

GENERAL COMMENTS

Environment Canada – CWS

Please note that EC's previous comments on the scoping document and project description (submitted to you on 17 January 2014) are still applicable to the project as described in the EA report.

Fish, Food and Allied Workers (FFAW)

Overall the report provides a perspective of the commercial fishery of the inshore fleet. However, as half of the Study Area and the majority of the 2014 proposal survey block is outside Canadian jurisdiction, harvesting data from NAFO would more accurately portray commercial fishing (harvesting) locations outside of the 200 mile limit, particularly for shrimp, turbot, redfish and cod.

The FFAW were engaged in a consultation with EMGS in January 2014 regarding their project however they have heard nothing from EMGS since that time. Pre-planning is important to minimize potential conflicts and any negative impacts on fishing activity, particularly as it appears that activity in the offshore in 2014 will be quite busy.

SPECIFIC COMMENTS

Canada – Newfoundland and Labrador Offshore Petroleum Board

Section 1.0 Introduction, second paragraph, last sentence, pg 1 – This sentence is awkward and should be rewritten to clearly express the idea trying to be communicated.

§1.3 EMGS Environmental Policy, second bullet, pg 5 – Minor point on consistency, but Environmental Policy should either be capitalized or not as it is in the following (third) bullet.

§2.2 Project Overview, 3rd para, 2nd & 4th lines, pg 7 – “*if required*”. There are commitments made throughout the report to marine mammal monitoring. The EA should be consistent. It is expected that a marine mammal and seabird observer, as per the “*Geophysical, Geological, Environmental and Geotechnical Program Guidelines (C-NLOPB 2012)*” will be on board the vessel.

§2.10 CSEM Receiver Packages, first sentence, pg 9 – Electromagnetic is spelled incorrectly.

§3.1 Bathymetry and Geology, second paragraph, pg 12 – “*The Flemish Pass is a saddle-shaped...*”

§4.2.4.1 Macroinvertebrates and Fishes Primarily targeted in Commercial Fisheries, subsection Northern Shrimp, last paragraph, pg 35 – “...isobaths on the northeastern slope of *the* Jeanne d’Arc Basin in...”

§4.3.1.1 Data Sets, last sentence, pg 50 – While the reviewer understands what is meant by “...3Kbcfgk, 3Ldehirt, 3Mabc, and 3Nabcd...” it may not be obvious to others. A suggested clarification is “...3K (sub areas b/c/f/g/k), 3L (sub areas d/e/h/i/r/t), 3M (sub areas a/b/c), and 3N (sub areas a/b/c/d)...”

§5.6 Effects of Environment on Project, second paragraph, pg 140 – It should read, “Similar percentages for exceedances of significant wave height...”

§5.7 Effects of the Project on the Environment, pg 141 – The physical effects of the anchors on applicable VECs (e.g. corals) should be included in the assessment. More detail should be provided on the overall footprint of up to 200 anchors on the seabed. The “anchors” should be identified as a separate project activity under seabed disturbance in Tables 5.3 and 7.1 the assessment of effects on VEC’s.

§5.7.1 CSEM Survey Components, second paragraph, first sentence, pg 141 – Remove the word “quickly” and replace it with “within a year” at the end of the sentence. “Quickly” is inaccurate because, as stated in section 5.7.4.3, the anchors will degrade within 9-12 months which can hardly be interpreted as “quickly”.

§5.7.1 CSEM Survey Components, pg 141 – Sources of scientific proof on the degradation of the anchors is required. In addition, the proponent is asked to provide this proof to the C-NLOPB in the form of digital copies of the literature.

§5.7.2.1 EM Background Information, 7th bullet, pg 143 – How is “*To our knowledge...frequency electromagnetic radiation*” one of the basics of electromagnetic physics such as Faraday’s Law. Further information should be provided to support this statement.

§5.7.2.3 Commercial Fisheries VEC, pg 146 – This section needs to be expanded to at least identify the typical targeted species and do they normally be affected by electromagnetic emissions.

§5.7.4.3 Geographic Extent – Receivers/Anchors, pg 149 – “*Based on EMGS’ experience with returns of receivers washed up on the beach, the anchors will all degrade within 9-12 months*”. Additional information, including references, is required to support this statement. This comment is also applicable for Section 5.7.4.4.

§5.7.6 Effects on Fisheries, pg 153 – Have the effects of the physical presence of the anchors left in various depths of water throughout the Project Area been considered in the assessment of effects on commercial fisheries.

§5.7.7.1 Waste Management, pg 154 – It should read, “...and seabirds VEC (see Table 5.2), *however*, the relatively...”

