



March 5, 2024

Mark Nelson and Nicole Goodman
Environmental Superintendents
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Dear Mark Nelson and Nicole Goodman:

Status of Approval Condition #6 – Caribou Behaviour Monitoring Program for the Wildlife Management and Monitoring Plan for the Diavik Diamond Mine

In a letter dated October 20, 2023, the Department of Environment and Climate Change (ECC) notified Diavik Diamond Mines Inc. (DDMI) that Approval Condition #6 from ECC's July 15, 2022, WMMP approval decision letter and Reasons for Decision had not been satisfactorily addressed. To facilitate a resolution to Approval Condition #6, ECC proposed to host a meeting with DDMI and the Environmental Monitoring Advisory Board (EMAB) to discuss the group-scan based caribou behaviour monitoring program.

ECC convened a meeting with DDMI, EMAB and the Tłı̨chǫ Government on December 04, 2023. A graduate student (M. Perra) and professor (E. Gurarie) from the State University of New York (SUNY) who are involved in research on barren-ground caribou also attended the meeting. Discussion included the challenges that DDMI faces in carrying out far-field (far from the mine) group behaviour scans, disturbance to caribou from accessing far-field sampling locations by snowmobile or helicopter, and the resulting challenge in meeting minimum sample sizes required for statistical comparisons of caribou behaviour at different distances from the mine.

Participants also discussed whether collar-based monitoring was an appropriate replacement for evaluating changes in caribou behaviour with distance from mine. This included exploring the potential for enhancements to collar-based monitoring such as the use of accelerometers and audiloggers attached to collars to provide finer-scale behavioural data, increasing the number of GPS collars deployed on caribou, or changing the size of collar geofences and/or increasing collar fix-rates within them. Other alternatives to group scans such as the use of remote cameras were discussed but ruled out as viable options.

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At the end of the meeting there was no clear consensus among parties on whether group-scan behaviour monitoring should continue near and far from the mine, or whether current collar-based monitoring is an adequate replacement for it. The parties agreed to respond to three action items resulting from the meeting (one for ECC, one for EMAB and Tłchq Government, and one for DDMI) to be completed in writing and shared among the meeting participants by January 12, 2024. It was agreed to convene another meeting thereafter to try and come to a final decision on a path forward. The action items were:

- 1) ECC to investigate feasibility (trade-off in terms of collar longevity and other monitoring objectives) of increasing collar location frequency within existing geofence buffers, increasing the size of geofence buffers, or using alternate formulations of the geofence buffers.
- 2) EMAB and Tłchq Government to provide their views and rationale for DDMI to continue near-mine group-scan behaviour monitoring for the remainder of the operations phase and into the closure phase, including the monitoring questions that it would be used to address.
- 3) DDMI to provide their views and rationale as to whether there would be value in continuing near-mine group-scan behaviour monitoring. DDMI to provide recommendations on how the collar-based monitoring program could be improved to better determine if caribou behaviour changes with distance from the mine.

Action item responses were circulated to all meeting participants by January 12, 2024. A follow-up meeting was convened on January 31, 2024, with participation of DDMI, EMAB, Tłchq Government and ECC. Meeting notes from December 04, 2023, were finalized (attached) and a synopsis of the action item responses from each party was presented by ECC. Discussion focused on the feasibility of far-field group scans and whether it would be possible for DDMI to complete enough additional far-field scans to meet the sample size targets for each distance interval. DDMI questioned whether collecting more far-field group scan data would really provide any new information or change mitigations in any way.

In response to their action item from the December 04, 2023, meeting, DDMI proposed to continue near-mine group behaviour scans into the closure phase. It was noted that this work would be conducted outside the scope of their current Tier 3 WMMP, and that the data would not be used in any of DDMI's further analyses. The data collected would be summarized in annual reports and raw data provided to the

Tłıchq Government to support the Traditional Knowledge-based monitoring program for the mine which is currently under development. ECC explained that it views comparing near-mine caribou behaviour between operations, closure and post-closure to be part of wildlife effects monitoring, and therefore near-mine group behaviour scans should continue to be included in the WMMP.

As a path forward, ECC proposed that DDMI continue to include near-mine group scans as part of the current WMMP, and that the parties continue to investigate the use of audio-loggers, altering the collar geofence configuration and/or changing fix rates on GPS collars to fine tune collar-based monitoring of changes in caribou behaviour with distance to mine. These follow-up discussions would need to involve the other diamond mines as they are also users of the collar data for their WMMP programs. Although EMAB supported the idea of keeping near-mine behaviour scans in the WMMP, they did not agree with dropping the far-field behaviour scans.

In light of the discussions and views shared by participants at the two meetings summarized above, ECC directs DDMI to revise Section 5.4.4 of the October 2022 version of the WMMP by including near-mine group behaviour scans to address a new wildlife effects monitoring objective of comparing near-mine caribou behaviour during operations, closure and post-closure phases of the mine. This updated section of the WMMP should include a description of the group-scan behaviour methods, survey frequency, and data analysis. The use of collar data to evaluate whether caribou movement behaviour changes with distance to mine should also remain as a component of Section 5.4.4 of the WMMP.

As outlined in ECC's October 2023 letter to DDMI, revisions to the WMMP shall also include the updated ZOI Analysis Plan, including any further edits to it made in response to ECC, EMAB and Tłıchq Government comments.

ECC commits to convening further discussions among the diamond mines, monitoring agencies/boards, and Indigenous Governments and Indigenous Organizations about potential improvements to collar-based monitoring to address questions about behavioural responses of caribou to the mines using approaches such as audio-loggers/accelerometers, and changes to collar programming and geofence configuration.

Please contact Dr. James Hodson, Manager, Habitat and Environment, by phone at (867) 767-9237 extension 53231 or by email at james_hodson@gov.nt.ca if you have any questions.

Sincerely,



(for) Erin Kelly, Ph.D.
Deputy Minister
Environment and Climate Change

c. Distribution List

Attachment 1 - Meeting to discuss DDMI WMMP caribou behaviour monitoring - 04Dec23 - meeting notes - final

Attachment 2 - GNWT-ECC Action item response - December 04, 2023, meeting re DDMI WMMP approval condition 6 - caribou behaviour monitoring

Attachment 3 - EMAB letter to ECC - Dec 4'23 caribou meeting action item

Attachment 4 - DDMI WMMP Approval Condition #6 - TG Response - Jan 12_24

Attachment 5 - ENVI-1519-0124 R0 DDMI Response Letter to WMMP Approval Condition 6 Meeting

Attachment 6 - DDMI WMMP caribou behaviour monitoring - 31Jan24 - meeting notes - final

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