

Environmental Assessment of Multiklient Invest's Newfoundland Offshore Seismic and Environmental Data Collection Program, 2026-2030

Addendum

Prepared by



Prepared for

Multiklient Invest AS

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Environmental Assessment of Multiklient Invest's Newfoundland Offshore Seismic and Environmental Data Collection Program, 2026-2030

Addendum

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1.0 Introduction

This document is an Addendum to Multiklient Invest's (MKI) environmental assessment (EA) of the Newfoundland Offshore Seismic and Environmental Data Collection Program, 2026–2030 Project. The document address review comments provided by the Canada-Newfoundland and Labrador Offshore Energy Regulator (C-NLOER), Fish, Food and Allied Workers (FFAW), Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada (ECCC), Fisheries, Forestry and Agriculture (FFA), and Department of National Defence (DND) on the MKI EA.

2.0 C-NLOER

2.1 General Comments

CNLOER-1

In various locations, the Environmental Assessment references previous Accord Act Legislation. Note that the title of the applicable statutes are now:

- *Canada-Newfoundland Labrador Atlantic Accord Implementation and Offshore Renewable Energy Management Newfoundland and Labrador Act.*
- *Canada-Newfoundland and Labrador Atlantic Accord Implementation and Offshore Renewable Energy Management Act.*

Response: Noted. Future EA Updates will reflect the revised titles of the Accord Acts.

CNLOER-2

For information: The Canada-Newfoundland and Labrador Offshore Area Petroleum Operations Framework Regulations came into force October 2024, and have several new requirements for seismic activities including but not limited to:

- Requirement of an Environmental Protection Plan, and description of various discharges associated with the proposed activity.
- Changes in reporting requirements.

Response: MKI commits to submitting an Environmental Protection Plan including descriptions of various discharges and will adhere to all reporting requirements.

2.2 Specific Comments

CNLOER-3 Section 2.6 Consultations

Table 2.3 (Consultation meetings held in person in St. John's, NL in 2024) indicates that possible survey

locations were discussed with the Fish Food and Allied Workers Union. While it is understood that surveying may occur within any portion of the Study Area, are there priority areas that can be provided as part of the Environmental Assessment at this time?

Response: Priority areas for surveying are based on client needs/interests. At present, these priority areas are unknown. Priority survey areas will be identified in EA Updates as has been standard practice.

CNLOER-4 Section 6.1.6 Marine Mammals and Sea Turtles

The EA Report states “The results of the marine mammal and seabird monitoring program will be included in an Environmental Report to be submitted to the C-NLOER. This report will be submitted to the C-NLOER by 31 January the following year as per C-NLOPB (2024) or within 90 days after the seismic survey ends (CNSOPB and C-NLOPB 2024)”. The C-NLOER notes that an error was made in the Scoping Document and that the date for the final Environmental Report will be as per the *Canada-Newfoundland and Labrador Offshore Area Petroleum Operations Framework Regulations*.

Response: Noted. MKI will adhere to all reporting requirements and timelines.

CNLOER-5 Section 8.1.7.1 Airgun Sound

Throughout this section, it is stated that confidence in the predictions is low-medium for effects of exposure to Project-related sound on marine mammals, given that there are data gaps in scientific data and uncertainties around the effects of multiple simultaneous seismic surveys.

Are there additional mitigation measures that can be proposed to address this uncertainty in the event simultaneous (up to three) surveys proposed?

Response: It is unlikely that MKI will conduct three simultaneous surveys. The key mitigation measure if simultaneous surveys are conducted is spatial separation of the survey areas. As indicated in the EA, MKI will maintain a minimum of 30 km separation between seismic surveys. In previous years, when MKI has conducted simultaneous seismic surveys offshore Newfoundland and Labrador spatial separation has generally been >30 km – typically at least 50 km ranging to >100 km. To the extent possible, MKI will maximize the spatial separation between simultaneous seismic surveys to minimize potential cumulative effects on marine mammals.

3.0 Fish, Food and Allied Workers (FFAW)

3.1 General Comments

FFAW-Unifor remains concerned about the long-term effects of seismic activity on commercially important species, which are not fully understood. While seismic exploration has occurred in Newfoundland and Labrador waters for decades, knowledge gaps persist regarding repeated

exposure over multiple years and its cumulative effects on commercial populations. Recent research highlights measurable short-term impacts on groundfish and crab species, though these results remain inconclusive. Further study is recommended, particularly regarding impacts across life-history stages (females, eggs, larvae), biomass densities, and prolonged exposure. Fish harvesters, as traditional ocean users, continue to report real-time behavioral responses of commercial species to seismic activity, including altered cod foraging and movement patterns, turbot migration away from activity zones, and stationary behavior in witch flounder. These observations, combined with emerging scientific evidence, demonstrate the urgent need for expanded research on both short- and long-term ecological effects.

The proposed seismic area overlaps with multiple inshore and nearshore fisheries critical to NL's coastal communities. Harvesters participate in snow crab, shrimp, turbot, cod, and capelin fisheries, each with distinct seasonal patterns that may coincide with seismic activity. Snow crab is generally harvested from late spring through summer into early fall; turbot and cod fisheries primarily operate during summer and fall; shrimp fisheries follow an April-to-March management cycle with seasonal concentration; and capelin fisheries occur during short, localized openings in early to mid-summer. These fisheries are dynamic, with timing and effort varying annually based on DFO management decisions and environmental conditions. Careful planning of seismic activities is essential to avoid conflicts with peak harvesting periods and ongoing fishing operations and ongoing efforts to engage are expected.

