

TECHNICAL REVIEW SUBMISSION
by
SAYISI DENE FIRST NATION
to the
NUNAVUT IMPACT REVIEW BOARD
Concerning
Agnico Eagle Mines Limited's "Saline Effluent Discharge to Marine Environment" Project Proposal

NIRB File No.: 11MN034
November 12, 2020

The Sayisi Dene First Nation (formerly the Fort Churchill Indian Band) has long-standing and deep rooted cultural, social and economic connections to the Qamanirjuaq barren-ground caribou which continue to the present day. As a result any development that has the potential to impact the demographics, migratory movements, behaviour and/or habitat of the herd could adversely affect Sayisi Dene First Nation members.

Sayisi Dene First Nation welcomes the opportunity to participate in the review of the Agnico Eagle Mines Limited's "Saline Effluent Discharge to Marine Environment" Project Proposal by the Nunavut Impact Review Board. Canada approved participant funding for Sayisi Dene First Nation to participate in the NIRB review due to the Project's potential effects on the Qamanirjuaq caribou herd and its importance to Sayisi Dene First Nation members. Sayisi Dene First Nation's standing to participate in this matter is provided by right under the Nunavut Agreement and the *Nunavut Planning and Project Assessment Act*. Sayisi Dene First Nation's participation will focus primarily on potential impacts to the Qamanirjuaq caribou herd and its habitat as a result of the proposed project.

It should be noted that as a result of the declining trends being reported for mainland populations across Canada, the Federal government's Committee on the Status of Endangered Wildlife in Canada changed the status of barren-ground caribou from "Not at Risk" to "Threatened" in 2016. And that the Beverly and Qamanirjuaq Caribou Management Board, of which the Sayisi Dene First Nation is a member, has rated the Qamanirjuaq caribou herd's vulnerability as "medium-high". The results of the 2017 population survey undertaken by the Government of Nunavut indicate that the herd has declined from 2008 and the rate of decline was calculated to be about 2% per year.

The technical comments outlined below cover areas for which Sayisi Dene First Nation seeks clarification and further detail including:

- Caribou Crossings/Deflections
- Trends for Caribou within FEIS Predictions
- Spills or Accidental Release of Treated Groundwater
- Reclamation Plan

Detailed Comments / Recommendations

Review Comment Number: SDFN-01

Subject/Topic: Caribou Crossings/Deflections

References: 2020 Waterline FEIS Addendum Appendix IR-8 (Sections 3.0); AEML Responses to IR Requests re August 2020 FEIS Addendum (GN-IR-03, 04 & 05; KivIA-IR-8; KWB-IR-6, NIRB-IR-09 & 011)

Specific Comment:

An assumption has been made that if the waterlines are constructed alongside the All Weather Access Road (AWAR) and covered with similar materials as those used to construct the road, caribou can be expected to cross the road-waterline structure in the same manner that they cross the existing AWAR. And as the waterlines will be constructed within the existing Project footprint, it is further assumed that the conclusions of the effects assessment done for the AWAR in the 2014 FEIS and 2018 FEIS Addendum continue to apply. As a result two primary effects pathways specific to caribou identified in the August 2020 FEIS Addendum (before the commitment was made to cover the waterlines) were not carried forward to the October 2020 Waterline FEIS Addendum (Appendix IR-8: “Anticipated Ecosystem and Socio-economic Impacts Associated with Covering the Waterline”) and only effects associated with the construction phase were assessed. The two primary pathways excluded were: 1. Sensory disturbance can change the amount of different quality habitats and alter movement and behaviour; and, 2. Disruption or alteration of migration routes from the presence of the waterline.

The assessment done in the 2014 FEIS was based on a limited amount of technical information from surveys conducted in 6 years between 1998 and 2012, and was collected during a period when use of the Regional Study Area (RSA) and Local Study Area (LSA), as indicated by collared caribou, appears to have been extremely low. This period was also prior to the construction of the AWAR. In the 2018 assessment it was noted that caribou numbers and use of the RSA and LSA had increased in recent years, while monitoring programs specific to caribou crossings and deflections in relation to the AWAR were only just being started.

