



INDEPENDENT ENVIRONMENTAL MONITORING AGENCY

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Keith McLean
Environmental Operations Superintendent
Ekati Diamond Mine
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re: IEMA comments on BHPB Wildlife Monitoring

The Agency would like to comment on BHPB's 15 February 2011 Wildlife Research Permit Application and the 22 March 2011 response to the recommendations and discussions from the June and October 2010 workshops as part of the Diamond Mine Wildlife Monitoring Program Review. We appreciated being involved in this review and believe in the principle that a coordinated and collaborative process is sound. However, it seems not to have resulted in the benefits promised. We highlight our major concerns and make the following specific suggestions for improvement.

Grizzly bear:

Tracking Item 29 (from the Response Table to the Review Workshops): *BHP Billiton is planning on continuing its exploratory work on the grizzly bear DNA hair snagging program in 2011 and will look at implementing a full program when technical advice is received from ENR and a program methodology is agreed upon.*

The Agency is frustrated with the continued "testing" of methodologies for addressing grizzly bear monitoring objectives around the mines. DNA hair-snagging is an established methodology to determine abundance and distribution of grizzly bears in tundra environments; this has been well-proven in the Kitikmeot with the work of Mathieu Dumont, Kitikmeot regional biologist with Government of Nunavut, Department of Environment.

BHPB, preferably with the cooperation of adjacent mines and the territorial government, should decide on an appropriate scale and methodology. For years BHPB has conducted very little in the way of effective monitoring of grizzly bears and the potential impact of their mining activity on the species. The "pilot programs" conducted in 2010 and 2011 appear to have accomplished little: it is time to move on and implement a full program that will meet the stated objective to determine if mine related activities influence the relative abundance and distribution of grizzly bears over time.



Caribou:

The Agency supports testing of remote camera surveys and video surveillance using helicopters flying at higher altitude; however, we do caution that this is an unverified methodology. In addition, we look forward to the promised review of the combined BHPB and Diavik caribou aerial survey data (Tracking Item 37) and the Ekati and Diavik caribou behavioural data analysis scheduled for March 2011 (Tracking Item 41).

BHPB states that it is in agreement with the main objective for the caribou program (Tracking Item 34: *To determine whether the zone of influence (ZOI) changes in relation to mine activity*). However, the company appears to be hinting that re-initiation of weekly aerial surveys in 2012, or at another fixed date, or at a significant change in mining activity, is unlikely. Stated reasons are 1) potential disturbance to caribou, 2) ensuring that data obtained align with monitoring objectives, and 3) difficulties with planning and budgeting of monitoring programs, and agreement on what constitutes a significant shift in mining activity. Our comments:

1. The pros and cons of possible disturbance to caribou from aerial surveys can be debated. As we have stated previously, use of fixed-wing aircraft would significantly reduce any disturbance, but BHPB aircraft policies make that option difficult, if not impossible. BHPB's proposal to use hi-resolution camera footage from helicopters flown at higher altitude may provide useful data, but the technology and analyses are untested; higher quality data would not necessarily be guaranteed.
2. Thus far, most would agree that the aerial surveys have provided the best, most conclusive data to address monitoring program objectives for caribou, especially in relation to establishing a zone of influence.
3. If uncertainty in planning of aerial surveys causes budgeting problems, a simple solution is to set a firm re-start date. Bathurst caribou numbers may be bottoming out, and we are entering a phase of possibly increasing caribou numbers. There will also be a shift to greater use of the Misery Road by BHPB, which will likely increase effects on caribou. We suggest these reasons would justify re-initiation of aerial surveys in 2012. Alternatively, there should a meeting to examine the Life of Mine Plans for both Ekati and Diavik in order to establish criteria for setting dates for recommencing aerial surveys. We do not anticipate the difficulties that BHPB alludes to for reaching agreement on a re-start date to the aerial surveys.

BHPB states (Tracking Item 37) "*BHP Billiton is of the opinion that focusing efforts on caribou behaviour monitoring will have a greater impact on understanding the impact that mine activities have on caribou.*" Two reviews of regional caribou monitoring data have clearly established a zone of influence. There was also general agreement at the workshops on the need to attempt to determine the causal mechanism for such avoidance, so that improved mitigation can be attempted to lessen the footprint of the diamond mines. Impacts to a population can be broken down in simple terms to 1) changes to distribution and abundance, and 2) changes to behaviour. While not minimizing potentially detrimental changes to behaviour, if there are 75% fewer caribou within the zone of influence, then this

likely has a much greater contribution to population-level impacts than changes in behaviour of fewer animals remaining within the zone of influence. We would like to see the rationale for BHPB's statement that changes to its behavioural monitoring will indeed lead to better understanding of the mechanisms of avoidance.

Other matters:

Tracking Item 2: The need to document the effectiveness of raptor deterrent methods could be covered through a lessons learned or close-out report that may also assist with future operations and operators.

Tracking Items 3 and 52: The Agency and others have requested wildlife incident reports in the past. These reports will build openness and accountability in BHPB's handling of such matters, rather than waiting for the annual WEMP reports.

Tracking Item 51: The Agency was both encouraged and disappointed with the Diamond Mine Wildlife Monitoring Program Review process and many of the outcomes. We certainly support the concept of collaboration and coordination. This is clearly the greatest benefit of the process and it should be encouraged. But there have been a distinct lack of leadership from both BHPB and GNWT and numerous delays. At the end of the day, we are not convinced that many improvements have actually been made. In fact, there appears to have been a significant reduction in wildlife monitoring effort and expenditures. We recommend the following:

- A review of the current process and lessons learned, including a comparative review of similar processes for revisions to the Aquatic Effects Monitoring Program and the Air Quality Monitoring Program; and
- A complete revision to the Ekati Wildlife Management Plan (the most recent copy we have is dated December 1998) to reflect current mitigation methods and monitoring programs (objectives and methods).

Tracking Items 18 and 26: The Agency would appreciate being involved in any reviews of the wolverine (monitoring frequency and cell size) and grizzly bear DNA sampling program objectives and methods.

Tracking Item 48: The Agency is of the view that BHPB has a much improved Air Quality Monitoring Program. It is our understanding that Diavik is embarking on a review of its air quality monitoring as a result of a recent Minister's Report under that Environmental Agreement. It would indeed be a loss if efforts were not made to coordinate air quality work between the two adjacent mines. We strongly urge BHPB to work cooperatively with Diavik to ensure consistency in methods and analyses that may also result in cost-savings.

The Agency will continue to offer assistance and cooperation in improving the Ekati wildlife management and monitoring programs. We look forward to a response to our comments, either in writing or at our next meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "W.A. Ross". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Bill Ross
Chairperson

cc: Society Members

Garry Bohnet, Deputy Minister, Environment and Natural Resources, GNWT
John McCullum, Environmental Monitoring Advisory Board [Diavik]
Dave White, Snap Lake Environmental Monitoring Agency
Karen Clark, Biologist, Wek'eezhii Renewable Resources Board