



**PROJECT:** NIRB 125253/03MN107 & 125418/16MN056

**DATE:** May 21, 2020

**SUBJECT:** Kivalliq Inuit Association technical review of the Meadowbank Terrestrial Ecosystem Management Plan Version 8, April 2020

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### SUMMARY

On 22 April 2020 the Nunavut Impact Review Board (NIRB) distributed Agnico Eagle Mines Limited – Meadowbank Division (Agnico Eagle) Terrestrial Ecosystem Management Plan (TEMP) Version 8<sup>1</sup>. The Meadowbank TEMP is a requirement of the Whale Tail Pit Project Certificate No.008, Condition 28, and Meadowbank Project Certificate No.004, Condition 54, for the Meadowbank Gold Mine. Version 8 modifies and updates Version 7, which was developed in consultation with the Terrestrial Advisory Group (TAG) and was released in June 2019 in time for public and final hearings for the Whale Tail Expansion Project. Agnico Eagle states that TEMP Version 8 was a result of commitments made during the Whale Tail Pit Expansion Project, collaborative input from members of the TAG and through annual report reviews, technical reviews, workshops, and discussions through the TAG (TEMP Version 8, pg 1).

The Kivalliq Inuit Association (KivIA) appreciates the opportunity to provide comments on the TEMP Version 8 and to provide suggestions on a path forward. These comments were prepared with the assistance of Aurora Wildlife Research (Kim Poole and Anne Gunn). The KivIA has summarized the meeting minutes, technical memos and correspondence since the November 2019 TAG meeting on the development TEMP Version 8 in a separate letter to the Nunavut Impact Review Board (NIRB) (21 May 2020). Here we examine and comment on the technical aspects of the TEMP Version 8.

Overall, the KivIA is concerned about changes to the TEMP without adequate discussion, collaboration and consensus with the TAG. As per its terms of reference and Project Certificate 008, Amendment 001, Term and Condition No. 27, the TAG was established as *“an advisory group to provide technical oversight on the Project’s mitigation, monitoring, and adaptive management measures related to the protection of wildlife”*.

Below are highlights of the main points of our review. The details related to these main points are provided on pages 3 to 5 of this technical memo.

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<sup>1</sup> Agnico Eagle (Agnico Eagle Mines Limited). 2020. Meadowbank Division – Terrestrial Ecosystem Management Plan. Prepared by Agnico Eagle Mines Limited – Meadowbank Division. Submitted to the Nunavut Impact Review Board. Version 8, April 2020.



- 1) Seasonal **Group Size Thresholds (GST)** to trigger enhanced mitigation were changed to reflect caribou observations only from 2019, ignoring data collected between 2007 and 2018. Although a wider discussion of alternatives to GST as a trigger to changes in mitigation is required, the KivIA believes that the changes to GST as currently reflected in the TEMP Version 8 are not warranted and weaken protective measures for caribou.
- 2) Several changes to the **caribou decision trees** (Figs. 6-9) were made that in KivIA's opinion weaken triggers to effective mitigation. These include the changes to seasonal GST noted above and the removal of mid- and short distance caribou group size triggers replaced solely with reliance on collar data. The KivIA suggests these changes were not discussed in the TAG and are not justified as currently presented in the TEMP Version 8.
- 3) The TEMP Version 8 (pg 47) states that the Whale Tail Approved Project was based on a maximum of **28 days of road closures** (18 for caribou and 10 for severe weather events). While the KivIA appreciates that closure of the Whale Tail Haul Road for an extended number of days is a challenge for mining operations, we suggest that there is insufficient evidence to support capping road closures, and that the TAG was not adequately consulted regarding this new limit on closures.
- 4) **Convoy management** is introduced as a new section in the TEMP Version 8 (section 3.9.1). The KivIA suggests it is premature that daily and weekly convoy management is now written into the TEMP. Although options for convoys were presented by Agnico Eagle in a memo from July 2019<sup>2</sup> and during the November 2019 TAG meeting, the KivIA submits that convoy options have not been reviewed or sufficiently discussed by the TAG.

The KivIA stresses that more collaboration and transparency are required to effectively implement changes to the Meadowbank TEMP and ensure that all relevant parties have been consulted and are in agreement.

