

From: EC  
Sent: May 6, 2014 4:43 PM  
To: Hicks, Darren  
Cc: EC  
Subject: EC Response: MKI Seafloor and Seabed Sampling EA

Darren,

As requested in your letter of 9 April 2014, Environment Canada (EC) has reviewed the environmental assessment (EA) report "Seafloor and Seep Sampling Program-Labrador Offshore to Jeanne d'Arc Basin (2014 to 2019) Environmental Assessment" (Stantec April 4, 2014). The report describes a proposal by TGS NOPEC Geophysical Company ASA (TGS) to conduct activities with regard to seafloor and seabed sampling program for the Labrador Offshore Area from 2014 until 2019.

Electromagnetic Geoservices Canada Inc. (EMGS) proposal to conduct non-exclusive controlled source electromagnetic (CSEM) project for the southern and eastern portions of the Newfoundland and Labrador Offshore Area from 2014 until 2018.

Please note that EC's previous comments on the scoping document and project description (submitted to you on 25 February 2014) are still applicable to the project as described in the EA report. In addition, the Canadian Wildlife Service of Environment Canada (EC-CWS) offers the following additional comments:

#### EC-01 Section 2.7 Key Mitigation Measures

Quote: "As the data collection will occur over a 24-hour period, lighting is required at night for safety purposes; there is potential for marine and migratory birds to be attracted to the vessel at night."

In Atlantic Canada, nocturnal migrants and night-flying seabirds (e.g. storm-petrels) are the migratory birds most at risk of attraction to lights and flares. 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 minimize risk of incidental take of migratory birds due to human-induced light, Environment Canada recommends at minimum the following beneficial management practices:

\* The minimum amount of pilot warning and obstruction avoidance lighting should be used on tall structures.

\* The use of only strobe lights at night, at the minimum intensity and minimum number of flashes per minute (longest duration between flashes) allowable by Transport Canada, is recommended.

\* Using the minimum number of lights possible is recommended.

#### EC-02 Section 2.7 Key Mitigation Measures

Quote: "The vessel crew will conduct routine checks for stranded birds and release of stranded birds per the protocol of Williams and Chardine (1999). A Live Seabird Salvage permit may be required."

The permit should be obtained and in place prior to operations. Please contact Environment Canada's permits office at [permi.atl@ec.gc.ca](mailto:permi.atl@ec.gc.ca) for further information concerning permits.

#### EC-03 Section 2.7 Key Mitigation Measures

Quote: "The research vessel will avoid seabird colonies."

A minimum setback distance concerning seabird colonies should be stated here. Additionally, a map of important seabird colonies should be added to the document.

#### EC-04 Section 3.2 Species at Risk

Though Ivory Gull, Barrow's Goldeneye and Harlequin Duck are mentioned in this section, there has been no effects assessment, nor mitigations provided. Effects assessments and mitigations should be added to this section.

The Ivory Gull recovery strategy has been finalized and is currently available at the Species at Risk Registry (see [http://www.sararegistry.gc.ca/species/speciesDetails\\_e.cfm?sid=50](http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=50)).

#### EC-05 Section 3.5 Marine and Migratory Birds

This section should be augmented with additional information concerning pelagic migratory seabirds. These data can be obtained from EC-CWS, primary literature, strategic environmental assessments, and previous environmental assessments, among other sources.

As stated in Environment Canada's comments concerning the project description, 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](mailto:carina.gjerdrum@ec.gc.ca). It should be noted that the ECSAS program is ongoing,

and a current focus on ECSAS monitoring is the Labrador Sea. Please see the attached report (Tranquilla et al. in press) for updated information in the region.

Tranquilla, L. M., Duffy, S. J., Avery-Gomm, S., Roul, S., Gjerdrum, C., Bolduc, F., and G. J. Robertson (in press), Baseline Surveys for Seabirds on the Labrador Sea (2010-08S): Interim Report. Environmental Studies Research Funds.

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.

#### EC-06 Section 3.5 Marine and Migratory Birds

This section should be augmented with additional information concerning colonial migratory seabirds. These data can be obtained from EC-CWS, primary literature, strategic environmental assessments, and previous environmental assessments, among other sources.

Population numbers for seabird colonies should be reported through the use of the most recent information available. Seabird colony numbers are routinely assessed and updated by EC-CWS and its partners, and data are compiled and stored in the CWS Atlantic Region Colonial Waterbird Database. These data can be obtained by contacting Sabina Wilhelm, EC-CWS colonial seabird biologist, at Sabina.wilhelm@ec.gc.ca.

Attached are two EC-CWS technical reports that can provide updated trend information on seabirds breeding in Groswater Bay and on one of the Wadham Islands. Additional more recent data for these and other colonies within the study area exist and are available upon request from EC-CWS.

Robertson, G. J. and R. D. Elliot. 2002. Changes in seabird populations breeding on Small Island, Wadham Islands, Newfoundland. Canadian Wildlife Service Technical Report Series No. 381. Atlantic Region. iii + 26 pp.

Robertson, G. J., R. D. Elliot, and K. G. Chaulk. 2002. Breeding seabird populations in Groswater Bay, Labrador, 1978 and 2002. Canadian Wildlife Service Technical Report Series No. 394. Atlantic Region. iv + 31 pp.

EC-07 Section 3.5 Marine and Migratory Birds As mentioned in our comments regarding the project description, EC-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 EC-CWS on a yearly basis. In an effort to expedite the process of data exchange, EC-CWS recommends that the data (as it relate to migratory birds or Species at Risk) collected from the monitoring program be forwarded in digital format to the EC-CWS office following completion of the study. These data will be centralized for EC-CWS's 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 source of data and will not be used for the purpose of publication. EC-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 the prior express written consent.

#### EC-08 Section 3.7 Sensitive Areas

A discussion of and a map of Important Bird Areas in the region should be added to this section. In the event of an oil spill, these areas may be affected and should thus be added to the report. See <http://www.ibacanada.com/> for further details.

#### EC-09 Section 6.1 Project Activities

A permit will be needed to collect dead migratory birds. See EC-02.

#### EC-10 Section 6.2 Accidental Events

Quote: "Species at risk and other not at risk species would be able to avoid any film that might form."

We recommend removing this sentence. Please consult O'Hara and Morandin (2010; attached) for information regarding the negative effects that even very small quantities of oil can have on thermoregulatory ability in migratory birds.

O'Hara, P. D., and L. A. Morandin (2010) Effects of sheens associated with offshore oil and gas development on the feather microstructure of pelagic seabirds. *Marine Pollution Bulletin* 60: 672-678.

#### EC-11 Section 6.2 Accidental Events

Quote: "The Canadian Wildlife Service Response Plan Guidance (2012) will be followed in the event of an oil spill."

The above guidance document is to help proponents formulate their own response plans, and is specific to migratory birds. The guidance document is not a response plan in and of itself, but information provided within it should inform the shipboard response plan.

#### EC-12 Section 6.2 Accidental Events

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) either at the drill site or during transport;
- \* 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.