



WOLASTOQEY NATION IN NEW BRUNSWICK

Matawaskiye • Neqotkuk • Wotstak • Pilick • Sitansisk • Welamukotuk

[DELIVERED VIA EMAIL]

Ref: WNNB [091-21]

October 7, 2021

Re: Comments on the Bay du Nord Environmental Assessment (“EA”) and Draft Conditions

The Wolastoqey Nation in New Brunswick (“WNNB”) represents the six Wolastoqey/Wəlastəkwey communities in New Brunswick (Madawaska Maliseet, Tobique, Kingsclear, Woodstock, St. Mary’s and Oromocto First Nations). WNNB is not the rights holder, nor are we the body to which the Duty to Consult is owed. WNNB provides technical advice to Wolastoqey/Wəlastəkwey leadership and their respective Resource Development Consultation Coordinators (“RDCCs”) on resource development matters that relate to our Wolastoqey/Wəlastəkwey constitutionally protected rights. WNNB also acts to protect and promote traditional lands, ceremony, cultural practices, and language.

The WNNB and communities have been engaged on the potential Bay du Nord Production project (the “Project”), you can find attached the review completed by Management and Solutions in Environmental Science (“MSES”).

Woliwon / Wəliwən,

<Original signed by>

Shyla O’Donnell

Consultation Director, Wolastoqey Nation in New Brunswick

cc: Gordon Grey, Impact Assessment Manager, WNNB
Russ Letica, RDCC, Matawaskiye (Madawaska Maliseet First Nation)
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Richard Francis, RDCC, Pilick (Kingsclear First Nation)
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Memo

To: **Gordon Grey, WNNB** File no: 2033
gordon.grey@wolastoqey.ca

From: Shannon Gavin (shannon.gavin@mses.ca)
Tel: (403) 241-8668
Date: September 13, 2021

Subject: Bay du Nord Development DRAFT Conditions and Environmental Assessment Review

Dear Gordon,

Thank you for the opportunity to continue providing scientific advice to the Wolastoqey Nation in New Brunswick (WNNB) on Equinor Canada Limited's (Equinor) Bay du Nord development project. Previously, Management and Solutions in Environmental Science (MSES) conducted a third-party technical review of the Environmental Impact Statement (EIS) for the proposed Project and prepared Information Requests (IRs) for submission to the Impact Assessment Agency of Canada (the Agency). Recently, the Agency conducted a federal environmental assessment (EA) of the Project to evaluate whether the project is likely to cause significant adverse environmental effects. A summary of their main findings in an Environmental Assessment Report (EAR) and draft conditions have been released. On behalf of the WNNB, our fisheries expert, Dr. Derrick deK. Varent reviewed these documents to evaluate how the Agency's conclusions and conditions may or may not address concerns related to impacts on fish resources that were raised by MSES in the initial technical review of the EIS.

Background Information

Equinor is proposing to develop significant discovery licenses (SDL) Bay du Nord and the Baccalieu which will comprise the core Bay du Nord development area. The Project is located in the Flemish Pass area of the Canada-Newfoundland Offshore Area, approximately 500 km east-northeast of St. John's, Newfoundland.

The purpose of the project is to extract, produce, and transport offshore oil and gas resources to market. The proposed project will be a subsea development with up to 40 wells within five locations in the core Bay du Nord development area and up to 20 future wells in undefined locations outside of the core area.

The Project includes all activities, including supporting activities, associated with offshore drilling and production facilities.

General Comments- Project Effects on Marine Fish

The Agency's review of the Fish and Fish Habitat sections of Equinor's EIS for the Bay du Nord project identified many of the same types of concerns held by the WNNB but with not necessarily the same lines of evidence or inquiry. Of WNNB's 44 issues, the Agency directly addressed 19 and indirectly addressed another 8 (Table I below). The Agency's conclusions and our technical review comments on the quality of the work presented in the EIS overlapped. Further, many of the follow up actions prescribed to Equinor to address a large proportion of WNNB's concerns, involved either directly including the WNNB in consultation for future planning or directing future monitoring to verify many of the underlying assumptions and models found in the EIS. Lastly, many of the direct requests from WNNB were for changes in the EIS in the form of new figures, new descriptions, and more references. The Agency responded generally to these requests in the EAR's Appendix C (pg. 220) that at this stage of the review, no further changes to the EIS are warranted.

