

***Independent Environmental Monitoring Agency
50th Meeting of the Board of Directors
Yellowknife, NWT
June 12th – 14th, 2006
Summary of Discussion***

Revised: September 6, 2006

Directors

Bill Ross, Chairperson

Sheryl Grieve

Tim Byers, Vice-Chairperson

Tony Pearse (via teleconference)

Jaida Ohokannoak, Secretary-Treasurer

Staff

Sean Kollee

Kevin O'Reilly

Information Updates

Bill met with Environmental Agreement signatories May 18, 2006 for a half-day session on implementation in accordance with the Resolution Agreement. Jane attended on behalf of BHPB. DIAND and GNWT also participated and the notes from this meeting have been posted to the Agency website. Dates for the Agency Annual General Meeting were suggested to be first week of November 2006 to avoid overlap with the Joint Review Panel hearings. The Agency made presentations on communications responsibilities and the draft recommendations from the 2005-6 Annual Report. BHPB believes reporting requirements are burdensome and a solution could be summary report production while the Agency believes that reporting should be done in a more collaborative fashion and, in order to reduce the burden, focus on important matters. Although replacement of Agency Board members was discussed, there was no resolution.

Directors discussed the Agency EA signatory meeting. Agency suggested BHPB should commit enough resources to ensure environment department can submit its reports on time. BHPB view that summary reports sufficient, Agency view that more focused reports would be beneficial and there could well be more reports than are necessary at this time. Agency annual report is being produced without the AEMP, AQ, Annual Report from BHPB.

Sheryl participated in the reclamation workshop hosted by the Canadian Institute in Yellowknife in May 2006. There was a lot of discussion on involving Aboriginal parties and crown obligation to consult, beyond notice and the licencing process.

Jaida had a teleconference with Kevin and the auditor to discuss the 2005-06 Agency financial audit. She also reviewed draft materials for the Agency's 2005-06 Annual Report.

Tim reviewed draft materials for the Agency 2005-6 Annual Report, and judged a Manitoba school environment competition.

Kevin drafted letters on the revised draft Wastewater and Processed Kimberlite Management Plan, BHPB's air quality monitoring, need for a full-time inspector, and ICRP terms of reference. He also assisted Bill with the implementation meeting of Environmental Agreement signatories, attended an IACT meeting May 11, attempted to, but was unable to meet with SLEMA, assisted with the 2005-6 Annual Report, looked into employee vision benefits, checked into parental leave programs, and was involved in the Agency financial audit. He also had a holiday in Washington DC with his daughter.

Sean coordinated production and editing of the 2005-6 Annual Report. He provided an update on the status of the technical and plain language versions.

Finances and Administration

Draft financial statements for 2005-6 were discussed. There was a larger than expected surplus that was a result of staggered depreciation of capital assets and website work rather than a full charge against the current year, prorated insurance pre-payments, and a few other matters. A few questions were noted from Directors and Jaida and Kevin were authorized to finalize and sign-off on the statements in discussion with the accountants.

The Agency employee contracts mention vision benefits but there is no coverage under the Chambers of Commerce current plan. The Manager discussed coverage with the Chambers and there was no financial advantage to the Agency or employees in taking this option. Vision benefits for federal and BHPB employees were presented and reviewed. The Directors unanimously agreed to provide a reimbursement of \$200 every 2 years for each employee and any dependents, based on submission of appropriate receipts (funded by the Agency rather than an insurer). This clarification was viewed as an amendment to the Agency's formal Administration and Personnel Policy.

The Board discussed a proposed parental leave benefits plan that would supplement Employment Insurance. The draft plan was approved by the Directors subject to some small changes, with the final plan to be approved by the Chairperson. The plan will cover all Agency employees and is to be considered as an addition to the formal Agency Administration and Personnel Policy. Final arrangements for Sean's parental leave are to be formalized in a letter from the Manager to be signed by Sean.

Meetings with Others

June 12—Closure Options Evaluation Presentation by BHPB

Helen Butler gave a PowerPoint presentation consisting of a review of the closure planning process to date, discussion of the major mine components, closure options for

geographic areas of the mine, BHPB's options evaluation process for stakeholders, and the remaining work (see copy of the presentation handout in the Agency public registry).

A long discussion took place on various aspects of the presentation and BHPB's process captured in the bullets below:

- BHPB indicated, in response to a question from the Agency, that the research conducted for the Interim Closure and Reclamation Plan (ICRP) would be included in appendices as part of the submission in January 2007.
- Kugluktuk has made comments about concerns with water quality.
- BHPB tracks how much topsoil should be available for reclamation.
- Some resloping of pit walls (5 m to first bench) will be undertaken but the rock is very stable.
- BHPB has not finished work on whether the pits will be productive fish habitat. It is not known whether the lakes will be meromictic or whether the water quality will allow safe passage by fish.
- A number of possible sources are being examined for possible pump flooding of pits including Lac de Gras and Upper Exeter. ("and others" is redundant, as the word "includes" signifies that there are others.
- BHPB is willing to look at other closure options that may involve mixing and matching some of the options for individual mine components, but these should be requested in advance of the workshop.
- There does not appear to be enough water flow to allow PDC to remain open and to have the pit lakes naturally flow into one another. PDC options remain open and include full closure and resulting habitat loss, but this option would require further discussions with DFO.
- Biotite schist in the waste rock piles is mapped and tracked.
- The height of any dome that may result from pit backfilling has not been calculated.
- BHPB is of the view that no measures are necessary to prevent fish access to Misery and Fox as this has already been dealt with through compensation arrangements with DFO.
- In 2005, there was some revegetation work with willows and grasses at the top of the channel in Cell B.
- BHPB has collected some native seeds on site for potential revegetation but is also trying to get an Alberta nursery to produce some stock.
- BHPB has no predictions of what interface shorelines in the LLCF will look like after closure but geese are using some areas now and there is some vegetation colonization taking place. One option is to lower water levels in LLCF for a couple of years to allow heavy equipment to do some work.
- The Agency noted that pit backfill using extra-fine processed kimberlite was not reflected in the LLCF options.
- BHPB is still looking at the option of pumping extra-fine processed kimberlite from LLCF into a pit but that is an option down the road.
- The Agency also restated that a good reclamation research plan would help set out revegetation options and acceptability.

