

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6420 000 010/001
NIRB File: 22XN052



September 16, 2022

via email at: info@nirb.ca

Mia Otokiak
Technical Advisor I
Nunavut Impact Review Board
29 Mitik Street
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Dear Mia Otokiak:

RE: 22XN052 – Nunavut Nukkiksautiit Corporation – Anuriqjuak Nukkiksautiit Project – NIRB Screening

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) regarding the above-mentioned screening.

ECCC is providing technical, science-based information and knowledge based on our mandate pursuant to the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*. These comments are intended to inform the assessment of this project's potential effects in the receiving environment and on valued ecosystem components. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

1. Air Emissions Mitigations

Reference(s)

- Biophysical Impact Assessment High Displacement Renewable Energy Project Final Report, Section 5.2, Table 6.1

Comment

The Air Quality Valued Environmental Component lists among the mitigation measures the intention that all heavy construction equipment will be equipped to reduce air emissions. It is



not evident how this mitigation relates to specific engine emission tiers, and whether this mitigation will also apply to truck traffic that is routed through the hamlet.

ECCC Recommendation(s)

ECCC recommends that the Proponent confirm the intention that construction and truck vehicles will be equipped with Tier 3 or 4 engines where possible.

2. Incorporating Mitigation Measures into Management Plans

Reference(s)

- Executive Summary
- Biophysical Impact Assessment High Displacement Renewable Energy Project Final Report, Section 5.2, Table 6.1 & Table 6.2
- Anuriquak Nukkiqsautiit Project - Project Proposal, Section 9

Comment

Per the Executive Summary, “A biophysical impact assessment was completed to assess the potential impact the Project may have on the valued ecosystem components (VECs) of the biophysical environment. The assessment recommended mitigation measures for any potential residual effect. These mitigation measures will be integrated with the project execution during construction and operations. The results of the impact assessment indicate that there are no significant impacts expected on the biophysical environment.”

In the Biophysical Impact Assessment report, potential environmental effects and corresponding mitigation measures are presented in summary tables (Table 6.1 – Summary of Construction Phase Environmental Impacts, Mitigation Measures and Residual Effects and Table 6.2 – Summary of Operation Phase Impacts, Mitigation Measures and Residual Effects), with mitigation measures listed in bullet form. It will be important to incorporate these mitigation measures into relevant management plans, along with additional details. Management plans should contain a greater level of detail regarding mitigation measures to support a fuller understanding of the project and provide personnel with clear and detailed instructions and guidance. ECCC notes that Section 9.0 (Monitoring and Management Plans) of the Project Proposal lists anticipated management plans.

ECCC Recommendation(s)

ECCC recommends that the mitigation measures listed in Table 6.1 and Table 6.2 of the Biophysical Impact Assessment document be incorporated into relevant management plans, with a greater level of mitigation detail provided in the plans.

Topics to be addressed by management plans include but are not limited to: construction, operation and maintenance, erosion and sedimentation control, waste management, fuel and chemical storage and management, spill prevention and response, monitoring, QA/QC, and closure.

3. Water Quality Monitoring

Reference(s)

- Anuriqjuak Nukkiqsautiit Project - Project Proposal, Section 9

Comment

Section 9.3 (Additional Monitoring Plans) of the Project Proposal indicates that management and monitoring plans will incorporate water quality, although details are not provided. In addition to incorporating water quality aspects into relevant management and monitoring plans, it will also be important to clarify how the effectiveness of mitigation measures will be monitored.

ECCC Recommendation(s)

ECCC recommends that the following information be provided in relevant management and monitoring plans:

- Water quality monitoring details;
- Procedures to monitor the effectiveness of mitigation measures (for example, monitoring effectiveness of erosion and sedimentation controls), with corresponding management triggers and response actions; and
- Procedures to monitor the effectiveness of spill prevention measures (for example, monitoring effectiveness of containment of fuels, chemical and wastes), with corresponding management triggers and response actions.

4. Aquatic Environment

Reference(s)

- Biophysical Impact Assessment High Displacement Renewable Energy Project Final Report, Section 4.2.5

Comment

Per Section 4.2.5 (Aquatic Resources) of the Biophysical Impact Assessment report, project activities will take place in proximity to lake, stream and wetland habitats located south of Sanikiluaq. The report notes that the proposed access road (i.e., existing trail to be upgraded) and ten turbine sites are located adjacent to watercourses that are likely to support fish. Aquatic habitat assessments on watercourse crossings within the Project footprint determined that the habitat is suitable to support fish communities. The report also notes that the main watercourse within the Project area generally flows north towards Sanikiluaq Lake, with established access roads/trails along either side of the stream channel.

Subsection 36(3) of the *Fisheries Act* prohibits the deposit of a deleterious substance in or near fish-bearing waters. Given the project's proximity to surface waters, it is important that the aquatic environment be protected during all project stages.

ECCC Recommendation(s)

ECCC recommends that the Proponent clarify how the aquatic environment will be protected during each stage of the project. All relevant components (for example, access road, watercourse crossings) should be addressed. Such information should be incorporated into relevant management, monitoring and contingency plans.

5. Wildlife Management Plan

Reference(s)

- Anuriqjuak Nukkiqsautiit Project - Project Proposal (PP), Executive Summary, Table 8, Section 9.1 – Wildlife Management Plan
- Biophysical Impact Assessment (BIA) High Displacement Renewable Energy Project, Tables 6.1 and 6.2

Comment

The Project Proposal states that that a Wildlife Management Plan will be developed in consultation with stakeholders and Sanikiluaq residents at a later time.

