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Department of Environment
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Ministère de l'Environnement

October 17, 2022

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RE: Non Compliance: Agnico Eagle Mines Project Certificate, GN Annual Review 2021

Dear Terry and Karen,

On June 30, 2022, the GN submitted comments on Agnico Eagle Mine's (the Proponent) 2020 annual report for the Meadowbank and Whale Tail Project to the Nunavut Impact Review Board (NIRB). The GN's comments included recommendations directed to the NIRB and the Proponent aimed at addressing reporting gaps and Project Certificate compliance issues. On August 4, 2022, the Proponent submitted to NIRB a written response. The GN wishes to provide the NIRB with additional comments in response to this August 4 submission.

By way of this letter the GN is notifying both Crown Indigenous Relations and Northern Affairs Canada (CIRNAC) and the Nunavut Impact Review Board (NIRB) inspectors, designated under the Nunavut Planning and Project Assessment Act (NuPPAA), Section. 214, of ongoing Project Certificate No.008 compliance issues related to term on condition 28 of the Project Certificate.

A review of the data provided by the Proponent in the Annual Report shows there were numerous days during the spring and fall migrations when Project roads should have been automatically closed to allow passage of caribou but were not. The project's Terrestrial Environment Management Plan (TEMP) requires that the proponent close roads when numbers of observed caribou exceed specific thresholds in TEMP V.7 Table

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Table 16 June 2019. The set threshold according to the TEMP for the spring Caribou migrations was 12 individuals. Appendix A includes a table illustrating the number of days during the 2021 spring migration in which GSTs for caribou were exceeded yet the roads remained in operation. These days totaled 8 each for the Whale Tail Haul Road (HR) and Meadowbank All-Weather-Access-Road (AWAR). Additionally, there were 3 days during the fall migration (2 for the AWAR and 1 for the HR) where the roads should have been closed but were not.

In its August 21st response to the GN, the Proponent argues that it has implemented decision trees in the TEMP, which dictate when roads should be automatically closed in response to caribou observations. This contradicts the evidence presented by the GN in its comments (including specific dates and caribou observations listed in the 2020 Annual Report).

This is the fourth consecutive year in which the GN has presented evidence of the Proponent's failure to implement the road closure provisions of the TEMP. We have concluded that the Proponent has failed to comply with term and condition 28 of the Project Certificate No. 008.

Additionally, the GN has received a letter of complaint on October 12, 2022, from the Hunters and Trappers Organization of Baker Lake (HTO). Members of the HTO have observed caribou approaching the road and turning back, otherwise known as deflections. This is clear evidence of the barrier posed by the AWAR and the traffic on it. The HTO is requesting a 7-day complete closure of the Meadowbank AWAR. The GN concurs with the HTO's concerns and supports this 7-day closure.

The expectation that caribou protection measures in the TEMP, such as road closures, would be implemented was an important factor in the GN's review of this project and the advice that it provided to NIRB.

The GN recommends that the NIRB provide the Proponent with clear direction on this issue. It is our position that the matter should be investigated by Crown Indigenous Relations and Northern Affairs inspectors, designated pursuant to Section 214 of NuPPAA.

Please feel free to contact Brad Pirie at bpirie@gov.nu.ca.

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Best regards,

Jimmy Noble Jr.,
Duputy Minister, Environment

Cc. Henry Coman, Assistant Deputy Minister

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Appendix 1: GN Comment on Meadowbank and Whale Tail Road Closures Provided on AEM's 2021 Annual Report

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GN AR # 03 – ROAD CLOSURES FOR MIGRATING CARIBOU	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Road Closures for Migrating Caribou
Term and Condition	28 (Project Certificate No. 008)
References	• Agnico Eagle Mines (AEM) Ltd. (2019a). Meadowbank Division Terrestrial Ecosystem Management Plan, Version 7. • Agnico Eagle Mines (AEM) Ltd. (2019b). Submission to NIRB. Final Written Statement Responses Whale Tail Pit – Expansion Project. • Agnico Eagle Mines (AEM) Ltd. (2019c). Technical Comment Responses Whale Tail Pit – Expansion Project. Submitted to the Nunavut Impact Review Board. • Agnico Eagle Mines (AEM) Limited. (2022). Meadowbank Complex 2021 Annual Report, Appendix 47 – Meadowbank and Whale Tail 2021 Wildlife Monitoring Summary Report. • Berger, J. et al. (2008). Protecting migration corridors: challenges and optimism for Mongolian saiga. PLoS Biology 6(7):e165. doi: 10.1371/journal.pbio.0060165 PMID: 18666827 • Berger, J. (2004). The last mile: how to sustain long-distance migration in mammals. Conservation Biology 2004; 18(2):320–31. • Boulanger, J., R. Kite, M. Campbell, J. Shaw and D.S. Lee. (2020). Analysis of Caribou Movements Relative to the Meadowbank Mine and Roads During Spring Migration. Government of Nunavut, Department of Environment, Technical Report Series – No:01-2020. 31 July 2020. • Bolger, D. et al. (2008). The need for integrative approaches to understand and conserve migratory

