

April 25th, 2002

Scott Williams
Project Director, Ekati Diamond Mine™
BHP Billiton Diamonds Inc.
1102, 4902 – 52nd Street
Yellowknife, NT X1A 3T1

Dear Scott:

Re: Comments on 2001 Aquatics and Wildlife Monitoring Program and Workshops

The Independent Environmental Monitoring Agency (the Agency) is pleased to once again provide our comments to BHP Billiton (BHPB) on the 2001 Wildlife and Aquatic Effects Monitoring Programs (WEMP & AEMP) and February 2002 environmental workshops.

Our letter contains comments and recommendations for the consideration of BHPB (and regulators) in developing (and approving) the 2002 monitoring programs.

General

The approach taken this year by BHPB to the development, implementation and reporting of the AEMP and WEMP was a significant improvement over previous years. The holding of pre-workshop technical meetings by BHPB, prior to the finalization of the monitoring reports and workshops, allowed the Agency and other interested parties to provide more meaningful input to the final reports of the year's programs.

Recommendation 1:

The approach taken this year, to include pre-workshop technical meetings, is continued in future years.

The workshop presentations and the question-and-answer periods were useful and informative. However, greater effort is still required to find constructive processes to more fully involve Aboriginal peoples in the annual review of the monitoring programs.

Changing the Programs:

In continually fine-tuning the monitoring programs each year, there is naturally a tendency to discard elements of the programs that seem not to be producing useful information over time. As a general principle, the Agency cautions against speedy or seemingly expedient changes to the programs without a proper consideration of the consequences. Changes, especially reductions, to the monitoring programs should only be made when they can be supported by scientific and technical justification.

Wildlife

General

The 2001 WEMP report is professionally presented and well summarizes the findings of 2001. The expanded Plain English summary helps communicate the results to a broader audience. Overall, the 2001 WEMP report is the best produced by BHPB since the beginning of mine operations.

The Agency notes the greater openness of BHPB in discussing problems about wildlife encountered at the mine site (e.g., carnivore incidents) or difficulties with specific monitoring activities (wolverine track surveys). This approach is welcome as it allows a more balanced view of successes and difficulties related to the WEMP. It also permits meaningful inputs from participants in order to work with BHPB toward resolving such difficulties.

Specific

The Agency remains concerned about the lack of reporting within the WEMP report of inputs and concerns received from Aboriginal people visiting the site. For example, the observations of Aboriginal people could represent a meaningful contribution to understanding the effects of the roads on caribou movements and activities.

Recommendation 2:

BHPB work with Aboriginal people to develop a method of reporting the inputs and concerns of Aboriginal people visiting the site.

The monitoring program for wolverine needs revision and strengthening. The Agency recommends expanding the number of winter track surveys to four or five to better document yearly changes in wolverine abundance in the Wildlife Study Area. The Agency also supports the testing of new approaches for monitoring wolverine abundance in the Wildlife Study Area, such as the use of scent stations. However, the participation of Aboriginal people in the wolverine monitoring program should be maintained as it represents an excellent example of tangible participation of Aboriginal people in monitoring activities.

Recommendation 3:

The wolverine track survey is expanded to four or five times per season. At the same time, BHPB is encouraged to develop and implement the scent station monitoring program.

The Agency stresses the need to have detailed data on traffic volume for haul roads (Misery, Sable). Such data are a prerequisite to interpreting monitoring data of caribou along haul roads. The Agency understands that the necessary traffic data will be reported by BHPB in 2002.

The analyses of caribou data from aerial surveys (e.g., relative abundance of caribou versus mine footprint) should be more refined in future years. For example, the effects of distance

from infrastructure, habitat type, and group composition should be addressed in the statistical design of the analysis. Further, data should be analysed independently for the northern and the southern migration (or, better, the northern migration, post-calving period, and autumn migration).

Recommendation 4:

The data on relative abundance of caribou as a function of mine infrastructure should be analysed and presented independently for the northern migration and post calving period.

The Agency continues to encourage BHPB to collaborate with Diavik Diamond Mine Incorporated in developing monitoring activities that use the same protocols for data collection. This approach will permit assessment of potential impacts on wildlife from a more regional perspective. Harmonization of protocols is especially important for caribou, wolverine, and grizzly bear.

