Snap Lake Environmental Monitoring Agency
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Alexandra Hood
Permitting and Environmental Superintendent
Snap Lake Mine
De Beers Canada Inc
300 - 5102 50th Ave
Yellowknife, NT
X1A 3S8

File: WEMP 2010

January 26, 2012

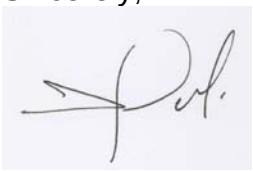
RE: Wildlife Effects Monitoring Program 2010 Annual Report

Dear Ms. Hood,

The Snap Lake Environmental Monitoring Agency (SLEMA) retained Ms. Ann Gunn to review the above annual report, and her comments were approved by SLEMA Board. Enclosed please find the attachment.

If you have any questions whatsoever please feel free to contact David White at 867-765-0961 / dwhite@slema.ca.

Sincerely,



Johnny Weyallon
Chairperson

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Snap Lake Environmental Monitoring Agency

Comments on

Wildlife Effects Monitoring Program 2010 Annual Report

Authored by
Ann Gunn

January 2012

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Main points of interest in 2010 wildlife monitoring:

1. 2010 was the 11th year of monitoring for Snap Lake. The 1999-2004 period was reported as baseline and then 1999-2007 monitoring was reviewed in a comprehensive report (Golder 2008). The next multi-year analysis is scheduled to be 2012.

2. In 2010, no caribou were observed during the single post calving aerial surveys of the local study area which was in mid-November. The triggers or their absence for the aerial surveys is unrecorded. Caribou sightings from the 2010 wildlife log were 36 observations compared to ~250 in 2009 and 13 in 2008. In the 2010 Wildlife Incidences, caribou were seen near the airport and emulsion plant but no details are reported except that they did not have to be deterred.

3. The number of 2010 wolverine sightings (7) decreased sharply compared to 2009 (27) and 2008 (57). The number of fox sightings increased in 2009 (99) and 2010 (103) from 2008 (62) although the number of fox incidences was 7, 10, and 6 in 2008-10. The 2010 report has no details on the fox incidences and their circumstances. Wolf sightings were 2 in 2010 compared to 15 in 2009 and 3 in 2008.

4. In 2010, monitoring for grizzly bears in the Regional Study area changed from looking for sign to hair-snagging at scent stations. The hair-snagging for grizzly bears was unsuccessful as only 1 of 40 stations (checked 3 times) had bear hair and no bears were recorded in the 2010 wildlife log or list of wildlife incidences. The trend since 1999 has been a reduction in grizzly bear sign.

5. No reason is given to explain why the wolverine track survey was not undertaken in 2010.

Overall comments:

1. The amount of explanatory detail is noticeably less than previous reports. Additionally, most of the same problems previously noted remain in the 2010 report even although De Beers had responded positively to the previously raised comments. This suggests that a new approach is needed for SLEMA relative to WEMP report. With this in mind, I looked at the Ekati and Diavik WEMP most recent annual reports. The amount of detail and the clarity of data presentation is a contrast to the Snap Lake WEMP.

2. The level of detail prevents understanding of how the results contribute to the monitoring objectives. It is not clearly stated how the WEMP meets its stated objective of how the Snap Lake monitoring contributes to regional monitoring and then for cumulative effects (p.3; 2010 report).

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3. The 2010 report is inconsistent in when information is reported for a 2010 only or previous years. For example wildlife log sightings are for 2010 while Interactions are reported for the previous years (which are useful).

4. A continued omission from the annual report is that there is no mention of environmental variability at the mine site itself. Some indexes to the extent of environmental variation are an essential component of cumulative effects (to assist discriminating between project related and environmental effects). Factors such as timing snow melt, freeze-up and an indication of exceptionally hot or wet weather need to be reported as they can influence the wildlife behaviour and abundance. At least for Ekati, environmental information is annually included in the WEMP reports.

5. The level of systematic monitoring for wildlife in the local study area was low in 2010 (One caribou aerial survey, the bear surveys and no wolverine survey). It is difficult in the absence of adequate survey effort to distinguish between reduced abundance and reduced surveys. However I do agree it makes no sense to survey in the absence of animals but there does need to be more attention paid to the triggers for surveys, to be assured that the absence or low abundance is not a consequence of survey effort. More analysis is needed to correlate a local reduction in abundance of carnivores with the decline in the size of the Bathurst herd as no evidence is presented for this. Although it might seem intuitive, it is unclear what the time lags might be between the change in grizzly bear, wolves and wolverine to the decline in caribou.