There are now additional data available related to caribou crossings and deflections associated with the AWAR as a result of TEMMP monitoring programs which have been ongoing since 2017. SDFN believes these additional data need to be considered to support the assumption that the 2014 FEIS and 2018 FEIS Addendum effects assessments can be credibly applied to the project as currently proposed, and to justify excluding consideration of the two primary effects pathways specific to caribou from further assessment.

Recommendation:

SDFN requests that the Proponent provide a concise, consolidated technical description/report on the crossings and deflections of caribou in relation to the AWAR which incorporates data collected since its construction. It is recognized that some of this data has been presented in the 2019 TEMMP Annual Report and in Agnico Eagle's responses to Information Requests and that further data analysis is planned to be reported in the 2020 TEMMP Annual Report. The report should address the Proponent's assumption that caribou can be expected to cross the road-waterline structure in the same manner that they cross the existing AWAR.

Review Comment Number: SDFN-02

Subject/Topic: Trends for Caribou within FEIS Predictions

Reference: GN-IR-05 (Part 4)

Specific Comment:

Agnico Eagle states that "trends observed to date are within FEIS predictions" in response to a Government of Nunavut Information Request resulting from the August 2020 FEIS Addendum concerning how changes to baseline conditions related to caribou have been reported and integrated into the current assessment. It is unclear what "trends" are being referred to and how they were determined to be "within FEIS predictions". This lack of clarity in this statement increases SDFN's concern with the assumption that caribou can be expected to cross the road-waterline structure in the same manner that they cross the existing AWAR and that as a result the effects assessment and resulting predictions done for the AWAR in the 2014 FEIS and 2018 FEIS Addendum continue to apply.

Recommendation:

SDFN requests that the Proponent explain this statement and provide details of the analysis on which it is based.

Review Comment Number: SDFN-03

Subject/Topic: Spills or Accidental Release of Treated Groundwater

References: August 2020 FEIS Addendum (Section 8.1.2)

Specific Comment:

It is noted in August 2020 FEIS Addendum that, in the event of a spill or a leak from the waterline, the treated groundwater is unlikely to have negative impacts on wildlife because it will meet end-of-pipe discharge criteria and be non-acutely and non-

chronically toxic as per regulated toxicity testing in accordance with Metal and Diamond Mining Effluent Regulations. It is further noted it is possible that non-marine wildlife may consume spilled treated groundwater and may become sick; however, it is anticipated that animals will recognize the source as saline and discontinue consumption. And that any such result is expected to be minor and localized and be limited to a few individual animals.

Caribou from the Qamanirjuaq herd primarily interact with the AWAR during the post-calving period and when there are a significant number of very young and vulnerable caribou calves present. The ingestion of treated groundwater resulting from a spill or accidental release by caribou calves may have more severe repercussions than simply making them temporarily sick. Though it is acknowledged that the potential effect to the caribou population as a whole may be minor because it will be localized and likely limited to a few animals, SDFN is concerned about any preventable potential adverse effect to caribou, be it at the population or individual level. And at the range level SDFN is concerned about the cumulative effects of a potential reduction in productivity resulting from localized but recurring minor events such as this, in combination with other negative effects on caribou occurring across the caribou range over time.

Recommendation:

Given that the statements in the August 2020 FEIS Addendum were general in nature (applying to all non-marine wildlife) and lack certainty (unlikely, possible, anticipate, expected), SDFN recommends the proponent do further research on this subject to determine if there is any additional information specific to caribou, and caribou calves in particular. And that in the interim, should this Project be approved, the Spill Contingency Plan be amended to recognize the potential vulnerability of caribou calves to the ingestion of treated groundwater resulting from a spill or accidental release from the waterlines and measures be incorporated in any site-specific spill management plans to prevent caribou from accessing it.

Review Comment Number: SDFN-04

Subject/Topic: Reclamation Plan

References: August 2020 FEIS Addendum (Section 8.1.7 & Appendix I)

Specific Comment:

There is no reference to the reclamation of the covered waterlines included in the 2020 Waterline FEIS Addendum Appendix IR-8. The Reclamation Plan provided in the August 2020 FEIS indicated that during mine closure, the waterline system will be decommissioned and the pipeline network components will be dismantled, removed and disposed on-site in a landfill.

Recommendation:

It is requested that the proponent outline what, if any, changes are proposed in terms of a Reclamation Plan for the waterlines where they will be aligned with the road and covered.