From: Keats, Kimberley F < Kimberley. Keats@dfo-mpo.gc.ca>

Sent: Thursday, July 2, 2020 10:37 AM

To: Murphy, lan

Subject: RE: BP - Ephesus Prospect CSEM Survey - EA Report

Hi lan,

We have reviewed the BP Canada Energy Group ULC Ephesus Prospect Controlled Source Electromagnetic (CSEM) Survey Environmental Assessment Report offer the following comments for your review and consideration.

## General Comments

In 6.0 Environmental Effects Assessment, the Proponent should ensure that all criteria listed in Table 5.3 are described for each VC. For example, in 6.1.4.1, direction and ecological or socioeconomic context are not provided. In 6.2.4, criteria appear to be lacking.

In 6.0 Environmental Effects Assessment, it is recommended that confidence levels be provided for determination of significance.

## **Specific Comments**

Figure 1.1, page 2 – Justification for the shape of the Project Area is not provided in the EA Report. Why does it border EL 1146, but extends beyond the border of EL 1145? An explanation for the selection of the Project Area should be provided.

Section 2.5.2 Electromagnetic Emissions, page 11, final paragraph – Aside from incorporating 10,000 A, how does the modelling apply to the Project?

Section 4.3 Marine Fish and Shellfish, page 24, paragraph 1, final sentence – The scientific name for Northern Wolffish should also be provided.

Section 4.3 Marine Mammals and Sea Turtles, Table 4.6, pages 25-26 – Ringed Seal is assessed as Special Concern by COSEWIC and should be bolded. Other species that could be included: Bowhead Whale (Eastern Canada – West Greenland population; see Figure 4.2) and Beluga Whale (Ungava Bay population; see Figure 4.3). It should be clarified why the Sei Whale and Northern Bottlenose Whale are considered uncommon (see Figures 4.2 and 4.3).

Section 4.5 Species at Risk, page 38, sentence 1 – Newfoundland and Labrador's Endangered Species Act should also be considered in identifying species at risk.

Section 4.5 Species At Risk, Table 4.8, pages 38-39 – Missing from this table are Spiny Dogfish (Atlantic population; Special Concern - COSEWIC), Beluga Whale (Ungava Bay population; Endangered - COSEWIC), Bowhead Whale (Eastern Canada – West Greenland population;

Special Concern - COSEWIC), Ringed Seal (Special Concern – COSEWIC) and Atlantic Salmon (Inner Bay of Fundy population; Endangered SARA Schedule 1). "Common lumpfish" can be changed to "lumpfish". Atlantic population should be added for Acadian Redfish, Blue Whale, and Basking Shark. No population should be provided for Atlantic Bluefin Tuna.

Table 4.9, pages 40-43 – Atlantic Salmon (Inner Bay of Fundy population) should be incorporated. For the North Atlantic Right Whale, a proposed Action Plan from 2020 is available. Population (Atlantic) should be noted for the Fin Whale. The Action Plan for the Scotian Shelf population of Northern Bottlenose Whale is not proposed. It should be explained why Northern Bottlenose Whales sighted in the Project Area are likely associated with the Davis Strait-Baffin Bay-Labrador Sea population. The proposed Recovery Strategy and associated critical habitat for Leatherback Sea Turtles is not publicly available and should not be discussed. An Action Plan for this species was released in 2020. Given the Endangered status of Loggerhead Sea Turtles, a Management Plan is not anticipated.

Section 4.6 Sensitive Areas, Table 4.10, page 45 – Missing from this table is Spotted Wolffish Critical Habitat. Although there is no overlap with the Project Area, there is overlap with the Study Area. Another column stating overlap or distance from Project Area to Sensitive Area would be beneficial. Funk Island Deep Closure is not number 10 (unlabeled in Figure 4.10). Orphan Spur EBSA is number 10, which means all numbering downward needs to be changed. It appears that after number 10, the numbers in the table do not correspond to the labels in Figure 4.10. "Northeast Shelf and Slope" should be "Northeast Slope". Bonavista Bay EBSA is missing (14 in Figure 4.10), as is Baccalieu Island EBSA (16 in Figure 4.10). Based on Figure 4.10, it appears that Small Gorgonian SBA overlaps the Project Area and should be bolded. Changes should be made elsewhere in the EA Report, as appropriate.

Figure 4.10, page 46 – The bright blue delineation in the bottom-left corner does not appear in the legend (or Table 4.10). The transit route and associated zone of influence should be drawn.

