

September 28, 2023

EDI Project No: 23C0111

Baffinland Iron Mine Corporation (Baffinland)
2275 Upper Middle Road East, Suite 300
Oakville, ON, L6H 0C3

Attention: Site Department, Environment Department

RE: MARY RIVER PROJECT | Quarry Blasting — Caribou Mitigation Hierarchy

Baffinland is developing and refining its Caribou Mitigation Hierarchy in relation to quarry blasting (i.e., not related to the mine deposit), to address the following commitment with the Qikiqtani Inuit Association (QIA) to establish:

Blasting restrictions within a specified distance to caribou calving and post-calving habitat during the caribou calving period and immediately post-calving, when caribou are present. This restriction should not apply in a manner that prevents essential mining activities at Deposit No. 1 from occurring within the Mary River Mine Site Project Development Area.

The intention is to provide operational tools to inform decision-making that will avoid and otherwise minimize potential adverse effects on Caribou. The following memorandum — adapted from the Project's Terrestrial Environment Mitigation and Monitoring Plan (2023 TEMMP DRAFT_REV.2) — is intended to support these requirements based on existing mitigations at the Project.

Yours truly,

EDI Environmental Dynamics Inc.

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Biologist

MARY RIVER PROJECT

Quarry Blasting | Caribou Mitigation Hierarchy

Prepared For

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REV.3

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Down to Earth Biology



Background and Objectives

Quarry blasting is a localized activity occurring in discrete locations. Quarry activities may be frequent during initial construction phases of roads and laydown pads, graduating to intermittent and infrequent uses during operations and maintenance phases. In addition to blasting, other quarry activities include crushing, and heavy equipment operation. These activities can result in direct wildlife habitat loss (i.e., footprint) and indirect habitat loss (i.e., sensory disturbance).

The Mary River Project (hereafter Project) has identified caribou calving areas in relation to the Potential Development Area (PDA) and the broader Regional Study Area (RSA). The following steps describe the mitigation in place to reduce potential for the Project/activity to interact with and cause adverse effects on caribou (*Rangifer tarandus*) and their habitat — especially during a timing window sensitive for wildlife.

General Mitigations

Avoidance

During planning of the activity — and where possible — a primary mitigation is (1) to select quarry sites that avoid caribou calving areas, and (2) schedule/conduct quarry blasting outside of the caribou calving season (Table 1). The calving period is when caribou can be particularly sensitive to sensory disturbance:

- Active caribou calving areas (i.e. presence of female caribou) will be avoided (Attachment 1);
- Blasting at quarries will not occur within the 15 May to 15 July calving window.

Table 1. Restricted Timing Window for Caribou.

Wildlife/Habitat Features	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Restricted Timing Window
Caribou (Calving + Post-Calving)													15 May – 15 July

Minimization

During the activity, sensory disturbances to terrestrial wildlife will be minimized by:

- Communicating the status of incidental wildlife observations (especially caribou movements) in the Project area.
- Following the caribou decision framework (refer to Terrestrial Environment Mitigation and Monitoring Plan 2023) for Tote Road Traffic where (1) caribou have the right of way, and (2) traffic is to slow down, maintain distance (to the extent possible) and even stop to enable group crossings.

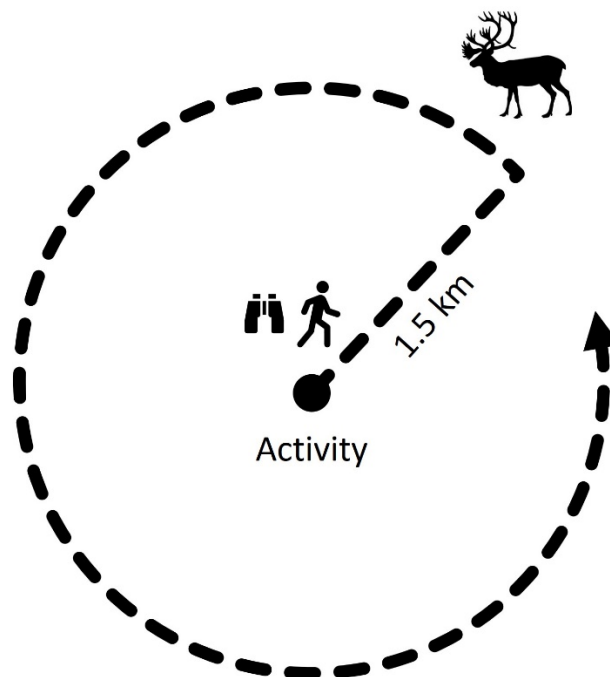


Minimization (Continued)

- Completing a pre-activity wildlife clearance survey (1.5-km area sweep) to verify occurrence of wildlife and wildlife indicators.
- Postponing the activity depending on the following wildlife observations:
 - The presence of caribou within a 1.5-km radius of the activity will result in relocation and/or deferment to a more suitable time and location. The presence of a female caribou (with/out calves) within 1.5 km of the activity will trigger more comprehensive wildlife monitoring and documentation.
 - The presence of caribou within a 1.5-km radius of the activity will result in monitoring and documentation of the individual(s), their location and behaviour

Note: A designated wildlife monitor will be present on site during the calving season to monitor calving activities (i.e., cow and calf behaviors) near/along the Tote Road. The wildlife monitoring will inform traffic management procedures, designate temporary no-stopping zones and document measures to reduce sensory disturbance toward Caribou.

Quarry Blasting Caribou Clearance and Buffer Area





Caribou Mitigation Hierarchy

The following decision-tree summarizes the caribou mitigations for the quarry:

1. Complete Pre-Activity Wildlife Sweep of Site (year-round):

- a) Have a qualified environmental profession sweep a 1.5-km buffer of the activity area for wildlife and wildlife indicators (e.g., fresh tracks).
 - If no occurrence, proceed with activity.
 - If occurrence, document observations (refer to 3) and proceed to (c).
- b) Evaluate necessity for additional mitigation (e.g., temporary work stoppage and/or revised buffer zone from blasting zone).
 - If one (1) or more caribou, establish 1.5-km buffer around the activity area and postpone activity until caribou have cleared the buffer area.
 - Evaluate need for larger buffer (based on activity duration, location and wildlife behaviour); proceed to 3.

2. Report All Wildlife Observations

- a) Complete wildlife observation form (refer to Attachment 1)
- b) Notify and submit wildlife observation form to the Site and Environment Departments
 - For caribou observations, report/notify immediately.
 - For all other wildlife observations, report same day.

Temporary Project/Activity Shutdowns

Baffinland may enact a **Rapid Operational Shutdown** of a localized activity if large groups of caribou are observed approaching the quarry blasting area (especially during calving or post-calving periods). This response will be subject to further work (in consultation with a qualified wildlife specialist) to understand caribou calving areas, caribou calving times, and trigger number of caribou.

Reporting

Wildlife observations will be documented using the **Incidental Wildlife Observations** form (Attachment 1) and communicated to the Site and Environment Departments immediately.



Attachment 1 | Caribou Observation Form

Date/Time:	
Observer:	
Project Activity/Identifier:	
Location of Sighting (Area):	
Location of Sighting (UTM):	
Caribou Observation [Species, Sex, Age Class (Calf/Adult), # Individuals]	
Caribou Behaviour (Deflection To/From Project, Duration, Other Notable Indicators)	
Mitigation Measures (Work Stoppage or Deterrence, Duration)	
Caribou Response to Mitigation	
Site/Environment Sign-Off	
Data Logged:	
Environmental Coordinator	
Date/Time:	