A Wildlife Management Plan is a key document for reviewers to ensure measures are adequately identified to minimize and monitor impacts to wildlife.

ECCC notes that several revisions are required to the mitigation measures listed for birds in Tables 8 (PP) and 6.1 (BIA), e.g. Canadian Wildlife Service (CWS) permitting requirements, procedures and notification information for any birds found injured or dead, etc. Table 6.2 (BIA) also includes the mention of post-construction monitoring program for birds, but no further details are provided.

ECCC Recommendation(s)

ECCC requests that the Proponent consult with the Department, along with all other interested parties, in the review of the forthcoming Wildlife Management Plan.

6. Biological Environment – Bird Baseline Information

Reference(s)

- Biophysical Impact Assessment High Displacement Renewable Energy Project, Section 4.2.2. – Birds, Bats, and Terrestrial Fauna

Comment

ECCC is unable to fully assess the potential impacts of the project related to migratory birds and avian species at risk as some baseline information was not provided as part of this review (Breeding Bird Surveys – 4.2.2.5 and Acoustic Monitoring - 4.2.2.6). In both sections, there is mention of a forthcoming supplementary report.

For survey results that were included as part of this review, the information on survey effort (i.e., exact dates and survey periods) and detailed counts of each survey were not provided in a format allowing ECCC to determine whether sufficient bird baseline was collected and its adequacy. This is particularly important to inform whether the timing of migration surveys captured the peak in local and regional migration movements.

ECCC is also concerned with potential mistiming of the winter resident bird surveys and minimal survey effort (i.e., a single survey in December and February). These surveys do not allow the full assessment of impacts to the resident common eider population in the Belcher Islands, which is of national significance. Section 4.2.2.2 notes that movement patterns of birds among the polynyas have not been well studied and that the largest congregations of birds in polynyas and leads were previously observed in February and March.

ECCC Recommendation(s)

ECCC recommends that the Proponent provide additional details on survey effort and individual survey counts for the winter and migration bird surveys.

ECCC recommends that the Proponent conduct additional winter resident surveys to allow a better assessment of risks to the resident common eider population.

ECCC requests that the Proponent consult with the Department, along with all other interested parties, in the review of the forthcoming supplementary report containing the breeding bird point count results and findings from the acoustic monitoring.

7. Vegetation Clearing – Impacts to Birds

Reference(s)

- Anuriqjuak Nukkiqsautiit Project - Project Proposal, Table 8.
- Biophysical Impact Assessment High Displacement Renewable Energy Project, Section 2.6.1

Comment

The initial construction activities will require grubbing and access road construction beginning in July 2022.

Table 8 in the Project Proposal indicates that nest searches will be conducted to determine the presence of nesting migratory birds prior to clearing activities occurring within the nesting period of 1 May to 15 August. Table 8 also states that CWS will be contacted for guidance if a nest is discovered and that a buffer may be required until young have left the area.

Determining the presence of nesting migratory birds is important to reduce risks, but active nest searches are generally not recommended by ECCC as the ability to detect nests is often very low.

A buffer zone must be determined by a setback distance appropriate for the species, the intensity of the disturbance, and the surrounding habitat. Proponents are encouraged to contact CWS, at cwsnorth-scfnord@ec.gc.ca, for general guidance for migratory bird and assistance determining appropriate setback distances.

ECCC Recommendation(s)

ECCC recommends the Proponent avoid vegetation clearing (i.e. grubbing) during the general nesting period of May 1 to August 15.

If avoidance during the general nesting period is not possible, ECCC recommends the Proponent confirm there are no nesting migratory birds in the area prior to clearing in accordance with ECCC's [Guidelines to Avoid Harm to Migratory Birds](#).

Specifically, ECCC recommends that the Proponents use non-intrusive search methods, conducted by a trained and experienced observer, to increase the effectiveness of surveys and also to prevent disturbance of migratory birds while they are nesting.

For guidance related to migratory birds, ECCC recommends the Proponent contact the Department at cwsnorth-scfjord@ec.gc.ca.

8. Transmission Lines

Reference(s)

- Anuriquak Nukkiksautiit Project - Project Proposal, Section 3.3.4, Figure 1
- Avian Power Line Interaction Committee (APLIC). 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. Edison Electric Institute. Washington, D.C.

Comment

The Project includes the installation of a transmission line that aligns with the access road, when possible, but also crosses and intersects adjacent waterbodies over its span (Figure 1, Project Proposal).

Transmission lines are a known source of mortality to migratory birds and avian species at risk due to collisions and was rightly identified in Table 8 (p.51, Project Proposal) as a potential impact. However, the proposed mitigation measures are unclear for this project component and reviewers are referred to the wind turbine operation section of Table 8.

ECCC notes that the most vulnerable avian species for collisions are those with large wingspans and body mass. Birds with larger body mass such as waterfowl (e.g. swans, geese, ducks, and cranes) may have increased difficulty navigating quickly to avoid difficult to see obstructions such as power lines.

ECCC Recommendation(s)

ECCC recommends the Proponent further assess areas along the transmission line span that might require site-specific mitigation measures.

ECCC also recommends the Proponent review and consider APLIC guidance to minimize the potential for bird collisions along the transmission line.

If you need more information, please contact Stephinie Mallon at Stephinie.Mallon@ec.gc.ca.

Sincerely,

[original signed by]

Victoria Shore
Senior Environmental Assessment Officer

cc: Jody Small, Acting Head, Environmental Assessment North (NT and NU)