From: Pulchan, Jerry (EC) <jerry.pulchan@canada.ca>
Sent: Monday, February 10, 2020 3:05 PM
To: Murphy, Ian
Subject: FW: BHP Canada EL 1157 and EL 1158 Seabed Survey Environmental Assessment
Attachments: Birds and Oil - CWS response plan guidance updated March 2017.pdf; Best practices for stranded birds_CWS_2017.pdf

Ian

My CWS colleague offers the following...

The Canadian Wildlife Service of Environment and Climate Change Canada (ECCC-CWS) has reviewed BHP Canada's Exploration Drilling Project EL 1157 and 1158 Seabed Survey Environmental Assessment Report and offer the following general and specific comments.

Please note, the following two documents are attached to this email for inclusion with the outgoing response:

* Environment and Climate Change Canada's Canadian Wildlife Service (2017). Birds and Oil – CWS Response Plan Guidance
* Environment and Climate Change Canada's Canadian Wildlife Service. (2016). Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada.

General Comments:

Migratory Birds

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). The list of species protected by the MBCA can be found at https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html. 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 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 depositing 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.

Accidental Events

The proponent must ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the MBR, "no person shall deposit or permit to be deposited oil, oil wastes or any substance harmful to migratory birds in any waters or any area frequented by migratory birds." Biodegradable alternatives to petroleum-based chainsaw bar oil and hydraulic for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fueling and servicing of equipment should not take place within 30 meters of environmentally sensitive areas, including shorelines and seabird colonies.

Provisions for wildlife response activities should be identified in the Oil Spill Prevention and Response Plan to ensure that pollution incidents affecting Wildlife are effectively and consistently mitigated. The document "Birds and Oil – CWS Response Plan Guidance" is attached and is provided to offer guidance on the development of wildlife response activities.

The following information should be included in any Oil Spill Prevention and Response Plan and Wildlife Emergency Response Plan (WERP):

* 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).
* Information on the wildlife potentially at risk in the area.
* 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.
* The type and extent of monitoring that would be conducted in relation to various spill events.

The proponent is recommended to consult with ECCC-CWS when developing Oil Spill Prevention and Response Plans, specifically when developing the WERP. ECCC-CWS is available to review WERPs prior to their implementation.

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.

Effects of the Project on Migratory Birds - Stranded Birds

Many migratory birds' foraging ranges (e.g. Leach's Storm-petrel) overlap directly with the Project Area and may be attracted to artificial lighting in the offshore environment. There is the potential for migratory birds to be attracted to and potentially be stranded on the survey vessels associated with the Project activities.

Should birds become stranded on the survey vessels, both during construction and operations phases, the proponent is recommended to adhere to Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada (attached). Systematic deck searches for stranded birds undertaken by trained observers are more effective as mitigation than opportunistic searches. These systematic searches should occur at least daily (preferably at dawn) on installations and supply vessels, with search efforts documented and observations recorded (including notes of efforts when no birds are found). ECCC has expertise in this area and should be consulted in the development of systematic monitoring protocols that are specific to each installation, vessel, etc. If species at risk are found stranded on the vessels, the proponent should immediately contact ECCC-CWS for further instructions. The contact is Sabina Wilhelm (ECCC-CWS Marine Issues Biologist) at sabina.wilhelm@ec.gc.ca or 709-764-1957.

A seabird handling permit will likely be required to implement the instructions in this reference document and the proponent must be advised that such a permit would have to be in place prior to the initiation of proposed activities. Please note that MBCA permit applications can be obtained from ECCC-CWS via email at ec.scfatlpermis-cwsatlpermits.ec@canada.ca.

Specific Comments:

Section 5.4 – Mitigation (pg. 47) – Quote "Routine systematic checks will be conducted daily on the survey vessels for stranded birds and handling of stranded birds will follow "Documenting Stranded Birds
Encountered on Infrastructure Offshore Atlantic Canada" (ECCC 2016)."

The proponent has not referenced the search protocols document correctly. The correct reference is Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic
Canada (ECCC 2016), so ECCC requests that the proponent amend the statement to reference the document correctly.

Section 6.2 – Accidental Events (pg. 52)

The proponent should include a statement in this section to clarify that the timing and location of potential spills can affect the magnitude of the effect of accidental events on marine and migratory birds. This has already been included in the paragraph related to commercial fisheries, but ECCC

requests that this also be included in the paragraph related to marine and migratory birds.

Section 6.4 – Cumulative Environmental Effects (pg. 53)
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., attraction, increase in predation, loss of foraging habitat) on birds from other activities (e.g., other oil and gas activities, fishing, shipping). ECCC requests that the proponent update the cumulative effects section to include additional information relating to VEC-specific cumulative effects.

Additionally, the proponent has not included the cumulative effect of artificial light as a part of their cumulative environmental effects assessment. ECCC requests that the proponent provide additional information regarding the potential cumulative effect of artificial lighting on the attraction of marine and migratory birds.

Please do not hesitate to contact me if you have any questions or concerns.

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