REVIEW COMMENTS

Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB)

The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) has made the decision to shorten the temporal scope of geophysical/geological environmental assessments (EAs) to six years to become more aligned with Period I of an exploration licence and to limit the southern boundary of the spatial scope of EAs in the Labrador Shelf offshore area to 52 degrees north. Based on this decision, the temporal scope of this project has been shortened by one year versus what was originally proposed by BP Canada Energy Group ULC.

Environment and Climate Change Canada (ECCC)

Regulatory Requirements

Fisheries Act

The proponent should be aware of the general applicability of Section 36(3) of the Fisheries Act (http://laws-lois.justice.gc.ca/eng/acts/F-14/FullText.html) 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). Migratory birds, their eggs, nests, and young are protected under the Migratory Birds Convention Act (MBCA). The list of species protected by the MBCA can be found at: https://www.ec.gc.ca/nature/default.asp?lang=En&n=496E2702-1. Bird species not listed may be protected under other legislation.

Under Section 6 of the Migratory Birds 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 proponents should also be reminded that the prohibitions under the Species at Risk Act (SARA) are now in force. The complete text of SARA, including prohibitions, is available at http://laws-lois.justice.gc.ca/eng/acts/s-15.3/.

It should be noted that Section 79 of the Species at Risk Act states:

79. (1) Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted, and every authority who makes a determination under paragraph 67(a) or (b) of the *Canadian Environmental Assessment Act, 2012* in relation to a project, must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat.

(2) The person must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

Canadian Environmental Protection Act

The proponent should also be aware of the potential applicability of the Canadian Environmental Protection Act (CEPA) (https://laws-lois.justice.gc.ca/eng/acts/C-15.31/). 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 and Climate Change Canada (ECCC-CWS) has reviewed the above documents and offers 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 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 sampling programs must reflect a consideration of the following basic factors:

- Distribution and abundance of species during scheduled project activities;
- Impact pathways;
- Mitigations;
- 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 ROV survey:

- Noise disturbance from equipment including both direct effects (physiological), or indirect effects (foraging behaviour or prey species);
- Physical displacement as a result of vessel presence (e.g., disruption of foraging activities);
- Nocturnal disturbance from light (e.g., increased opportunities for predators, attraction to vessels and subsequent collision, disruption of incubation);
- Exposure to contaminants from accidental spills (e.g., fuel, oils) and operational discharges (e.g., deck drainage, grey water, black water);
- Attraction of, and increase in, predator species as a result of waste disposal practices (i.e., sanitary and food waste) and the presence of incapacitated/dead prey behind the vessel.

The proponent should refer to any applicable Strategic Environmental Assessments (SEA), where appropriate. For annual updates, the proponent is encouraged to contact ECCC-CWS to ensure that information listed in the SEA is still accurate.

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 following species at risk may be found near the project site: Ivory Gull (Endangered, SARA Schedule 1). The COSEWIC-assessed Red-necked Phalarope can also be found in the project area. Though unlikely to be found within the project footprint, these species may occur within the study area and we request that sightings be reported to ECCC-CWS.

It should be noted that the SARA list may change through the life of the project. Species listed after project approval may require additional mitigations. The proponent is encouraged to annually update the list of SARA species potentially affected by the project.

General Considerations:

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. other oil and gas activities, fishing, shipping, etc.).

Information Sources to be included in the EA

The proponent should be aware of Environment and Climate Change 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 (Pelagic Seabird Biologist, ECCC-CWS) at carina.gjerdrum@canada.ca.

The ECSAS program can be cited as follows: 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 an ROV survey on seabirds is relatively small, it remains important that the opportunity for this activity to impact federal-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.

Recommended Mitigations:

General 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. The following specific measures must be among those which are considered in preparing a mitigation strategy:

It is expected that the proponent demonstrate how they will minimize or prevent the release of hazardous substances on board the vessel (e.g. chemicals for equipment repairs, fuels, lubricants) into the marine environment. Attention must be paid to impact avoidance and pollution prevention opportunities and a contingency plan must be developed to enable a quick and effective response in the event of a spill. Other management practices and preventative maintenance plans must be outlined such as a protocol to prevent spill events. This protocol must describe conditions that will allow the survey program to be conducted without spill incidents (e.g., the range of environmental conditions within which the equipment can operate).

Light Attraction and Migratory Birds

Attraction to lights at night or in poor visibility conditions during the day may result in collision with lit structures or their support structures, or with other migratory birds. Disoriented migratory birds are prone to circling light sources and may deplete their energy reserves and either die of exhaustion or be forced to land where they are at risk of depredation.

To reduce risk of incidental take of migratory birds related to human-induced light, ECCC-CWS recommends implementation of the following beneficial management practices:

- The minimum amount of pilot warning and obstruction avoidance lighting should be used on tall structures. Warning lights should flash, and should completely turn off between flashes.
- The fewest number of site-illuminating lights possible should be used in the project area. Only strobe lights should be used at night, at the lowest intensity and smallest number of flashes per minute allowable by Transport Canada.
- Lighting for the safety of the employees should be shielded to shine down and only to where it is needed.
- LED lights should be used instead of other types of lights where possible. LED light fixtures are less prone to light trespass (i.e. are better at directing light where it

needs to be, and do not bleed light into the surrounding area), and this property reduces the incidence of migratory bird attraction.

