of ocean track in the Newfoundland and Labrador offshore area since 2006. The most up-to-date data for the study area must be included in the EA. This information is available by contacting Carina Gjerdrum (EC-CWS) at carina.gjerdrum@ec.gc.ca.

The ECSAS program can be cited as follow: 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.

While an EA may conclude that the overall impact of a seabed survey on seabirds is relatively small, it remains important that the opportunity for this activity to impact federally-protected avian species be properly acknowledged in the EA. Accordingly, it is also expected that the proponent commit to all reasonable measures to mitigate the potential for such impacts to occur. These measures are outlined below.

Mitigations

Mitigation measures related to adverse effects, including cumulative effects, must be identified. Measures must be consistent with the MBCA and SARA and with applicable management plans, recovery strategies and action plans. Mitigation must reflect a clear priority on impact avoidance opportunities.

Data Collection

In order to better characterize migratory bird populations in the region in case of emergency situations, EC-CWS recommends that all projects in the area contribute to pelagic seabird monitoring. Though not a condition of permitting, EC-CWS would appreciate being notified of any opportunities to place an onboard observer on an aircraft, or for opportunities for the installation of automated survey equipment. Please contact EC-CWS for further information concerning migratory bird surveys.

Effects of Accidents and Malfunctions

The mandatory assessment of environmental effects that result from accidents and malfunctions should include a consideration of potential spill events. The assessment should be guided by the need to ensure compliance with the general prohibitions against the deposit of a deleterious substance into waters frequented by fish (Section 36, *Fisheries Act*) and against the deposit of

oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds (Section 35, Migratory Birds Regulations). In addition, it should be focused on potential worst-case scenarios (e.g., concentrations of marine birds, presence of wildlife at risk). Based on this analysis, the environmental review should describe the precautions that will be taken and the contingency measures that will be implemented to avoid or reduce the identified impacts.

Proponents are encouraged to prepare contingency plans that reflect a consideration of potential accidents and malfunctions and that take into account site-specific conditions and sensitivities. The Canadian Standards Association publication, *Emergency Preparedness and Response*, CAN/CSA-Z731-03, is a useful reference.

All spills or leaks of petroleum or other hazardous materials, including those from machinery, fuel tanks or streamers, should be promptly contained, cleaned-up and reported to the 24-hour environmental emergencies reporting system (St. John's 709-772-2083; other areas 1-800-563-9089).

I trust that this information will be of assistance in your review of this proposal. If you wish to discuss these comments or have further questions, please do not hesitate to contact me at your convenience.

Yours truly,



Environmental Assessment Analyst
Environmental Protection Operations Directorate

Attachments

Cc: 