The Agency acknowledged that the project's greatest potential impacts would be directed at fish and fish habitat through the discharge of drilling waste, the installation of seabed structures, the discharge of produced water, and the generation of underwater sound. Of these, the agency and Fisheries and Oceans Canada (DFO) took most issue with Equinor's characterization of the potential effects of drill waste discharge. First, the Agency pointed out that Equinor did not include all the sources of water-based muds and miscalculated the potential exposure time as 36 hours rather than 288 hours. Concurring with DFO, the Agency also believed that the geographic extents of the effects are likely larger than reported in the EIS. Second, the Agency concluded that the potential burial effects from drill cuttings were likely greater than estimated by Equinor. The WNNB's concerns were focused on similar questions but directed more so to the inability to properly evaluate these types of effects from the information presented in the EIS. In addition, the Agency concluded that Equinor's estimate of a recovery timeframe of 3 to 10 years for benthic biota was unrealistic because this assumption is based on shallow water growth rather than the deep water where the Project Area is located. In response to these concerns, the Agency directed Equinor, as part of the project's Approval Conditions, to conduct sea-bed surveys in a greater extent than the modelled zones of influence from drill waste discharge prior to the commencement of sea-bed installations.

The EAR reports and acknowledges the concerns raised by all Indigenous groups (including WNNB) on the project's potential effects on migratory species. In this regard, the Agency agrees with the WNNB that the presence of migratory species within the project area is not well known, however, in Section 4.1.4, the Agency notes that they believe that negative impacts on Atlantic salmon due to the project are unlikely to occur (with a moderate level of certainty). Given the uncertainties related to the migratory patterns of the species, Equinor will be required to financially contribute to the Environmental Studies Research Fund (ESRF) program. The ESRF is a joint board comprising industry, government and public members which is allocating \$12 million in research funds over four years to study Atlantic Salmon. The objective of the project is to determine when, where, and for how long Atlantic salmon from three different life stages (juvenile post-smolt, post-spawned kelt, and multi-sea winter adults) are present in the

eastern Canadian offshore regions. The Agency does not mention whether other migratory species (e.g., American Eel) that are species of importance to WNNB, will receive targeted funding for scientific inquiries or monitoring. Although the Agency conveyed that the WNNB was not sure how their traditional knowledge on migratory species had been incorporated into the EIS, that information on these species was lacking in the species at risk section, and that the species should have been included in the EIS' table 9.8 – these concerns remain outstanding. The Agency did include Atlantic Salmon, Atlantic Bluefin Tuna and American Eel within the EAR's species at risk table in Appendix D. While the issue of how to ensure that Indigenous traditional knowledge is better incorporated into Equinor's EIS is left unaddressed, we note that the same ESRF fund has a project focusing on two-eyed seeing in offshore oil development. **We recommend that WNNB discuss how (if they choose too) they could be involved in the ESRF project to ensure that their knowledge and experiences help improve upon the understanding of Atlantic salmon life history. We also recommend that WNNB discuss with the Agency how the ESRF project plan will address the challenges found in Equinor's EIS as a case study.**

The WNNB requested additional information on the baseline data collection, including a better representation of the Canadian and EU scientific trawling datasets and the provision of the most recent sources from the scientific literature on species distributions. While the Agency did not ask for the same types of information, they noted, along with DFO, Première Nation des Innus de Nutashkuan, Mi'gmawe'l Tplu'taqnn Incorporated, Kwilmu'kw Maw-klusuaqn Negotiation Office and WNNB, that there were concerns over the quality and quantity of baseline data. DFO in particular raised concerns about baseline information (e.g., maps, relative abundance, fish size). As such, the existing baseline data is considered inadequate and benthic surveys within the project area will be required.