6. The wildlife sightings log and the Incident reports are useful information even though the unknown level of effort for the sightings is a problem in interpreting any trends. The information could be better presented (date and location of sighting) and comments such as repeat sighting) and cross-linked with Incident reports. More consideration could be given to on-site standardized monitoring such as surveying for wildlife along a fixed route and vantage points in the Local Study Area (similar to part of Diavik's approach).

7. Section 7 (conclusions and review of impact predictions) is generalised statements which would be more suitable in the multi-year comparison. In a single year monitoring report, there is not the data or analyses (or citations for analyses) to support the statements in Table 7.1. The conclusions on one hand comment on the effectiveness of monitoring while on the other one hand the report also notes the annual variation in the wildlife sightings.

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Specific comments:

1. The same comment made for previous annual reports is the use of endpoints for detecting mine-related effects. De Beers refers to the use of measurable endpoints or indicator variables (such as abundance, distribution, probability of occurrence). There is no explanation of how the endpoints will be used to separate project-related effects from natural environmentally caused ones. The endpoint for abundance is the range of values measured 1999-2004 (preconstruction) and the data annually vary which raises the question of whether it is reasonable to expect to separate project-related effects from natural environmentally caused ones using this design.

2. The three listed objectives for caribou are vague. The objectives need to be broken down into measurable components with testable research hypotheses. The aerial survey design will need to be re-considered in light of the Zone of Influence and reduced caribou abundance.

3. Section 2.1 lists wildlife mitigation practices but the report does not assess or summarize their frequency of use and effectiveness.

4. Table 3.1. The dates of migration are dependent on the dates of the first and last aerial surveys – the table should include the dates for the 'triggers' for when the surveys were undertaken (satellite-collared caribou, camp sightings). In 2007, De Beers committed to SLEMA to include details on those triggers. An explanation is needed for why the 15 Nov date which is the latest date for a survey was chosen. Analyses are needed to determine if there is a relationship between the reductions in caribou abundance since 2005. The reduction coincides with the period when July surveys were dropped. Again, this would be clarified if the triggers for the surveys were included. It is unclear why there is no presentation or analysis of ENR's satellite data. The tables are a poor presentation of data as they hamper annual comparisons – density/survey would be more useful than the total count.

5. Although the 2010 WEMP acknowledges that several recommendations were arrived at during the review meetings in September 2009 and June 2010 but except for dropping the pre-calving caribou aerial survey, the report does not include any other details for modifying programs (Marshall 2009, Handley 2010).

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6. Table 2.3 has fewer and fewer species in consecutive monitoring reports without offering a clear explanation for why it now only lists species listed under the NWT Species At Risk Act. It is incorrect that the General Status Rank is provided by the NWT Species At Risk Act. The General Status Ranking program pre-dates SAR (NWT) Act as it was developed in 1999 to rank every 5 years the general status of all species, using a coarse/rapid procedure, with only readily available information. The rank of "may be at risk" can be (and has been) used by other processes to inform on which species could have priority for a more formal status assessment. It is these formal assessments that are mentioned in SAR legislation.

The 2010 WEMP also does not explain whether SAR listed species that occur within the study area receive any particular monitoring relative to any recovery or management plans which are required for species listed as Special Concern. The wildlife sightings for Snap Lake include the rusty blackbird which is listed under the NWT and federal Species AT Risk Act. Previous WEMP reports had included the olive-sided flycatcher and no reason is given for dropping it from the 2010 report (presumably because its distribution reduces the likelihood of its occurrence but this should be explained).

Recommendations

1) The most efficient and effective approach for the 2012 multi-year comprehensive WEMP report is for SLEMA to be involved in providing suggestions prior to the analyses and report production rather than reviewing a final version. A collaborative approach will strengthen De Beer's commitment to environmental protection while enhancing the role of community-based monitoring.

2) More detail is needed in presenting the information (examples are given in the specific comments) and reference to WEMP reports from Ekati and Diavik would be instructive.