Seismic operations present potential conflicts with fixed gear, including crab pots, gillnets, and longlines. FFAW-Unifor emphasizes that DFO-industry post-season surveys, including the collaborative crab survey, must not be interfered with, as these are essential for stock assessment and quota-setting. Early and ongoing communication between MKI, C-NLOER, and FFAW-Unifor is essential to prevent operational conflicts and ensure survey integrity and safe fishing operations.

FFAW-Unifor recommends site-specific consultations with affected fish harvesters, including those from multiple regions who fish in offshore zones. Accurate mapping of NAFO fishing areas, species specific management areas and the project spatial scope should be superimposed to ensure EA planning reflects operational realities and avoids conflicts with fishing activity.

We encourage the proponent to contribute to expanded research programs addressing knowledge gaps on long-term impacts, life-history stages, species displacement, breeding behavior, and cumulative exposure. Collaborative research with harvesters, government, and academic partners will support precautionary management and sustainable decision making.

Seismic activity in Newfoundland and Labrador's offshore has occurred for decades, yet important uncertainties remain regarding its long-term ecological and fishery impacts. Harvesters' observations and emerging scientific evidence make clear that precaution, transparency, and respect for fisheries must guide this process. FFAW-Unifor urges that the finalized EA Report reflect these concerns and that MKI, in coordination with CNLOER, demonstrate how identified risks, knowledge gaps, and operational conflicts will be mitigated. Without such commitments, this program risks disrupting fisheries and undermining public confidence in offshore resource management.

Response: MKI has a long track record of early and ongoing consultation with the FFAW-Unifor and the NL fishing industry, as well as DFO with respect to post-season crab surveys. As described in the EA (see specifically Sections 6.1.2-6.1.4), MKI is committed to planning their seismic surveys to avoid conflict with fishing activities and compensation measures are in place in the unlikely event of potential conflicts. Furthermore, MKI has an established record of providing in-kind support for research programs offshore Newfoundland that have examined the effects of airgun sound on important commercial fisheries species including snow crab and Atlantic cod. MKI will continue to collaborate with researchers and the FFAW-Unifor on future studies if an appropriate opportunity arises in the future.

4.0 Fisheries and Oceans Canada (DFO)

4.1 General Comments

DFO-1

DFO is satisfied with the Proponent's commitment to adhere to DFO's Statement of Canadian Practice with respect to the Mitigation of Seismic Sound in the Marine Environment.

Response: Noted.

4.2 Specific Comments

DFO-2: Section 2.2 Project Overview, p. 8

The Report states "A typical shotpoint interval will be one array pulse every 12.5 m, 18.75 m or 25 m". The Report does not describe how shotpoint intervals will work for Ocean Bottom Nodes (OBNs) acquiring seismic data. In contrast to streamers with a spatial interval, will OBNs have a temporal shotpoint interval on the seafloor? DFO recommends providing additional information on OBN surveys in Section 2.2.7.

Response: The shotpoint interval of the airgun arrays for a seismic survey that uses streamers and a seismic survey that uses OBNs is the same; i.e., one array pulse every 12.5 m, 18.75 m or 25 m.

DFO-3: Section 4.2.1.1 Plankton, p.38

The Report states "Planktonic organisms are so ubiquitous and abundant, and typically have such rapid generation times, that there will be negligible effect on planktonic communities from the proposed seismic program. Therefore, no further assessment of the potential effects of the Project on phytoplankton and zooplankton will be discussed here".

This statement describes planktonic organisms as ubiquitous, abundant with rapid generation times.

This information should be cited, particularly given that it reaches the conclusion that there will be a negligible effect on planktonic communities.

Response: Replace the last paragraph in Section 4.2.1.1 with the following:

Community- or regional-level interannual and decadal variability in planktonic abundance and dominant composition are largely driven by natural processes, such as the NAO (e.g., Johns et al. 2001) and physical oceanic properties (e.g., SST, nutrient concentrations, climate change; e.g., Maillet et al. 2004 and Harrison et al. 2013 in C-NLOPB 2014). As such, it can be challenging to detect and accurately attribute cumulative changes to possible specific stressors, such as seismic surveys (Affatati and Camerlenghi 2023). However, multivariate statistical analyses and modelling may allow for the detection of community structure, composition, and/or diversity changes – or lack thereof – following seismic exposure, while accounting for spatial and temporal variability. Hynes et al. (2025) deployed moored benthic multichannel acoustic recorders and a wideband autonomous transceiver equipped with 38- and 333-kHz transducers on commercial fishing grounds offshore NL during a 100-day 3D seismic survey conducted by TGS in summer 2021. Following exposure, there were no measurable effects on the abundance or behaviour of zooplankton between 250-340-m water depth. Although McCauley et al. (2017) detected zooplankton mortality within 1.2 km following exposure to a 150-in³ airgun source (see Appendix A), follow-up simulation modelling using this mortality rate indicated the effects were limited spatially and that populations within the immediate survey area with the highest potential impact quickly recovered, owing to their rapid growth rates and general dispersion and mixing (Richardson et al. 2017; see also Appendix A). Vereide et al. (2025) observed low immediate zooplankton mortality with some delayed mortality following *in situ* exposure to a seismic survey with a 3060-in³ seismic array while submerged in bags in the North Sea. However, the zooplankton biomass remained consistently distributed in accordance with hydrography and chlorophyll distribution pre-and post-exposure.