KivIA also wishes to stress the importance of local caribou to Kivalliqmiut Inuit. KivIA is concerned that inadequate monitoring and mitigation of potential impacts from the Meadowbank mine may impact local herds, impeding the access of hunters to this important source of country food. The KivIA believes that all parties wish to reduce the risk of impacts occurring to Kivalliq caribou.

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<sup>2</sup> Agnico Eagle. 2019. Technical memorandum: Whale Tail Expansion Project – Commitment 12 – GN-TRC-05 – Whale Tail Haul Road Adaptive Management. 5 July 2019.



### **KIVIA TECHNICAL COMMENTS ON MEADOWBANK TERRESTRIAL ECOSYSTEM MANAGEMENT PLAN VERSION 8**

#### **1) Seasonal Group Size Thresholds (GST)**

Group Size Thresholds (GST) have been used at the Meadowbank mine since 2017 to trigger enhanced monitoring and mitigation. There has been endless debate at TAG meetings and technical hearings on the exact numbers used as seasonal GSTs, the intent of which is to provide enhanced protection for at least 75% of caribou interacting with the Project<sup>3</sup>. Changes to seasonal GST in TEMP Version 8 to trigger enhanced mitigation were in part based on a draft technical memo (Golder 2019a<sup>4</sup>) reviewed by the TAG in late 2019 and found to have several significant deficiencies (e.g., Memo from Aurora Wildlife Research on behalf of the KivA<sup>5</sup>).

As currently presented within caribou decision trees (TEMP Version 8, Figs. 6-9), GST values are critically important for triggering changes in monitoring and mitigation. The KivA is frankly perplexed why Agnico Eagle has taken data from a single year (2019) to develop their revised seasonal GST values for caribou. According to the TEMP Version 8 (pg 47), GST values used in TEMP Version 7 excessively protected 98% of all caribou observed from roadside surveys during 2019, resulting in an excessive number of days of road closure. Subsequently, using data presented in annual monitoring reports, the GN used 2016-2018 sightings from the All-Weather Access Road (AWAR) and showed that the newly proposed fall GST value would have only protected <10% of caribou (GN, unpubl. data). These back and forth debates underline the overly sensitive nature of the GST on an annual basis.

Although a wider discussion of alternatives to GST as a trigger to changes in mitigation is required, the KivA believes that Agnico Eagle's changes to GST reflected in the TEMP Version 8 are not warranted and weaken protective measures for caribou.

#### **2) Changes to caribou decision trees**

The caribou decision trees (TEMP Version 8; Figs. 6-9) trigger changes in monitoring and mitigation at the mine and along the AWAR and Whale Tail haul road. Changes in TEMP Version 8 to seasonal GST are noted above. An additional change in the current TEMP is removal of mid- and short distance caribou group size triggers which were replaced solely with reliance on collar data. Although use of collar data as

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<sup>3</sup> Technical Review Comment GN-06: Caribou group size thresholds. Government of Nunavut final written submission to the proposed "Whale Tail Pit" project. 14 August 2017.

<sup>4</sup> Golder. 2019a. Lorillard Collared Caribou Movements; Implications from Interacting with the Whale Tail Haul Project Road and All-Weather Access Road. Prepared for Agnico Eagle Mines Ltd. by Golder Associates Ltd.

<sup>5</sup> Aurora Wildlife Research. 2020. Technical memo: Kivalliq Inuit Association technical review of Golder 2019. Lorillard Collared Caribou Movements; Implications from Interacting with the Whale Tail Haul Project Road and All-Weather Access Road. 27 November 2019 draft. 6 January 2020.



a trigger reflects a commitment made during the Whale Tail Expansion Project review (GN-FWS-01<sup>6</sup>), the KivIA believed this was supposed to be an additional trigger in the decision trees to provide longer distance data on the potential for enhanced monitoring and mitigation, not a replacement of the original trigger (>GST within 4 km). As noted within TEMP Version 8 (pg 56), *“Roadside surveys provide an ‘early warning’ system of the presence of caribou in proximity to the Whale Tail Pit and Haul Road after the collar data has shown that caribou may be moving towards the Project area and/or collars are within 50 km of the Project area”*, emphasizing that both monitoring methods can feed into monitoring and mitigation. The number of collars active on caribou interacting with the Project will vary with collaring timing and sample size, and at time there may be an insufficient number of active collars to provide robust monitoring of broad herd movements.