Section 4.6 Sensitive Areas, page 47, final paragraph – Are there other sensitive areas that could intersect the potential transit route?

Section 4.7 Fisheries and Other Ocean Users, page 47, paragraph 2, sentence 4) – Is "35" meant to be "3K"?

Section 4.7 Fisheries and Other Ocean Users, page 48, final paragraph) – It is not clear how the statement "within the Project Area, domestic commercial fishing activity appears to be focused primarily on Greenland halibut, along with northern shrimp and snow crab, as shown in Table 4.11" is derived from Table 4.11.

Figure 4.15, page 53 – It is not clear how Figure 4.15 differs from Figure 4.11.

Section 4.7.3 Other Ocean Users, pages 57-60 – A depiction of shipping traffic could be useful.

Section 5.1 Spatial and Temporal Boundaries, page 61, paragraph 1, sentence 2) – The ELs referenced are incorrect.

Table 5.1, page 62 – For Marine Fish and Shellfish, why is only essential habitat considered?

Section 6.1 Marine Fish and Shellfish, page 66, paragraph 1 – Recommend using exact wording from the Fisheries Act.

Section 6.1.3 Mitigation, page 66, bullet 3 – What will occur for depths < 500 m? Are there any shut-down protocols? For the time elapsed since the last sighting prior to the start of ramp-up, why is 20 minutes being uses instead of 30 minutes? How will observations of animals be made? These questions also apply to Marine Mammals and Sea Turtles (Section 6.2.3) and Species at Risk (Section 6.4.3).

Section 6.1.3 Mitigation, page 66, bullet 5 – Will any mitigation measures be implemented to prevent effects on the benthic species and habitat from sand anchors (e.g., surveys to identify placement locations)? Also see comment for Section 6.1.4.3 below.

Section 6.1.4.1 Survey Vessel Operation, page 67 – Discharges are noted as potentially having effects, yet they are not discussed. Include discussion of potential effects from discharges.

Section 6.1.4.3 Receiver Deployment and Retrieval, page 68 – It should be mentioned that deployed anchors may crush and/or kill sensitive corals, sponges, or other benthic species. Potential effects on benthic organisms should be described. Will any mitigation measures be implemented to prevent damage or destruction of sensitive benthic species?

Section 6.2.2, page 69 – A brief description as to why light and discharges are not anticipated to affect marine mammals and sea turtles would be useful.

Section 6.2.4.1 Survey Vessel Operation, page 71, paragraph 1, final sentence – What is the anticipated attenuation of sound?

Section 6.2.4.1 Survey Vessel Operation, page 71, paragraph 3, sentence 2 – The Proponent notes that there are results for gray and humpback whales, but does not present the results. Section 6.4 Species at Risk, page 78, paragraph 2, sentence 1 – Roughhead Grenadier is not a species at risk and should be removed.

Section 6.4.4.1 Survey Vessel Operation – Marine Fish Species at Risk, pages 79-80 – Population should be noted for White Shark when discussing its status under the SARA. This comment may apply to other species and other portions of the EA Report. Given that light and discharges are noted in 6.1.4.1, their effects should be discussed in 6.4.4.1.

Section 6.5.4.1 Survey Vessel Operation, page 84 – Is light expected to have any effect on sensitive areas? Justification should be provided for the statement "although sound and

emissions associated with Project activities are not expected to affect these sensitive areas to the extent that the ecological value of the sensitive area and the functions it provides would be compromised".

Section 6.6.2 Project Interactions, page 86 – Why aren't light, sound and discharges described as potential project interactions for fisheries and other ocean users?

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

Best, Kim

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From: Murphy, Ian <IMurphy@cnlopb.ca> Sent: Tuesday, June 2, 2020 12:00 PM

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Subject: BP - Ephesus Prospect CSEM Survey - EA Report

Hello All,

Please see the attached letter from the C-NLOPB and the Environmental Assessment Report for BP Canada Energy Group ULC's Ephesus Prospect Controlled Source Electromagnetic (CSEM) Survey. The C-NLOPB has requested comments by close of business July 2, 2020. If no comments are submitted, the C-NLOPB will assume none will be provided.

For further details, please visit the project page here:

https://www.cnlopb.ca/assessments/bp-canada-energy-group-ulc-ephesus-prospect-controlled-source-electromagnetic-csem-survey-2020/

Please contact me if you have any questions.

Regards, Ian

Ian Murphy
Environmental Assessment Officer
Canada-Newfoundland and Labrador Offshore Petroleum Board

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