Overall, recent evidence suggests that seismic surveys of the sort typically conducted in the offshore NL area (and the North Sea) have limited and transient effects on marine planktonic communities, with no measurable impacts at the community- or regional-level. As such, no further assessment of the potential effects of the Project on phytoplankton and zooplankton will be discussed here. MKI will continue to monitor for new research via EA Updates.

Literature Cited:

- Affatati, A. and A. Camerlenghi. 2023. Effects of marine seismic surveys on free-ranging fauna: a systematic literature review. *Front. Mar. Sci.* 10:1222523. Available at: <https://doi.org/10.3389/fmars.2023.1222523>.
- Hynes, H., K.Q. Nguyen, M. Geoffroy, S.B. Marin, and C.J. Morris. 2025. Subtle shift in depth distribution of fish within the impact range of seismic surveying along a continental slope. *Can. J. Fish. Aquat. Sci.* 82: 1-15. Available at: <http://dx.doi.org/10.1139/cjfas-2025-0027>.

Johns, D.G., M. Edwards, and S.D. Batten. 2001. Arctic boreal plankton species in the Northwest Atlantic. *Can J. Fish. Aquat. Sci.* 28: 2121-2124. Available at: <https://doi.org/10.1139/cjfas-58-11-2121>. Vereide, E.H., A.C. Utne-Palm, J. Titelman, G. Pedersen, E. Strand, M. Mihaljevic, S. Kühn, D. Altin, A. Thorsen, L. Campillo, D.M Fields, B. Khodabandeloo, and K. de Jong. 2025. Zooplankton mortality and distribution around a seismic survey. *Sci. Rep.* 15:33907. Available at: <https://doi.org/10.1038/s41598-025-09465-2>.

DFO-4: Section 4.2.1.2 Benthic Invertebrates, p.39

The Report states “It is important to note that beyond the Canadian 200 nm limit, excluding the Nose and Tail of the Grand Banks, the Flemish Pass, and the Flemish Cap, there is a substantial deficiency in data related to the benthos. The information presented in this subsection mainly pertains to studies completed on the continental shelf and slope of the Study Area”.

Deep Water Corals and Sponges, p.40. Commitments have been made in other sections to update the EA with any new data. Will the results of 2024 NAFO analysis on groundfish surveys be included in EA updates as well? If so, DFO recommends that the Proponent states that commitment again in this section.

Response: As with previous EA Updates for MKI and requirements of the C-NLOER, new and relevant data/information will be included in future EA Updates including data/information for groundfish surveys as appropriate.

DFO-5: Section 6.1.5 Avoidance of Sensitive Benthic Habitat, p. 241

The Report states “To mitigate potential impacts with corals and sponges, the ROV will conduct a visual survey for a suitable deployment location for each OBN (within approximately 5 m of the planned deployment location). A suitable location will be selected to avoid contact with sensitive corals and sponges (e.g., gorgonians or black corals) to the extent possible.

Deployment with ROV will aim to have OBNs positioned at least 2 m from habitat forming corals and sponges (as outlined in Annex A in DFO 2023e). When deploying/retrieving OBNs on the seafloor by ROV, the ROV will make all efforts to avoid contact with corals and sponges”.

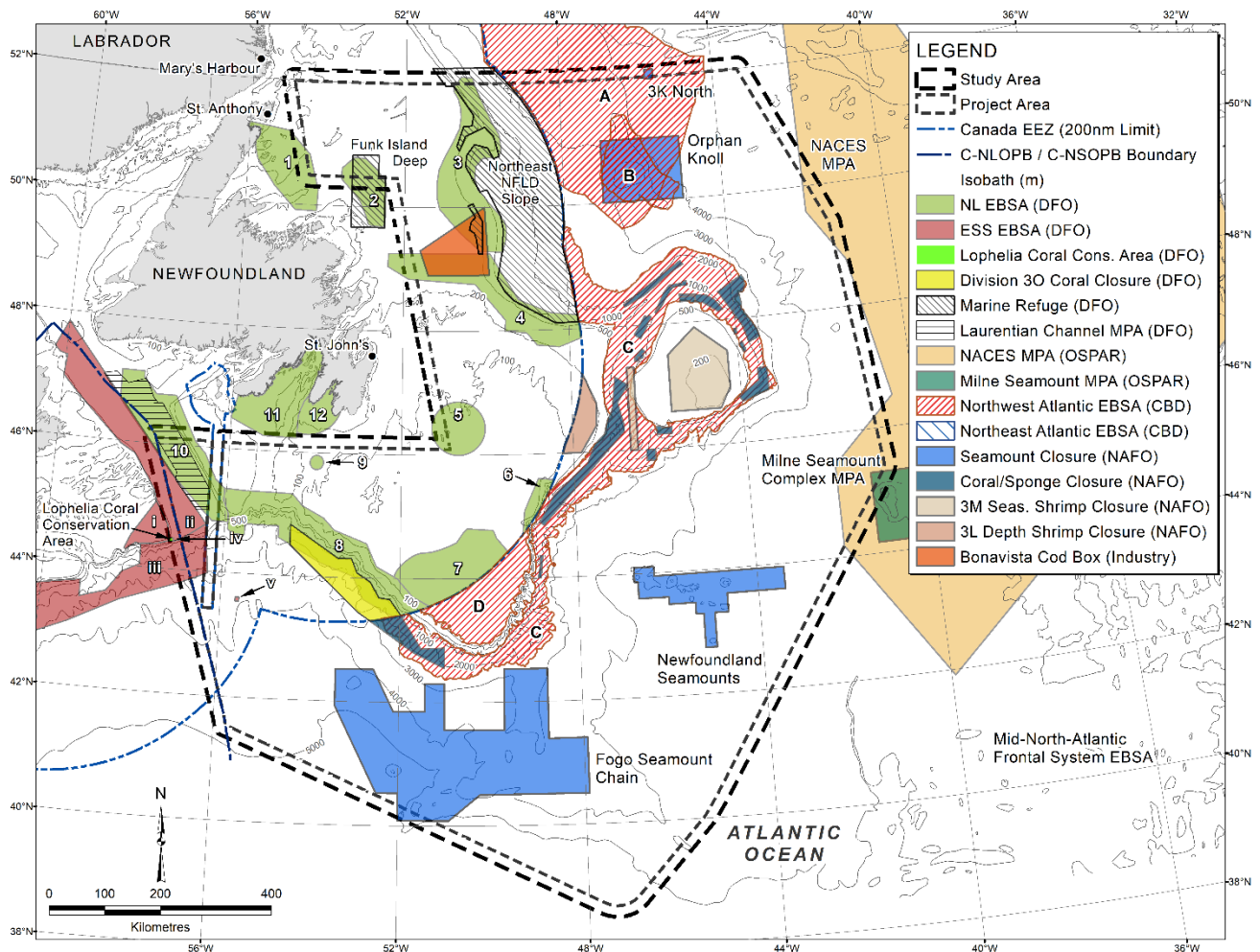
DFO is satisfied with the Proponent’s commitment to conduct ROV surveys at deployment locations for each OBN and a buffer of at least 2 m for avoidance of OBN contact with habitat forming corals and sponges.