§5.7.7.3 Underwater Sound, pg 154 – References need to be provided to justify the contents of the last two sentences.

§5.8 Unexploded Explosive ordnance, last paragraph, pg 164 – It should be *non-interfering*.

Environment Canada (EC) – Canadian Wildlife Service (CWS)

§2.12 Helicopters, pg 10 - Aircraft, particularly helicopters, have been known to cause significant negative impacts to migratory birds during various life stages (i.e. chick rearing, moulting). Mitigation measures such as timing and adjusting the altitude and pattern of helicopter flight lines can minimize disturbance. Helicopter use near seabird breeding colonies should be avoided from May 1st – August 31st (with an end-date of September 30th for Northern Gannet Colonies).

§4.5.1 Information Sources, pg 101 - It should be noted in this section that the ECSAS program is ongoing. Updated information in the region that have been collected since the publication of Fifield et al. (2009) can be obtained by contacting Carina Gjerdrum, EC-CWS pelagic seabird biologist, at Carina.gjerdrum@ec.gc.ca.

§4.6 Species at Risk, pg 116 - The Ivory Gull is listed as Endangered under the Species at Risk Act. 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).

§4.7.4 Important Bird Areas, pg 125 - The Cape St. Francis (NF021), Cape Pine and St. Shotts Barren (NF015) and the Mistaken Point (NF024) Important Bird Areas should be added to this section.

§5.7.7.5 Light Attraction, third paragraph, pg 155 - Quote: “EMGS acknowledges that a CWS *Bird Handling Permit* will be required.”

The permit should be referred to as a Migratory Birds Convention Act (MBCA) permit, not a Canadian Wildlife Service (CWS) permit.

§6.2 Seabirds, pg 170 - The permit should be referred to as a Migratory Birds Convention Act (MBCA) permit, not a Canadian Wildlife Service (CWS) permit.

Fisheries and Oceans Canada (DFO)

Section 4.3.2 Regional NAFO Fisheries, pg 51 - This section should include reference to the current version of NAFO closed areas effective as of January 2014 which are available from the Fisheries Management Division of DFO.

Section 4.3.3.2 Analysis of Recent Commercial Catches and Section 4.3.3.3 Analysis of Commercial Catches in 2014 Survey Block, pgs 53-55 - While this section of the report notes the predominance of shrimp by weight in terms of overall catch up to 2010, it is felt that it should be updated to 2012 to reflect changes in shrimp activity specifically noting closure of 3M shrimp in 2011 and reduction in 3L shrimp TAC in recent years.

Section 4.2.4 Fisheries - American Plaice, pg 42 - The description provided for American Plaice should note that a moratorium is in place for 3LNO and 3M stock areas.

Section 5.7.2 Review of Effects of Electromagnetic Emissions, pgs 143 – 147 - The report should review and consider the potential for CSEM to impact functions (other than migration and prey detection) in the life history of marine fish, invertebrates and mammals. The review of potential impacts of CSEM on marine biota provided in Section 5.7.2.2 - 5.7.2.7 should be expanded where possible based on information which may come out of such review and consideration.

Section 4.2.4.2 Other Fishes Caught in the Commercial Fishery, pgs 40 – 48 - The Sara and COSEWIC status for each relevant species described should be included in their respective paragraphs in this section. Smooth Skate should also be discussed in this section as the Funk Island Deep population could be present in the Study Area. Roundnose Grenadier should be discussed in this section as the species could be present in the Study Area.

Table 4.8, pgs 89-90 - The applicable population names for each species should be included in this table. The Atlantic population of Sei Whale is a high priority candidate species under COSEWIC. It should be noted that Sperm Whale is a mid-priority candidate species, and Harp Seal and Hooded Seal are both high priority candidate species under COSEWIC as such Table 4.8 should be amended accordingly.

Section 4.4.1.4 Sperm Whale, pg 94 - Sperm Whale is a mid-priority candidate species under COSEWIC as such the 3rd sentence of this section should be amended accordingly.

Section 4.4.1.5 Hooded Seal and Harp Seal, pg 99 - Hooded Seal and Harp Seal are both high priority candidate species under COSEWIC as such the descriptions provided for both species should be amended accordingly.

Table 4.14, pg 117 - The row containing Atlantic Cod listed on Schedule 3 of Sara should be removed from the Sara column and placed in the appropriate COSEWIC column.

