



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Environmental Assessment and Marine Programs
Environmental Protection Operations Directorate - Atlantic
Environmental Stewardship Branch
6 Bruce Street
Mount Pearl NF A1N 4T3

14 January 2021

Ian Murphy
Environmental Assessment Officer
Canada-Newfoundland and Labrador Offshore Petroleum Board
Fifth Floor, TD Place
140 Water Street
St. John's, NF A1C 6H6

Dear Mr. Murphy:

**RE: Electromagnetic Geoservices Canada Inc. Orphan Basin and
South Bank Controlled Source Electromagnetic Survey 2022**

EAS 21-NL-070

As requested in your letter of 20 December 2021, Environment and Climate Change Canada (ECCC) has reviewed the Project Description and Draft Scoping Document of Electromagnetic Geoservices Canada Inc. (EMGS) for a data collection program in the eastern portion of the Canada-Newfoundland and Labrador Offshore Area.

According to the Project Description, EMGS is proposing to conduct a CSEM survey between May and October in 2022 over two areas in the C-NL Offshore Area (the Orphan Basin, and South Bank). Prior to the start of the survey, an array of receivers would be deployed in a grid pattern on the seafloor. An electromagnetic source would be towed behind the survey vessel approximately 30 m above the seabed along predetermined tow lines. EMGS anticipates that towlines will range in length from approximately 100-150 km and survey line spacing will be approximately 1.5 to 2 km, at a minimum. The duration of the survey is estimated to be 90 days.

ECCC has reviewed the above-mentioned documents in accordance with its mandated interests and expertise stemming from its responsibilities under the *Migratory Birds Convention Act*, the *Species at Risk Act*, Section 36 of the *Fisheries Act*, and the *Canadian Environmental Protection Act*. The following comments and recommendations are intended to assist in further project planning and implementation.

REVIEW COMMENTS

APPLICABLE LEGISLATION

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). 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 harm 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.

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.

WILDLIFE AND WILDLIFE HABITAT

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) has reviewed Electromagnetic Geoservices Canada Inc.'s Controlled Source Electromagnetic Survey (CSEM) 2022, and offers the following comments.

Please note that the following documents have been attached to this email for inclusion with the outgoing response:

- a) ECCC-CWS Guidance for developing systematic stranded bird survey protocols for vessels and platforms
- b) Appendix 1 – Stranded Bird Encounter Datasheet
- c) Appendix 2 – Infographic and Reference Card – *What to do when you find a stranded bird?*
- d) Appendix 3 – Seabird Identification Photo Card
- e) *Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada*

Document 1 – CNLOPB Review Request and SARA Notification (“20211220-transmittal of PD and draft Scope of Goc etl”)

- 1. ECCC-CWS requests that Red-necked Phalarope (Special Concern) be added to page 2 “Species at Risk – Section 79(1) Notification”.

Document 2 – Project Description (“EMGS 2022 CSEM PD”)

General

- 1. ECCC-CWS notes that the Project Description does not include a sufficient discussion on the environmental setting, nor project-related effects (residual and cumulative). ECCC-CWS acknowledges that these are likely included in the Eastern SEA Update and Regional Assessment GIS Tool (are were thus not necessary to reiterate, per review instructions), however, the draft EA Scoping document details the need for these to be included in the project description.

ECCC-CWS requests clarification on whether the C-NLOPB is satisfied with the Project Description as it is currently written, and whether the C-NLOPB will accept a request from ECCC-CWS that the Project Description contain a more thorough description of the environmental setting and project-related environmental effects (residual and cumulative).

Section 3.0 – Quality, Health, Safety, Security, and Environmental Management (pages 7-8)

- 1. Quote (page 7) “*The SMMO will be on board to conduct routine checks for stranded birds and Canadian Wildlife Service (CWS) bird handling and release procedures (e.g. Environment and Climate Change Canada 2016) will be implemented if stranded birds are encountered on the vessel.*”

ECCC-CWS notes that the location of the project (both Orphan Basin Regional Area and South Bank Regional Area) are located relative to known foraging habitats of Leach’s Storm-petrel (COSEWIC-assessed as Threatened in November 2020), particularly from important breeding colonies at Gull and Baccalieu Island. The project has the potential for increased interactions with Leach’s Storm-petrel and other migratory birds, particularly with respect to attraction to artificial lighting and potential strandings on vessels and project infrastructure (per Gjerdrum et al. 2021, storm-petrels are the most commonly stranded species in NL (93%) based on reports from 1998-2018). The location and proposed timing of activities overlap with peak storm-petrel stranding period (mid-September to mid-November) when young Leach’s Storm-petrel fledge and make their first flight offshore.

The prompt location of stranded birds through daily, systematic searches of vessel(s) increases

the potential of reducing harm and/or mortality of stranded birds. Gjerdrum et al. 2021 states per reports, 98% of stranded storm-petrels found alive were successfully released back to the ocean.

ECCC-CWS requests that the proponent develop and implement vessel-specific systematic search protocols for stranded birds that will be undertaken by trained, experienced observers, as per the recommendations outlined in the final report of the *Regional Assessment of Offshore Oil and Gas Exploratory Drilling East of Newfoundland and Labrador*. Additionally, ECCC-CWS notes that new guidance has been developed regarding the development and implementation of systematic stranded bird protocols. Guidance has been attached to the outgoing response for the proponent's consideration.

2. Given the high potential for migratory bird strandings, particularly Leach's Storm-petrel in mid-September to mid-November, ECCC-CWS recommends that the proponent consider including stranded seabird awareness training for all members on the vessel, to ensure that individuals are adequately informed of potential impacts to migratory birds. ECCC-CWS is able to provide awareness materials for the proponent's consideration, if desired.

Section 5.0 – Environmental Setting (pages 9-10)

1. Quote (page 9) *“The coasts of the eastern and northeastern NL are home to several million seabirds that forage off eastern NL during and following nesting season”*; Quote (page 10) *“Black-legged kittiwake, northern fulmar, storm-petrel, auks, large gulls, and shearwater were identified in the South Bank Regional Area (LGL 2010).*

ECCC-CWS requests that the proponent include additional information in Section 5.0 related to the potential increased interaction with Leach's Storm-petrel, for both areas (Orphan Basin and South Bank) (see information provided above).

While information on Leach's Storm-petrel is included in the Eastern SEA Update and Regional Assessment GIS Tool, ECCC-CWS notes that it is important to clearly emphasize that Leach's Storm-petrel may be impacted by the project, in particular due to the location of the project and the timing of activities.

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 weather.gc.ca/mainmenu/marine_menu_e.html. Additional information on regional climatology can be found at climate.weather.gc.ca/index_e.html or by contacting ECCC directly (1-833-794-3556; climatatlantique-climateatlantic@ec.gc.ca). Also, ice information can be found on the Canadian Ice Service website at www.canada.ca/en/environment-climate-change/services/ice-forecasts-observations/latest-conditions.html.

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*¹, 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).

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 contact me at your convenience.

Yours
truly,

Original Signed by Jerry Pulchan

Jerry Pulchan
Environmental Assessment Analyst
Environmental Protection Operations Directorate

Attachments

cc: S. Zwicker

¹ 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=&ccl=en_US