The Proponent should note that no oil and gas activity (including seismic) can occur within Marine Protected Areas and activities proposed to occur within Other Effective Area-based Conservation Measures (OECMs) will be assessed on a case-by-case basis. For OECMs, the Proponent would be required to submit an Activity Plan to DFO for assessment, with approval dependent on whether the Minister is satisfied that risks to the OECMs biodiversity conservation benefits can be avoided or mitigated effectively. The Proponent can contact DFO.MarineRefugesNL-RefugesmarinsTN.MPO@dfo-mpo.gc.ca to receive an Activity Plan application form.

Figure 4.63 Location of sensitive areas that overlap the Study Area. This Figure categorizes the Funk Island Deep Closure as a Fishery Exclusion Area. This closure is a Fisheries Act Marine Refuge.

Response: MKI will seek further clarity from DFO (and the C-NLOER) on the regulatory procedures and requirements for OECS in the Project Area and follow applicable regulations.

A corrected Figure 4.63 is provided below.



DFO-6: Section 6.1.6 Marine Mammals and Sea Turtles, p. 242

The Report states “Any dead or distressed marine mammals or sea turtles will be recorded and reported to the C-NLOER (and DFO as required).”

The Report also states “In the unlikely event that marine mammals, sea turtles, or birds are injured/killed by Project equipment or accidental fuel spills, a report will be immediately filed with the C-NLOER and the need for follow-up monitoring will be assessed.” It is highly recommended that

the Proponent report all incidents to DFO for any injured, stranded, entangled or dead marine mammal or sea turtles.

<https://www.dfo-mpo.gc.ca/species-especes/mammals-mammiferes/report-rapport/page01-eng.html>

Response: MKI will report all injured/deceased/oiled/stranded/entangled marine mammals and sea turtles to DFO and the C-NLOER.

DFO-7: Section 8.1.4.2 Vessel/Equipment Presence, Floating LiDAR Systems, p. 260

The Report states “When the seabed anchor contacts the seabed, this will result in displaced sediment for habitats with soft substrates (e.g., silt, sand), which could result in localized burial of immobile/sessile benthos (BOEM 2023, 2024). In the same action, the seabed anchor could impact benthos unable to move out of the way when contact with the seabed is made. If the seabed anchor were to be deployed on habitat forming benthos, such as coral or sponge gardens, this would result in small-scale habitat loss for associated fauna; conversely, the presence of the seabed anchor could serve as an artificial reef habitat and attract benthic fish or invertebrates (BOEM 2023, 2024)”.

The Report also states “Based on mitigation measures and the general nature of the presence and operation of FLS, residual effects on the FFH VC from the presence of FLS are predicted to be negligible in magnitude for a short-term duration over a geographic extent of <1 km², and to be continuous in frequency (for the duration of deployment; see Table 8.2). Residual effects are predicted to have negligible sensitivity to seasonality (timing) and to be fully reversible. The Study Area is considered disturbed. Based on these criteria ratings, the residual effects of the presence of LS on the FFH VC are predicted to be not significant (see Table 8.3). The level of confidence associated with this prediction is high based on available literature and professional judgment.”

DFO requests clarification on whether pre-clearance/visual surveys will be conducted prior to the placement of seabed anchors for the FLS, similar to what will be done prior to OBN deployment. With the absence of visual surveys, loss of habitat is likely, and therefore contradicts the conclusion that effects of the FLS will be negligible, short-term, fully reversible and not significant. Particularly given coral and sponges species in NL are sensitive, slow growing, and have extremely lengthy recovery rates.