In the review of the EIS, the WNNB noted that the offset areas for residual impacts to fish and fish habitat needed to be verified. The WNNB had noted that an additional 2.5 km² of habitat was missing from the offset plan. The Agency noted a much larger area requiring offsets if DFO issues a permit under the Fisheries Act. However, DFO has requested more detailed plans before making that determination. In a similar vein, the WNNB had requested that Equinor consider the ecosystem level effects that the project could cause on the marine ecosystem. DFO stated that the cumulative effects section in the EIS did not account for the connectivity among vulnerable habitats in the marine environment, which is an important ecosystem level effect.

The Agency did not discuss in detail the effects of produced water on local biota. The agency does not discuss it in the fish and fish habitat section, and in Section 5.3.1 of the EAR (page 133), it explicitly states that cumulative effects of produced water were not considered. The WNNB had listed roughly 10 requests related to the scope and thresholds for produced water plumes in dispersion modelling, and while the Agency does not necessarily answer them all, they lend direct support to the Equinor's model and thresholds in Appendix C of the EAR as a direct response to WNNB. The Agency believes that it is not possible to judge the effects of many of the contaminants from the routine operations of the project (e.g., drilling, produced water) on the local biota in the absence of natural variability data, and species tolerance and distribution data. Another concern that was not addressed in the same level of detail was the modelling of the impacts of a potential spill. While the WNNB had another 10 requests related to predicting the effects of spills, the Agency stated that the risk of large oil spills during production drilling

is low, and thus the Agency focused more so on contingency planning in the event of an accident. The Agency tries to address concerns in the draft conditions where follow-up items include Equinor developing a Spill Response plan in consultation with WNNB (Section 7.7 DRAFT Conditions) and monitoring of environmental effects on marine resources, including integrating those results into a human health risk assessment (Section 7.10 DRAFT Conditions). A Spill Response Plan should be developed with WNNB as early as possible in this process to ensure that appropriate measures are developed that capture outstanding knowledge gaps and concerns. This is addressed in approval conditions (Section 7.7) that indicate no work can commence until the final plan has been submitted to Indigenous groups.

Overall, the Agency concluded that the project is not likely to cause significant adverse environmental effects, as long as, the implementation and effectiveness of the mitigation measure are successful. Mitigations listed within the draft conditions that may address WNNB's concerns fully or partially include:

- Section 2.3 and 2.4 – consultation directives with Indigenous groups
- Section 2.6 and 2.9 – the development of monitoring programs that directly address the baseline data deficiencies within the EIS and the effectiveness of mitigation
- Section 2.14 – publication on the internet of the seabed investigation survey results, the Spill Response Plan, the Spill Impact Mitigation Assessment, and monitoring and follow-up results for marine mammals, sea turtles, and fish and fish habitat
- Section 3.7 – design a seabed investigation survey and a marine turtle / mammal monitoring program with Fisheries and Oceans Canada
- Section 3.14 – hire qualified individuals to verify the accuracy of the environmental assessment and effectiveness of mitigation measures as they pertain to the effects of drill cuttings discharges and infrastructure installation on benthic fish and fish habitat.
- Section 3.14.3 – develop and implement, in consultation with Indigenous groups, Fisheries and Oceans Canada and the Board, follow-up requirements to verify the accuracy of the environmental assessment as it pertains to the effects of underwater sound emissions on fish, including marine mammals, taking into account all project sound sources.
- Section 3.15 – contribute to research on Atlantic Salmon
- Section 7.2 – develop a physical environment monitoring program that meets or exceeds the requirements of the *Offshore Physical Environmental Guidelines* (September 2008).
- Section 7.7 - prepare a Spill Response Plan in consultation with Indigenous groups. No works can commence until the final plan has been submitted to Indigenous groups.
- Section 7.10 – Spill Response plan may include monitoring the environmental effects of spill on marine resources and measuring contamination levels that could be integrated into a human health risk assessment.

Table 1. List of MSES Technical Review Information Requests for Equinor’s EIS, and whether the Agency addressed them in the EAR and draft Conditions. Those in bold font indicate concerns that remain outstanding.