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	ungulates. Ecology Letters (2008) 11: 63-77. doi: 10.1111/j.1461-0248.2007.01109.x • Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2016). COSEWIC assessment and status report on the Caribou Rangifer tarandus, Barren-ground population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 123 pp. (http://www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1). • Government of Nunavut (GN). (2019). Government of Nunavut comments on the 2018 Meadowbank and Whale Tail Project Annual Report. • Government of Nunavut (GN). (2020). Government of Nunavut comments on the 2019 Meadowbank and Whale Tail Project Annual Report. • Government of Nunavut (GN). (2021). Government of Nunavut comments on the 2020 Meadowbank and Whale Tail Project Annual Report. • Nicholson et al. (2016). Modeling Caribou Movements: Seasonal Ranges and Migration Routes of the Central Arctic Herd. PLoSONE 11: e0150333.doi: 10.1371/ journal.pone.0150333 • Nunavut Impact Review Board (NIRB). (2019). Nunavut Impact Review Board 2018 – 2019 Annual Monitoring Report for Agnico Eagle Mines Ltd.'s Meadowbank Gold Project [03MN107] & Whale Tail Pit Project [16MN056)]. • Wilcove DS, Wikelski M. (2008). Going, going, gone: is animal migration disappearing. PLoS Biology. 2008; 6(7):e188. doi:10.1371/journal.pbio.0060188 PMID: 18666834
IDENTIFICATION OF ISSUE	
During the NIRB's Review of the Whale Tail Pit Project and the Whale Tail Expansion Project (collectively referred to here as the 'Project'), a key concern of parties was the potential for traffic on the Project's roads to disrupt the migration of caribou herds. In response to these concerns, the Proponent adopted a set of caribou protection measures to mitigate potential effects on caribou. These are presented in the	

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Project's Terrestrial Ecosystem Management Plan (TEMP) as a series of caribou decision trees which prescribe specific mitigation measures that will be implemented when caribou are in the vicinity of the Project (AEM 2019a, figures 6-9). A key component of these decision trees is the requirement to automatically close the Project's Whale Tail haul road (HR) or All-weather-access-road (AWAR) to all traffic when caribou above a specific group size threshold (GST) are observed within 1.5 km of a road during either the spring or fall migrations; defined as April 1-May 25th and September 16-December 7th.

The commitment to automatically close Project roads during migration periods is a cornerstone of the Project's caribou protection measures and was a key piece of evidence, presented by the Proponent to the parties and NIRB during hearings on the Project, to provide assurances that impacts of caribou would be mitigated. At various times during the NIRB's proceedings, the Proponent has reiterated its commitment to these caribou protection measures in response to concerns expressed by the GN and other parties that they may not be, or were not being, properly implemented. For example:

> "Agnico Eagle assures all parties that it will fully and consistently implement Caribou Protection Measures (CPMs) specified in the TEMP (Version 7, figure 6 to 9) in response to all observations of caribou, and will provide confirmation of this implementation in its Annual Reports." [emphasis added by reviewer]
>
> (AEM 2019b, response to GN Final Written Submission)

In the Meadowbank and Whale Tail 2021 Wildlife Monitoring Summary Report (AEM 2022), the Proponent claims that the caribou decision trees were implemented throughout 2021 according to the TEMP. This led to the full closure of the HR on 12 days during the spring migration and closure of the AWAR on 27- and 21-days during spring and fall migrations, respectively.

The GN disputes the Proponent's claim that the decision trees were implemented properly in 2021. A review of the data provided by the Proponent in the Annual Report shows there were numerous days during the spring and fall migrations when

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Project roads should have been automatically closed to allow passage of caribou but were not (see table 1 below). The GN is also concerned that the Proponent used alternative traffic management measures, such as partial closures or speed restrictions during periods when roads should have been automatically and fully closed. Finally, the Annual Report does not provide information on how long roads remained closed on specific days and what factors (information, consultations, etc.) led to reopening of the roads.