Response: As described in Section 5.5.3 of the EA, a negligible magnitude ranking is judged to be an effect that has either no or minimal observable effects and which are deemed to not result in a change in the size or health of a population or the carrying capacity of its habitat. At most, in a given year, 10 FLS will be installed; this results in a total footprint on the seabed of ~23.4 m² (which is 1.88 x 10⁻⁹ % of the Project Area. In most years, 1 to 3 FLS will be installed (footprints of 2.34 m² to 7.02 m²), representing an even smaller footprint. MKI commits to communicating with DFO prior to the installation of FLS to provide further details on FLS deployment techniques once these details are known. MKI would also take this opportunity to understand DFO’s protocol for installing equipment on the seabed offshore NL.

5.0 Environment and Climate Change Canada (ECCC)

5.1 Specific Comments

ECCC-1: Section 2.2.12 Accidental Events, p. 12

Quote - "In the unlikely event of the accidental release of hydrocarbons during the Project, the measures outlined in MKI's Oil Spill Response Plan will be implemented. The oil spill response plan will be filed with the C-NLOER. In addition, MKI will have an Emergency Response Procedure in place."

ECCC recommends that the proponent's oil spill response plan include components related to wildlife response (included in a Wildlife Response Plan (WRP)). At minimum, ECCC recommends that the WRP include the following information:

- a) Information on the wildlife potentially at risk in the area;
- b) Mitigation measures to deter non-affected wildlife from affected areas;
- c) Mitigation and response measures to be taken if wildlife and/or sensitive habitats become contaminated by the incident (including treatment of oil-affected wildlife); and
- d) The type and extent of wildlife monitoring conducted during and following a pollution incident.

Guidance materials including "Guidelines for Development Wildlife Response Plan" (ECCC, 2022) are available online at [National Wildlife Emergency Response Framework - Canada.ca](https://www.ec.gc.ca/nloer/14975644-8000-4980-9000-000000000000/national-wildlife-emergency-response-framework-canada-ca). The proponent should consult ECCC when developing Wildlife Emergency Response Plans.

Response: As noted, MKI will submit its Oil Spill Response Plan to the C-NLOER for review. The plan will include the components noted above and MKI will consult with ECCC during its development as required.

ECCC-2: Section 2.3 Mitigation and Monitoring for Marine Mammals, Sea Turtles, and Seabirds, p. 13

Quote - "In addition, the MMOs will conduct a monitoring and release program for seabirds which may strand on Project vessels. Seabird monitoring will include systematic counts based on protocols issued by the ECCC-CWS. Likewise, mitigation measures and monitoring for stranded birds will follow established ECCC-CWS procedures."

ECCC advises that the location of the Project may be used by Leach's Storm-petrel (COSEWIC-assessed as Threatened in November 2020), particularly foraging Leach's Storm-petrel from important breeding colonies at Gull Island and Baccalieu Island, two of the larger colonies in Atlantic Canada. 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 recommends 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 advises 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, see attachments 1-5.

ECCC advises that the handling and subsequent release of stranded birds may require an CWS Scientific Migratory Birds Convention Act (MBCA) permit. Information on the MBCA permitting process can be found at scf-atlpermis-cws-atlpermits@ec.gc.ca.

Response: MKI is aware of the ECCC requirements and will follow established protocols and permitting requirements.

ECCC-3: Section 2.4 Environmental Monitoring, p. 13

Quote - "Systematic seabird counts will also be conducted during seismic surveys. As per the most up-to-date ECCC-CWS protocols (Gjerdrum et al. 2012), seabird surveys will be conducted two to three times daily, each survey period consisting of at least six, consecutive, 5-minute observation periods. ECCC-CWS now has a mobile version of Eastern Canadian Seabirds at Sea (ECSAS) database (CWS 2019), which can be used by observers to facilitate data entry with little to no need for post-processing."

ECCC notes that it appears that there is some confusion regarding the two types of migratory bird-related surveys that need to be conducted by on-board seabird observers. The first is daily migratory bird monitoring following the Eastern Canadian Seabird at Sea protocols (Gjerdrum et al. 2012) whose procedures differ depending on whether the vessel is moving or stationary. The second are systematic stranded bird monitoring surveys (conducted once daily) following the site-specific protocols developed following the Guidance for developing systematic stranded bird survey protocols for vessels and platforms (ECCC-CWS, 2021), attachment 1.

Response: There is no confusion on MKI's part. MKI has many years of experience using experienced and trained biologists to implement both the stranded bird vessel searches and the ECSAS survey protocol during seismic surveys offshore NL. As indicated in the EA, MKI is committed to implementing both the vessel searches and the ECSAS surveys.

ECCC-4: Migratory Birds

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.

Response: MKI has undertaken this vessel crew awareness training for stranded birds regularly at the start of the seismic survey and for new crew that join the vessel. Vessel crew are always adequately informed. In addition, information sheets on Leach's Storm-petrels and "what to do" in the event that a crew member sights a stranded bird are posted on bulletin boards in common areas of the vessel. MKI will continue these practices on future seismic surveys.

ECCC-5: Applicable Legislation and Standard Recommendations ECCC-5a: Migratory Birds Convention Act

The federal [Migratory Birds Convention Act](#) (MBCA) and its [regulations](#) protect migratory birds and their eggs and prohibit the disturbance, damage, destruction or removal of migratory bird nests that contain a live bird or a viable egg. Migratory birds and protected at all times; all migratory bird nests are protected when they contain a live bird or viable egg; and the nests of 18 species listed in [Schedule 1 of the MBR 2022](#) are protected year-round. These general prohibitions apply to all lands and waters in Canada, regardless of ownership. For more information, please visit: <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>.