WNNB Original Technical Review Issue	Comments directly addressed	Comments indirectly addressed	Issue addressed through other means
Species distribution survey data and distribution maps	1 of 6	4 of 6, the EAR Appendix C list WNNB’s concerns and agrees that further surveys are required.	Yes, Agency agreed that baseline data was considered inadequate. Conditions require more surveys to be completed.
Key species identified by Indigenous Groups missing from Chapter 9	2 of 2	All directly addressed	All directly addressed
Presentation of Dispersed Oil from Produced Water	0 of 3	0 of 3	No
Scope and thresholds for produced water plume dispersion modelling	7 of 7	All directly addressed	Yes, in Appendix C the Agency argues for the proponent’s model, citing international conventions, and clarifying the proponent’s report.
Predicted impact of produce water discharge on Atlantic salmon	0 of 3	3 of 3, the Agency also acknowledges that any information on migratory species is uncertain.	Yes, directing the proponent to fund studies on these questions.
Atlantic salmon migration routes	0 of 5	0 of 5	Yes, directing the proponent to fund studies on these questions.
Impacts to Redfish Species	1 of 2	0 of 2	Yes, in Appendix C of the EAR, the Agency argues that these finfish will relocate away from disturbance.
Figure clarity of seabed deposition and water column concentration maps	0 of 1	1 of 1, while the Agency is not requesting better resolution maps as we had requested, the Agency states that they do not believe the outputs of the models that made the maps	Indirectly addressed

Population level effects of a spill	4 of 4, directly addressed in Appendix C.	1 of 4, the Agency acknowledges possible ecosystem effects of a spill through disruption of connectivity	No, the Agency states that spills are unlikely, and focussed on monitoring.
Spill models and predicted dissolved hydrocarbon concentrations	0 of 2	0 of 2	No, the Agency states that spills are unlikely
Impact assessment of a worst-case scenario spill event	0 of 4	0 of 4	No, the Agency states that spills are unlikely
Impacts to Roundnose Grenadier within COSEWIC limits	2 of 2, the Agency states that they considered this species but doesn't elaborate (EAR, Appendix C)	1 of 2, the Agency acknowledges that a better understanding of distributions is required for all species within the project area.	Yes, baseline data was considered inadequate, and more surveys will be required.
Offsetting area under the Fisheries Act should be higher than 7.0 km ²	1 of 1	Directly addressed	Directly addressed

Specific Technical Comments and Additional Recommendations

I. Issue: No discussion of produced water as a cumulative effect for fish	
Reference:	EAR, Section 5.3.1, pg. 133
Preamble:	The technical review of the EIS listed multiple concerns about Equinor's characterization of the effects of produced water on fish. The Agency briefly responded directly to these comments within Appendix C of the EAR and mostly validated Equinor's approach. However, we note that produced water is given a more stringent review by the Agency as it pertains to sheens on the water, and the oiling of birds. It does not seem logical that the birds should be susceptible to oil sheens, yet the effect on fish is negligible. At the very least, there could be cumulative effect, as most of these birds are attracted to the drilling platform to feed. Although the Agency states that cumulative effects on fish from produced water were considered, no further discussion is presented. Given WNNB's concerns on this issue, we request that a discussion on this topic be supplied.
Request:	Please supply a discussion on the Agency's considerations of cumulative effects of produced oil on fish and fish habitat.

2. Issue: Difference in opinions on project effects going forward	
Reference:	EAR, Section 4.1.3, pg. 37
Preamble:	The EAR acknowledges in various locations that the Agency has found deficiencies in Equinor’s EIS in terms of the adequacy of baseline data, the underestimation of project impacts and at times lack of clarity in the presentation of impacts. For some of these deficiencies, the Agency recommends follow up monitoring programs, and we note that some of these follow-up programs must engage with Indigenous communities. Some of these deficiencies are also addressed by Fisheries and Oceans Canada (DFO) in the “views expressed” section, as well as peppered through-out the fish and fish habitat section. Further, DFO states that more details will be required before determining whether a Fisheries Act Authorization is required. It is not clear whether the intent of the Agency is to let this next review process examine any new information or arguments that address the deficiencies rather than delay the approvals of the project until the EIS can be revised. If so, it is important to identify which issues are expected to be reviewed and evaluated by DFO.
Request:	<ul style="list-style-type: none"> a) Please explain how outstanding deficiencies in the EIS will be addressed by the regulatory boards, with special focus on fish and fish habitat, and cumulative effects. b) Please list the main outstanding concerns or requests for information which will be evaluated by DFO.