This is the fourth consecutive Annual Report (covering the Project's entire life to date) for which the GN has expressed concerns about noncompliance with the Project Certificate due to incomplete/inconsistent application of the TEMPs caribou decision trees (GN 2019, 2020, 2021). These caribou protection measures were submitted as evidence by the Proponent during NIRB's Review of the Project and were integral to intervenors' reviews of the Project's Final Environmental Impact Statement (FEIS). Failure to implement them fully constitutes a breach of trust and undermines the integrity of the environmental assessment process in Nunavut. The GN notes that the NIRB has previously directed the Proponent to properly implement the caribou decision trees, stating for example that:

> "..... [T]he Proponent should ensure that road closures as a mitigation measure are being applied according to thresholds established in the TEMP and the definitions of essential and non-essential traffic. This information should be included in the 2019 Annual Report."
>
> (NIRB 2019)

The GN feels that the Proponent is non-compliant with term and condition 28 of the Project Certificate (008) by not fully and consistently implementing the TEMP. The GN urges the NIRB to take immediate action to enforce term and condition 28 of the Project Certificate with respect to these matters. There is growing evidence that migrating caribou are being disrupted by the Project' roads and that the automatic road closures required under the TEMP are able to mitigate this disruption.

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IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE
The Meadowbank and Whale Tail 2021 Wildlife Monitoring Summary Report (AEM 2022) states that: "The decision trees were used throughout 2021." (Section 2.5) And "Road-related monitoring and mitigation were implemented according to Figures 7 and 8 of the TEMP version 7 (Agnico Eagle 2019)." (Section 3.6.5) The GN disputes these conclusions on several counts as follows: 1) In reviewing the road survey data on caribou observations provided in Appendix A of the Report, it is apparent that there were numerous days during the spring caribou migration when either Whale Tail Haul Road (HR) or the AWAR should have been automatically closed but was not (Table 1 below). On these days, totalling 8 and 8 for the HR and AWAR, respectively, caribou above the group size threshold were observed within 1.5 km of a road. Instead of implementing the automatic road closure required under the TEMP's caribou decision trees, the Proponent's response was to implement a "speed restriction" (AEM 2022, appendix A) on these days; a measure that is not part of the prescribed response in the decision trees. During the fall migration, there were 3 days when roads should have been automatically closed but were not (2 for the AWAR and 1 for the HR). 2) For days in 2021 when Project roads were closed for migrating caribou, the report does not provide enough information for reviewers to assess whether closures were managed according to the requirements of the caribou decision trees. For example, the decision trees indicate that upon closure of a road, the Proponent will "[C]onsult daily with KivIA, GN and HTO to discuss options to re-open roads" (AEM 2019a, figure 7 and 8). The report does not provide information on the duration of closures, nor does it provide information on the consultations that took place amongst the KivIA, GN and HTO that led to reopening. It is unclear,

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whether the road closure days presented in table 9 of the report represent 24 hr closures or shorter periods. The duration of closure and the factors that led to each reopening must be provided in annuals reports in-order for reviewers to assess compliance with the TEMP. In this regard, the GN notes a commitment made by the Proponent during the NIRB's review of the Whale Tail Expansion Project, to provide this type of information (AEM 2019c – Response to GN TRC #4).

Table 1. Days in 2021 when caribou, above Group Size Thresholds (GST) in the TEMP (AEM 2019a), were observed within 1.5 km of Project roads and should have triggered automatic road closure. (Source data: AEM 2022, Appendix A)

Road	Date(s) When Caribou Above GST Observed Within 1.5 km of Road.	Road Status
AWAR	April 1	Open
	April 12 and 13	Speed restrictions
	May 7 to 17	Speed restrictions
Whale Tail Haul Road	April 13	Speed restrictions
	April 16	Speed restrictions
	April 17	Speed restrictions
	April 23	Speed restrictions
	April 25	Speed restrictions
	May 6 and 7	Speed restrictions
	May 21	Speed restrictions

There is a growing body of evidence that the migration of regional caribou herds is being disrupted by the Project's roads and that road closures are an effective means of mitigating this impact. For example:

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a) Road survey data for the Project show that a vast majority of migrating caribou are observe on the side of a road facing the on-coming migration. This suggests that caribou movements are being blocked the road and/or its traffic and consequently caribou are concentrating near the road as they attempt to cross it. An example of this is shown in figure 1 using the Proponent's 2019 road survey data for the Whale Tail Haul Road (HR) and AWAR. A similar pattern of caribou distribution is seen in all years for which data are available.

Figure 1. Frequency of caribou observations, made during road surveys, on the east and west sides of the Whale Tail haul road (1a) and All-Weather-Access-Road (1b) during the spring migration. Similar data presented for the Whale Tail haul road (1c) and AWAR (1d) for the fall migration. (Data derived from AEM 2020, Appendices A and B)

Figure 1a.