On the road decision trees (Figs. 7-8) there are now “consensus/no consensus” options, the implication of which are not clear from a protection of caribou standpoint. No explanation for this addition to the TEMP is provided. The KivIA suggest that discussions on these changes are warranted within TAG.

### **3) Limit to number of days of road closures**

The TEMP Version 8 (pg 47) states that the Whale Tail Approved Project was based on a maximum of 28 days of road closures (18 for caribou and 10 for severe weather events), citing statements from Agnico Eagle at the hearings for the Approved Whale Tail Project (transcripts pg 38, Day 2 pg 173 and pg.439, Day 3; NIRB 2017<sup>7</sup>). While a 28 day limit on road closures may have been Agnico Eagle’s assumption in operation of the Project, to the best of our knowledge a 28 day limit on road closures was not part of the approved Project Certificate nor was it part of any previous version of the TEMP. The number of annual road closure days is determined by weather and by application of the caribou protection measures specified within the TEMP. Any changes to limit the number of days of road closure should be considered as a proposal from Agnico Eagle.

The caribou closure days were further examined in an EDI technical memo from February 2020<sup>8</sup>. This analysis was based solely on spring 2019 data from the haul road (supposedly *“within the range of natural variation”* (pg 4)), used only data from observations west of the road (approaching on migration), varied 12 days of road closure between consecutively once triggered and only for days when GST were met (intermittent closures), and targeting the lead herd or the main herd. The GST for lead herd was set at 80 caribou based on a presentation by Golder (2019<sup>9</sup>, although it is unclear whether this

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<sup>6</sup> Whale Tail Pit Public Hearing, Final Written Statement Responses, and Technical Meetings; NIRB File # 200207-16MN056-Agnico Eagle Final Commitment List-OT2E, 7 February 2020.

<sup>7</sup> NIRB. 2017. Nunavut Impact Review Board’s Hearing Regarding the Review of Agnico Eagle Mines Limited’s Whale Tail Pit Project Proposal 16MN056: Hearing Transcripts. Nunavut Impact Review Board.

<sup>8</sup> Environmental Dynamics Inc. 2020. Caribou Road Crossing Mitigation — Technical Memorandum. 10 February 2020.

<sup>9</sup> Golder Associates Ltd. 2019. Whale Tail Expansion Project: TEMP Mitigation Hierarchy and Operational Flexibility. Winnipeg, Manitoba. November 2019 presentation to TAG.



reflects data from both sides of the road. The GST for main herd was set at 200, although it is unclear where this value originated.

The KivIA suggests that while the presentation in the EDI technical memo is enlightening and does show the efficacy of intermittent closures compared with consecutive closures **if closure days are capped** (emphasis added), the rationale behind allocating different GST values to either lead or main herds and the timing of those allocations are fraught with uncertainty. The KivIA is concerned that relaxed trigger levels for main herds may result in these animals being deflected or delayed from crossing the road, regardless whether the lead herd(s) were able to cross. Also, it was unclear whether the memo was referring to a single lead herd or a lead herd associated with each wave of caribou migration.

Revisions to protection measures for caribou should be discussed and reviewed by the TAG. The KivIA suggests that the TAG was not adequately consulted and does not support this new limit on road closures.

#### 4) Convoy management

Convoy management is introduced as a new section in TEMP Version 8 (section 3.9.1). The section addresses daily, week-day vehicles as well as weekly convoys *“implemented on an as needed basis”* (TEMP Version 8, pg 69) that include haul trucks (designated in the TEMP as non-essential traffic). During the November 2019 TAG meeting (minutes, pg 6/22) as well as in the 26 March 2020 letter to the Baker Lake Hunters and Trappers Organization, Agnico Eagle indicated that beyond their now-set maximum number of shutdown days allocated to caribou (18 days in total), that they will have 2 convoys of haul trucks per day.

Convoying of vehicles, especially large trucks, during caribou migration has the potential to deflect or delay caribou crossing during migration depending on the daily number of convoys. A pilot haul truck convoy program has not been designed or implemented that could test patterns of timing of road closure and convoying to determine whether convoys of large trucks would impact caribou movements. There is no apparent adaptive management or explanation how convoying fits into the tiered mitigation laid out in the caribou decision trees. The KivIA submits that options for convoying have not been reviewed or sufficiently discussed by the TAG to implement at this time, but they are willing to discuss options for moving forward.