The WEMP report (p.9) states that riparian tall shrub habitat is important to grizzly bears, caribou and passerine birds in the Northwest Territories. The Agency is interested to know what efforts BHPB will be making to ensure that further losses of this important habitat are minimized, or better, prevented.

Aquatic Effects Monitoring Program

Specific

BHPB should be commended for expanding the dissolved oxygen sampling program and incorporating winter water quality sampling for all AEMP lakes. The introduction of a utilized data set (as requested by the Agency last year) in this year's report indicates that BHPB is better managing it's data.

Last year the Agency recommended that results from snow core survey data be analysed and discussed. We are pleased to hear that a comprehensive review of air quality monitoring data (including snow core surveys) is currently underway, and we look forward to reviewing this report in the near future.

Frequent changes to detection limits have made the determination of long-term trends in the Koala watershed difficult. In future, if changes to detection limits are proposed, the Agency recommends that both limits be employed for a period of time (to be statistically defined) in order to develop a correlation between data for differing detection limits.

Recommendation 5:

BHPB revise its QA/QC Plan to include a protocol for developing a correlation between data at sites where detection limit changes are proposed.

Trend analysis is not being applied as fully as it should be in interpreting the data. The histograms presented do not have trend lines. BHPB's investigations should move towards trend analysis: This issue should be addressed at the upcoming AEMP review meeting.

The appropriateness of the existing reference lakes (especially Vulture Lake) is becoming more questionable due to the apparent potential impacts from fugitive dust and the resulting snow chemistry. The development of the three new pipes may intensify this concern. BHPB must look carefully at the all data collected, including water quality and air quality (including snow core data) in order to determine whether reference lakes are being affected by mine operations and whether other reference lakes may be required.

An unresolved issue is that of adding Leslie Lake to the AEMP, as has previously been recommended by the Agency. Discussion of this issue was promised for the workshops, however, unfortunately did not occur.

Recommendation 6:

BHPB add Leslie Lake to the AEMP.

BHPB makes the comment (2001 AQUATIC EFFECTS MONITORING PROGRAM (AEMP) Workshop Summary - February 4, 2002 – J.Millard, BHPB) that the amount and nature of the baseline data available for the Horseshoe and Pigeon watersheds will be appropriate to properly evaluate potential effects in the future. In the intervening time between now and the start of development at each site, BHPB has the opportunity to collect a significant amount of baseline data. For example, the schedule of development activities for Pigeon allows for much more than two years of baseline data collection. BHPB is strongly encouraged to collect additional years of baseline sampling wherever it is possible to do so.

Kodiak Lake Sewage Effects Monitoring Program

BHPB notes that the results indicate that most parameters that are monitored, once again reflect baseline conditions. Data from the 2001 SEMP do indicate that the lake is recovering, but as there are limited baseline data, this conclusion is somewhat tenuous

BHPB noted that ‘consideration will be given’ to performing run-off sampling from source areas to determine whether areas such as the airstrip or Ammonium Nitrate storage areas may be the cause of elevated nitrate levels in Little Lake. If the monitoring of Little Lake is to be suspended indefinitely then BHPB should conduct the above mentioned run-off sampling to identify the source of nitrates. BHPB should also carry out a single year of sampling in, say, three or four years to confirm the trend back to baseline conditions.

Recommendation 7:

BHPB carry out run-off water quality sampling from source areas (i.e., airstrip and ammonium nitrate storage area).

Recommendation 8:

BHPB conduct a year of AEMP sampling in Little Lake in three to four years.

Panda Diversion Channel (PDC) Monitoring Program:

BHPB's decision to discontinue fish sampling at both the Panda (upstream) and Kodiak (downstream) fish boxes in 2002 does not match the view presented at the workshops by the Agency. The year 2002 is a fish monitoring year for all AEMP sites (including Kodiak Lake) and would be a year where fish data from Kodiak and the PDC could be used together to gain a better understanding of the fish communities in this particular system. This opportunity will not be available in 2003 or 2004 and these years may be more appropriate for suspending the program.

Recommendation 9:

BHPB continue fish-box sampling in the PDC for the 2002 monitoring year, and discuss discontinuing the program for future years on May 3rd, 2002.

Thank-you for your attention to the above comments and recommendations. If you have any questions, please do not hesitate to contact us through our staff.

Sincerely,

- Original Signed By-

Red Pedersen
Chair

Cc. Society Members
IACT Members