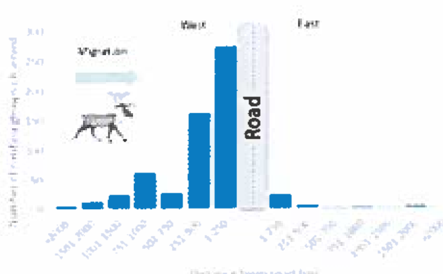


Figure 1b.

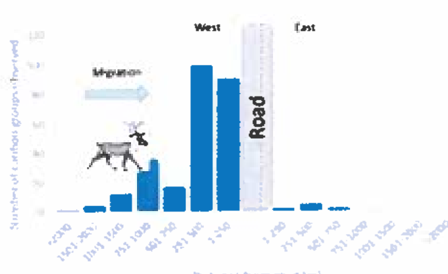


Figure 1c.

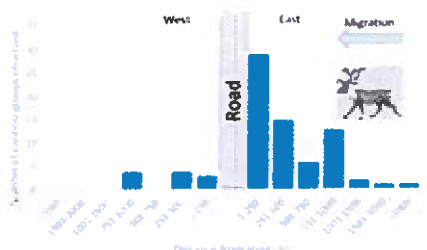
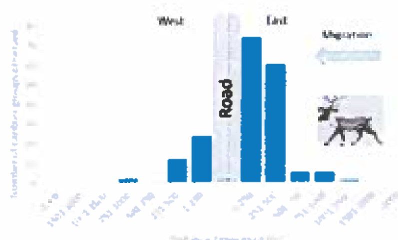


Figure 1d.



(b) In a study of spring migration patterns between 2011 and 2019, Boulanger et al. (2020) found that between 14 and 55% of collared caribou were deflected (i.e., did not cross) by the Project's roads during their migration. Caribou that crossed roads were delayed in crossing and the probability of crossing was significantly higher when a road was closed.

(c) Results from the Proponent's remote trigger camera study found that 12 of the 13 caribou road crossing events detected so far have occurred when the Whale Tail Haul Road was closed to traffic (AEM 2022).

(d) Examining caribou road crossing events recorded during road surveys conducted by the Proponent in 2021, shows that caribou were approximately 4 times more likely to be seen crossing roads when they were closed (See GN

2021 AR comment – *Remote Camera Study*). ven this growing body of evidence regarding impacts of the Project's roads on caribou migration, the need to strictly enforce road closure requirements under the Project's TEMP is emphasised. The disruption of migratory routes by human activity is a recognized threat to barren-ground caribou in Canada (COSEWIC, 2016). As noted by Nicholson et al. (2016) in a study of caribou migration routes: "Natural selection has likely favored caribou that follow migration routes that proved successful during previous years. In such cases, young caribou may learn by following older, experienced animals. Such reliance on traditional migration routes might delay or reduce the ability of caribou to adapt to environmental changes… Restoring migration routes after they have been disturbed or fragmented is challenging." As such, if the Project results in the disruption of caribou migratory movements, the restoration of migration behavior may be delayed beyond the life of the Project or may not be restored. This could have significant consequences for the status of affected herds. For example, in reviewing two centuries of historical data on migratory ungulate species across the world, Bolger et al. (2008) found that in many cases the disruption of migration routes by human activities resulted in rapid population collapse. This, and other research findings, highlights the importance of maintaining connectivity in caribou range (Berger, 2004; Berger et al., 2008; Wilcove and Wikelski, 2008).
RECOMMENDATION(S)
The GN offers the following recommendations with respect to this issue: 1. That the Proponent explain why Project roads were not automatically closed to traffic on the dates listed in table 1 above, as prescribed under the caribou decision trees. 2. That the Proponent explain what is meant by "Speed Restrictions" that were

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implemented on Project roads on the dates listed in table 1 above and where in the TEMP version 7 this is a prescribed response to the observation of caribou above Group-Size Threshold (GST) and within 1.5 km of a road.

3. That the Proponent provide, in all future Annual Reports, details of the duration of road closure for each of the days a Project Road is closed.

4. That the Proponent provide, in all future Annual Reports, details on the consultations that took place and the information upon which reopening was based for each of the days a Project Road is closed.

5. That the Board direct the Proponent to immediately implement the Project's caribou protection measures fully and consistently, in accordance with the approved TEMP's v. 7 GSTs, Distance Thresholds, and decision trees; including the automatic road closures specified in these decision trees (AEM 2019a, Figures 6 to 10).

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