Stranding

Systematic deck searches for stranded birds undertaken by trained observers are more effective as a mitigation than opportunistic searches. These systematic searches should occur at least daily (preferably at dawn), with search efforts documented and observation recorded (including notes of efforts when no birds are found). ECCC-CWS has expertise in this area and is available to be consulted in the development of systematic monitoring protocols. Should migratory birds become stranded on vessels, the proponent is expected to adhere to the protocol *Procedures for Handling and Documenting Stranded Birds Encountered on Infrastructure Offshore Atlantic Canada* (ECCC 2017) (attached). A permit will be required to implement this protocol and the proponent must be advised that such a permit must be in place prior to the initiation of the proposed activities. Please note that MBCA permit applications can be obtained from ECCC-CWS via email at ec.scfatlpermis-cwsatlpermits.ec@canada.ca.

Data Collection

ECCC-CWS has developed a pelagic seabird monitoring protocol (attached) that is recommended for use by experienced observers on all offshore projects. A guide for pelagic seabirds of Atlantic Canada has also been attached, for assistance in identifying pelagic seabirds in the area.

A report of the seabird monitoring program, together with any recommended changes, is to be submitted to ECCC-CWS on a yearly basis. In an effort to expedite the process of data exchange, ECCC-CWS recommends that the data (as it relates to migratory birds or Species at Risk) collected from the monitoring program be forwarded in digital format to ECCC-CWS following annual program completion (contact for data is Sydney Worthman, ECCC-CWS Environment Assessment Coordinator: sydney.worthman@canada.ca). These data will be centralized for ECCC-CWS' internal use to help ensure that the best possible natural resource management decisions are made for these species in Newfoundland and Labrador. Metadata will be retained to identify the source of data and will not be used for the purpose of publication. ECCC-CWS will not copy, distribute, loan, lease, sell, or use of this data as part of a value added product or otherwise make the data available to any other party without prior express written consent.

Accidental Spill Incidents

The assessment of environmental effects which could 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 5.1, Migratory Birds Convention Act). 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 assessment should describe the precautions that will be taken and the contingency measures that will be implemented to avoid or reduce the identified impacts.

In developing a contingency plan that would support the assessment of accidents and malfunctions, and a determination that impacts could be avoided or reduced, it is recommended that the Canadian Standards Association publication, *Emergency Planning for Industry CAN/CSA- Z731-95* (Reaffirmed 2002)[1], be consulted as a useful reference. All spills or leaks, including those from machinery, fuel tanks or streamers, should be promptly contained, cleaned- up and reported to the 24-hour environmental emergencies reporting system (Phone: 1-800-563-9089).

Spills could result in significant effects on migratory birds in the event that large numbers of birds, or individual species at risk (SAR), are affected. Migratory birds, including bird species at risk, could be significantly affected if spills affect important habitats or critical habitat for SAR. Disturbance resulting from accidental events during the breeding season in the vicinity of SAR or colonial bird nesting areas could also result in significant effects if it results in nesting failure or site abandonment by the birds.

Strategies to minimize or prevent accidental or chronic releases must be emphasized in a mitigation program. 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. The following considerations are requested to be factored into the development of a response plan that would help reduce impacts on seabirds:

- measures for containing and cleaning up spills (of various sizes);
- equipment that would be available to contain spills;
- specific measures for the management of large and small spills (e.g., breaking up sheens);
- mitigation measures to deter migratory birds from coming into contact with the oil;
- mitigation measures to be undertaken if migratory birds and/or sensitive habitat becomes contaminated with the oil; and
- the type and extent of monitoring that would be conducted in relation to various spill events.

1 https://www.scc.ca/en/standardsdb/standards/6215

In order to assist proponents in preparing a plan for dealing with an oil spill which would potentially threaten migratory birds, EC-CWS has prepared a guidance document (attached), a sample protocol document used for oiled birds on beaches (attached), and a protocol for handling non-oiled but dead birds found on vessels (attached).

Effects of the Environment on the Project

Seismic operations will be somewhat sensitive to environmental conditions (e.g., wind, waves, ice). The environmental review should include considerations on how such conditions acting on the project could have consequences for the environment (e.g., increased risk of spills and impacts on valued ecosystem components). Marine weather information can be found on the Meteorological Service of Canada website at www.weatheroffice.gc.ca/marine. Additional information on regional climatology can be found at www.climate.weatheroffice.ec.gc.ca, or by contacting Environment and Climate Change Canada directly. Also, ice information can be found on the Canadian Ice Service website at www.ice-glaces.ec.gc.ca.

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 (CSA) publication, *Emergency Preparedness and Response, CAN/CSA-Z731-03*[2], is a useful reference for this.

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).

[2] Canadian Standards Association (CSA). Emergency Preparedness and Response: A National Standard of Canada (CAN/CSA-Z731-03). Toronto: CSA, (R2014). https://store.csagroup.org/ccrz__ProductDetails?viewState=DetailView&cartID=&sku=Z731-03&isCSRFlow=true&portalUser=&store=&cclcl=en_US