For migratory birds that are listed as Endangered, Threatened, or Extirpated on Schedule 1 of the *Species at Risk Act* s.32 (protection of individuals) and s.33 (protection of residences) apply to all land tenure types in Canada. For some migratory bird species listed under the *Species at Risk Act* (SARA), the residence prohibition will protect nests that are not active but are re-used in subsequent years (please note that the residence of a migratory bird may not necessarily be limited to their nest).

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 to be deposited in any place if the substance, in combination with one or more substances, result 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."

The proponent is responsible for ensuring that activities are managed to ensure compliance with the MBCA and associated regulations.

Response: MKI is aware of the legislative requirements noted above and will comply with the MBCA and associated regulations.

ECCC-5b: Species at Risk Act

The *Species at Risk Act* “General Prohibitions” apply to this project. In applying the general prohibitions, the proponent, staff and contractors, should be aware that no person shall:

- Kill, harm, harass, capture or take an individual;
- Possess, collect, buy, sell, or trade an individual, or any part or derivative;
- Damage or destroy the residence of one or more individuals.

General prohibitions only apply automatically:

- On all federal lands in a province;
- To aquatic species anywhere they occur;
- To migratory birds protected under the *Migratory Birds Convention Act, 1994* (MBCA) anywhere they occur.

Section 33 of SARA prohibits damaging or destroying the residence of a listed threatened, endangered, or extirpated species. For migratory bird species at risk (SAR), the prohibition immediately applies on all lands or waters (federal, provincial, territorial, and private) in which the species occurs.

In federal environmental assessment (EA), ss.79(2) of SARA required that persons responsible for an EA: 1) identify adverse effects on all listed species; 2) if the project is carried out, ensure that measures are taken to avoid or lessen those effects; and, 3) monitor them. ECCC advocates a similar approach for non-federal forms of environmental assessment.

ECCC-CWS advises that all comments it provides concerning species at risk that are not migratory birds protected by the MBCA derive from federal recovery/management plans as posted on the Species at Risk Registry (<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>), and thus comments may not be comprehensive to the body of knowledge for the species. The Province of Newfoundland and Labrador’s Department of Fisheries, Forestry and Agriculture – Wildlife Division holds expertise and authority regarding mitigations and management of birds that are not protected by the MBCA, such as raptors.

For species which are not listed under SARA but are listed under provincial legislation only or that have been assessed and designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), it is best practice to consider these species in EA as though they were listed under SARA.

It should be noted that Section 79 of the *Species at Risk Act* states:

79 (1) Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted, and every authority who makes a determination

under paragraph 82(2) of the [Impact Assessment Act](#) in relation to a project, must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat.

(2) The person must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

Response: Noted. The EA has thoroughly considered effects of Project activities on birds as well as at risk species.

ECCC-5c: Fisheries Act

Pollution prevention and control provisions of the *Fisheries Act* (<http://laws-lois.justice.gc.ca/eng/acts/F-14/FullText.html>) are administered and enforced by Environment and Climate Change Canada (ECCC). The proponent should be aware of the general applicability of Section 36(3) of the *Fisheries Act* 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*.

It is the responsibility of the proponent to ensure that all reasonable measures are conducted to prevent the release of substances deleterious to fish from their proposed activities. In general, compliance is determined at the last point of control of the substance before it enters waters frequented by fish, or, in any place under any conditions where a substance may enter such waters.

Additional information on what constitutes a deposit under the *Fisheries Act* can be found at: <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/fisheries-act-registry/frequently-asked-questions.html>.

Response: Noted and addressed in the EA.

ECCC-6: General Recommendations ECCC-6a: Nesting

The breeding season for most birds within the project area (Zone “D3-4”) occurs between mid-April and mid-August in this region, however some species protected under the MBCA nest outside of this time period. Information regarding regional nesting period can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>.

Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material

from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in headponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow) may build their nests on structures such as bridges, ledges, or gutters. One method frequently used to minimize the risk of destroying bird nests consists of avoiding certain activities, such as clearing, during the regional nesting period for migratory birds. The risk of impacting active nests or birds caring for pre-fledged chicks, discovered during project activities outside the regional nesting period, can be minimized by measures such as the establishment of vegetated buffer zones around nests, and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is incumbent on the proponent to identify the best approach, based on the circumstances, to comply with the MBCA. Further information can be found at: <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>.

Response: Noted. MKI Project activities will not interact with bird nesting habitat.

ECCC-6b: Fuel Leaks

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 substances 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 servicing of equipment should not take place within 30 metres of environmentally sensitive areas, including shorelines and wetlands. 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 “Guidelines for effective wildlife response plans” is provided to offer guidance on the development of wildlife response plans. Documents can be downloaded from [National Wildlife Emergency Response Framework - Canada.ca](#) “Guidelines for wildlife response plans”. The following information should be included in any Oil Spill Prevention and Response Plan:

- 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.

Response: Noted. MKI’s Oil Spill Response Plan will include the information requested above.

ECCC-6c: Noise Disturbance

Anthropogenic noise produced by construction and human activity can have multiple impacts on birds, including causing stress responses, avoidance of certain important habitats, changes in foraging behaviour and reproductive success, and interference with songs, calls, and communications. Activities that introduce loud and/or random noise into habitats with previously no to little levels of anthropogenic noise are particularly disruptive.