Section 4.7.1 Integrated Management Areas, pgs 126 -127 - The study area includes a portion of the NL Shelves Bioregion as well as the Placentia Bay Grand Banks Large Ocean Management Area (PBGB LOMA). It should be clarified that the two areas are different in nature and extent. The following reference gives some insight into the Bioregion and contains information that may be useful in describing the differences. DFO. 2009. *Development of a Framework and Principles for the Biogeographic Classification of Canadian Marine Areas*. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2009/056. The LOMA description seems a bit dated. The following current DFO website may help <http://www.dfo-mpo.gc.ca/oceans/planning/index-eng.html> . In particular the following text may be of use in clarifying the description.

Oceans Planning - To protect and manage our oceans, Canada has identified particular bodies of water as priority areas. Five Large Ocean Management Areas (LOMAs) have been established to focus on areas under pressure from human activities and to address key conservation challenges. DFO is learning how to apply the integrated management planning approach within these areas before broadening the approach elsewhere. While LOMAs have been the focus of attention in past years, Canada is also developing a marine protected areas network, involving all levels of government, to ensure a comprehensive approach to protecting marine areas. Applying different policy tools and approaches to these areas helps to balance the need to protect the marine environment from the impact of human and industrial activities that take place within these areas, thus taking an integrated oceans management approach to ocean planning. Decisions about ocean resources must take into consideration the long-term, direct and indirect impacts on social, economic and environmental systems. 2nd sentence 3rd paragraph page 127 - this sentence notes that *"The designation of EBSAs is a tool to allow appropriate management of geographically or oceanographically discrete areas that provide important services to one or more species/populations of an ecosystem or to the ecosystem as a whole, compared to other surrounding areas or areas of similar ecological characteristics (DFO 20130)".* This reference (DFO. 2013a. Assessment of Divisions 2G-3K northern shrimp. DFO Can. Sci. Advis. Sec. Stock Advis. Rep. 2013/012) does not appear to be the relevant reference for the statement and this inconsistency should be corrected accordingly.

Section 4.7.2 Coral and Sponge Areas, pg 128 - Figure 4.36 caption notes that the figure describes *"the locations of these 12 areas, eight of which occur entirely partially within the proposed Study Area"*. There would appear to be something missing from this sentence and it is suggested to clarify by adding *"...entirely or partially ..."*

Figure 4.36, pg 126 - The caption of needs to be changed as it refers to the NL Shelves EBSA should be plural (EBSAs).

Section 5.5 –Mitigations, pg 139 - Although this is not a seismic survey program environmental assessment some of the mitigation measures provided for within the "Statement of Canadian Practice with Respect to Mitigation of Seismic Sound in the Marine Environment" (SOCP) maybe applicable. The proponent should be required to adhere to all applicable minimum mitigations outlined in CNLOPB Guidelines and the

SOCP as well as those described in the EA page 139. This section should be amended accordingly.

Section 5.7.10 Effects on Species at Risk, pgs 161-163 - The effects assessment for species at risk only includes threatened and endangered species on Schedule 1 of SARA. This assessment should include all species listed on Schedule 1 of SARA (i.e., endangered, threatened and special concern). Page 161 states, "*The probability of encountering these species in the Study Area is low because they are rare, and in some cases would be at the limits of their present range...*" Although it may be unlikely that some of the species listed in this section would be present in the study area, it is important that the proponent employs all applicable mitigation measures as it is still possible that an individual could be encountered throughout the duration of the project.

Section 5.7.11 Sensitive Areas, pg 164 - This section states, in error, that the study area includes portions of two DFO EBSAs (PBGB and NL Shelves). Neither of these areas are EBSAs rather the PBGB (Placentia Bay Grand Banks) is a Large Oceans Management Area (LOMA) and the Newfoundland Labrador Shelf is a Bioregion as referenced in CSAS report DFO Can. Sci Advis. Sec. Sci. Advis. Rep. 2009/056 and as noted above in comments on Section 4.7.1. The description provided in Section 5.7.11 should be amended accordingly.

Section 6.0 Mitigation and Follow-up, page 169 and Section 6.3 Fisheries, pg 170-171 - The description of specific mitigations provided for in the 2nd paragraph of page 171 and the reference to "avoidance of conflicts with survey vessels" provided in the 1st sentence of 3rd paragraph on page 171 should both apply to DFO - Industry Post Season Crab Surveys. Reference to same should be explicit within this section accordingly.

Section 6.1 SARA Species, Including Marine Mammals and Sea Turtles, pg 170 - This section lists several mitigations that will be employed to protect species at risk. Although this is not a seismic program, some of the mitigations in the "*Statement of Canadian Practice with respect to the Mitigation of Seismic Sound in the Marine Environment*" (SOCP) may be applicable, as such the SOCP should be referenced in this section and the applicable mitigations adhered to. Any dead or distressed marine mammals, sea turtles, and other SARA species should also be reported to DFO, the last sentence of Section 6.1 should be amended accordingly.