ECCC-CWS recommends the following best management practices:

- The proponent should develop mitigations for programs that introduce very loud random noise disturbance (e.g., blasting programs) during the migratory bird breeding season for their region.
- The proponent should, where possible, prioritize construction works in areas away from natural vegetation while working during the migratory bird breeding season. Conducting loud construction works adjacent to natural vegetation should be completed outside the migratory birds breeding season.
- The proponent should keep all construction equipment and vehicles in good working order and loud machinery should be muffled if possible.

Response: The project is marine-based and has no construction activities including blasting. Established mitigation measures for airgun array noise will be implemented as described in the EA.

ECCC-6d: Light Attraction and Migratory Birds

Attraction to lights at night or in poor visibility conditions during the day may result in collisions with lit structures, or with other migratory birds. Disoriented migratory birds are prone to circling light sources and may deplete their energy reserve and either die of exhaustion or be forced to land where they are at risk of depredation.

To reduce the risk of disturbance or harm to 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 lighting should be used on tall structures. Warning lights should flash and should completely turn off between flashes.

The fewest number of site-illuminated lights possible should be used in the project area. Only strobe lights should be used at night, at the lower intensity and smallest number of flashes per minute allowable by Transport Canada.

Response: These comments seem to be more in line with land-based projects. As stated in the EA, MKI is committed to minimizing vessel lighting to the extent safely possible. Furthermore, ECCC protocols for searching for stranded birds (that are attracted to vessel lighting) will be implemented.

ECCC-6e: Effects of Construction/Operations on Migratory Birds – Stranded Birds

Due to the propensity of seabirds from nearby colonies to be attracted to light, it is possible that migratory birds may be attracted to and potentially be stranded on the site. ECCC-CWS recommends that a site monitoring plan be developed for the migratory bird breeding season as well as the spring and fall migration periods and implemented while floodlights are being used during nighttime hours. A site monitoring plan could include protocols such as dusk and dawn site inspections to look for stranded birds that may have landed on site, and/or inclusion of migratory bird searches into stranded occupational health and safety daily inspections, etc. ECCC-CWS recommends, at minimum, daily searches during early morning hours, particularly during early September to late November, to search for migratory birds that may become stranded on-site.

Should birds become stranded on the project site, 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). ECCC-CWS should be notified if bird stranding incidents occur. A seabird handling permit will 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 scf-atlpermis-cws-atlpermits@ec.gc.ca.

If any birds are found stranded on-site, the proponent should immediately contact ECCC-CWS for further instructions. The contact is Sabina Wilhelm (sabina.wilhelm@ec.gc.ca or 709-764-1957).

Response: These comments seem to be more in line with land-based projects. As stated in the EA, MKI is committed to minimizing vessel lighting to the extent safely possible. Furthermore, ECCC protocols for searching for stranded birds (that are attracted to vessel lighting) will be implemented.

6.0 Fisheries, Forestry and Agriculture (FFA)

FFA-1: Engagement Activities and Plans

There is potential for overlap with this project and local fish and seafood harvesters. To mitigate any negative impacts on the marine environment and local fisheries, FFA advises the inclusion of consultation with local fish harvesters, specifically those adjacent to the province in the Northwest Atlantic Fishing Organization (NAFO) Divisions 3KLMNOPs, (Figure 1). Harvesters can be consulted directly, by way of local Small Craft Harbour authorities or through the Fish, Food and Allied Workers Union (FFAW). FFA also advises that the proponent consult the DFO Fish and Fish Habitat Protection Program to request a review of the project to assess potential risks and impacts on the conservation and protection of fish and fish habitat.

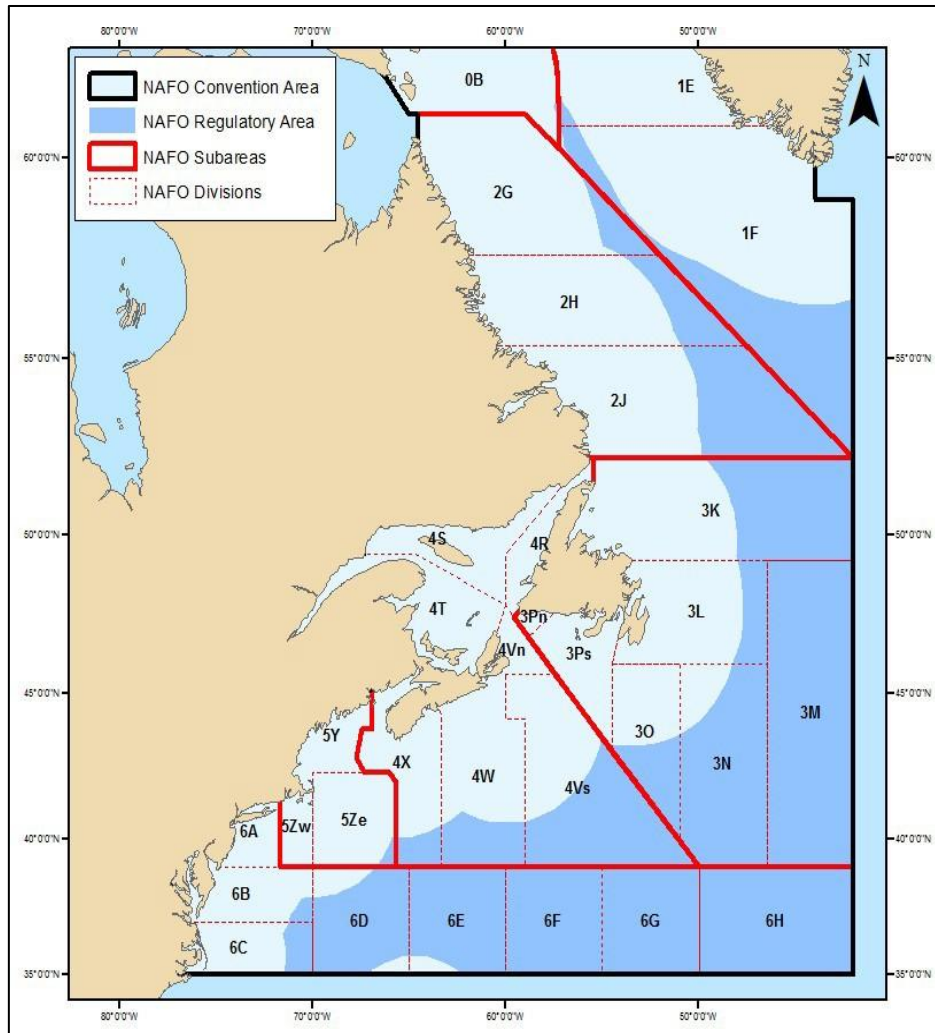


Figure 1: Northwest Atlantic Fishery Organization (NAFO) Regulatory Areas Map

Response: The EA adequately addresses consultation with the FFAW-Unifor and fisheries groups as well as potential effects on fish and fish habitat. DFO has reviewed and provided feedback on the EA.

FFA-2: Aquatic Invasive Species (AIS)

To prevent the spread of AIS, FFA recommends that the proponent follow recommended best practices and guidelines. These practices are critical for ensuring that harmful AIS are not spread to other areas throughout the region. Best practices to prevent the introduction and spread of AIS include:

- AIS awareness in waters frequented
- Taking precautions with respect to vessel traffic and gear movement between affected and unaffected areas to prevent introductions and spread

- Clean, drain and dry gear and ropes to prevent movement between areas by avoiding transportation of water from one location to another
- Routine vessel maintenance (i.e. cleaning the hull and using antifouling paint to prevent biofouling)
- Identifying and reporting any AIS to Fisheries and Oceans Canada (DFO)

[More information about aquatic invasive species in the NL Region can be found on the Aquatic Invasive Species website.](#)

Response: Noted. MKI will follow regulatory requirements to minimize the potential introduction of AIS into the marine environment. Note that seismic vessel equipment will only be deployed in offshore, deep waters, and will be far removed from coastal areas.

FFA-3: Vessel Strikes

Sustainable Fisheries and Ocean Policy (SFOP) would like to highlight that vessel strikes with marine mammals including with Species at Risk (SAR) such as the North Atlantic Right Whale, are possible during project activities. DFO and Transport Canada (TC) have implemented several protective measures to minimize interactions with NARWs and other marine mammals; FFA recommends consulting with these responsible authorities regarding mitigating the potential impacts of project operations on marine mammals.

Response: Noted. The slow survey speed (4-5 knots) of the seismic vessel greatly minimizes the risk of vessel strikes with marine mammals including the NARW.

FFA-4: Noise and Vibration

It is important to recognize that noise and vibration from seismic vessels in combination with air gun use can cause auditory masking, leading to changes in individual and social behavior of marine species, hinder population recruitment and ultimately affect the health of marine ecosystems. FFA recommends that the proponent consult with DFO and TC regarding the potential impacts of anthropogenic noise and vibration introduced by the project.

Response: The effects of underwater noise on marine species including masking have been assessed in the EA and DFO has reviewed the EA and provided their feedback. MKI is committed to a suite of well-established mitigation and monitoring measures to minimize the effects of seismic survey noise on the marine environment.

FFA-5: Ecologically and Biologically Significant Areas (ESBAs)

FFA notes that planned vessel activities will occur in or near numerous identified Ecologically and Biologically Significant Areas. EBSAs are areas that have been identified through formal scientific assessments as having special biological or ecological significance when compared with the surrounding marine ecosystem. FFA recommends that the proponent consider important ecological features identified through EBSAs when planning and assessing project activities. Information on key

features and locations of each EBSA can be found on [Ecologically and Biologically Significant Areas - Open Government Portal](#).

Response: Noted. The EA has assessed the effects of Project activities on Sensitive Areas including EBSAs and DFO has reviewed the EA and provided comment.

7.0 Department of National Defense (DND)

DND-1

Naval operations are undertaken by the Department of National Defence in waters surrounding Nova Scotia and Newfoundland; thus, increasing the potential for cumulative effects in MKI's Study Area. It is recommended that cumulative effects of seismic and naval sonar be assessed and discussed in the report, and any updates of the report.

Response: The cumulative effects section did include consideration of naval vessel activities under marine transportation with focus on vessel traffic. It is possible that sound from naval sonars and sound from airgun arrays may cumulatively affect marine species; of particular concern are marine mammals including species at risk. The DND provides notice of naval training operations in the Notices to Mariners (NOTMAR) and they monitor NOTMAR for the purposes of 'deconfliction' with other ocean users including seismic survey operators (MARLANT Safety and Environment, pers. comm., 11 March 2026). At the request of DND, MKI will contact MARLANT Safety and Environment in advance of seismic surveys to provide further opportunities for deconfliction. Future EA Updates will include further consideration of naval training activities in a given year relative to known seismic survey areas and timing.