- BHPB's risk assessment on metal uptake by vegetation is out for peer review.
- The dams and dykes in Long Lake will likely be covered by tailings at closure. A notch in a weir at the outlet will help prevent erosion of the tailings. If water quality is acceptable in Cell E, that dam will be breached.
- BHPB had yet to engage the Yellowknives Dene First Nation or Lutsel K'e about closure options. Some discussions were taking place with the Tlicho government and NSMA about consultations.
- Roads and other mine components will not be dealt with in this version of the ICRP, but mine components covering a total of about 95% of the liability costs will be covered. BHPB's corporate closure standard requires a revised closure plan every three years.

The Agency expressed some reservations about the lack of clear closure objectives and suggested that mine components might be used to develop and present options, rather than geographic areas of the mine. There needs to be opportunities for new options to be presented by communities and others. BHPB stated that it would have its experts available at the workshop scheduled for July 18-21 but a location had not yet been selected.

2005 Wildlife Effects Monitoring Program (WEMP) Review (Teleconference with Anne Gunn)

The Agency had requested a review of the 2005 WEMP report by Anne Gunn, through GNWT Environment and Natural Resources. Anne's draft was reviewed by the Directors and discussed further on a teleconference.

Anne's view was that BHPB's caribou survey methodology has served its purpose in helping to identify seasonal patterns and results of exposure of caribou to the mine site. Basically the caribou move through the site quickly in the spring and are in the general vicinity of the mine for the post-calving period. Without changes to the methodology not much can be added. She agreed with the proposed changes to the aerial survey methodology (except perhaps using a fixed wing aircraft rather than a helicopter) and suggested more behavioural studies. Power analysis may also determine how robust is the survey's ability to detect changes in caribou use of the study area.

BHPB should be analyzing types of vehicle traffic (i.e. small versus larger vehicles and speeds) to better understand caribou behavioural reactions. BHPB also did not classify caribou paralleling a road as a movement deflection or aversive response. Analyzing road characteristics (e.g. road height, berming, surrounding habitat type) where caribou parallel a road also prove insightful in analyzing caribou responses.

Although there appears to be a decline in the Bathurst caribou herd, no one is monitoring or seeing any effects on predators yet. It may also be expected that there will be a higher number of bear and other nuisance animal incidents at Ekati and other mine sites with reduced prey opportunities. There was some discussion on the need for improved deterrence such as that used by Parks Canada. Aversive conditioning deterrence should

be examined and (more fully) adopted by both GNWT and the mining industry in the NWT.

There is no monitoring to look at whether wolves are using mine infrastructure to assist with their hunting. This could be done by documenting physical characteristics and surroundings at caribou kills found at Ekati in relation to mine infrastructure. Mine design should also account for caribou escape routes.

Questions were asked whether the wolverine DNA sampling technique using baited poles might introduce errors or skew results as a result of attracting them to a new food source. It was mentioned that a scent lure might be used but any bias of the animals following track lines is accounted for in the grid pattern. The amount of food from the bait is really minimal and not enough to keep an animal from starving. Everyone is anxious to see the results.

The upland bird monitoring is good but there is little interpretation being done by BHPB or its consultants. The monitoring intervals might be reduced to every three years to allow for greater effort on interpretation.

Meeting with MVLWB/WLWB Staff (Sarah Baines and Lynn Carter)

The Wek'eezhii Land and Water Board (WLWB) recently approved a final terms of reference for the Interim Closure and Reclamation Plan (ICRP). A formal letter should go out shortly about this decision. BHPB will be required to update the terms of reference including the implications of climate change on the availability of a winter road and BHPB will now provide suggestions on a security adjustment mechanism.

The Agency expressed some surprise that BHPB now indicates that roads will not be dealt with in the ICRP.

Comments on the permanent approval of the use of chloride at the process plant are due on June 16. WLWB has not received feedback on this issue from reviewers other than the Agency.

The tier II risk assessment for chloride was discussed. The Agency is suggesting a precautionary approach to chloride discharges from the LLCF based on the BC guideline of 150 mg/L to protect Ceriodaphnia that have been found in lakes downstream of Ekati.

In discussing the changes to SNP stations at Beartooth proposed by BHPB, the Directors indicated that sampling of combined effluent is likely sufficient. However, the Agency cannot support a reduction of sampling frequency from daily to monthly without evidence of low variability in parameters of potential concern as demonstrated by sampling results over time. Given the short turn around time for comments, the Agency indicated that its response would be sent by e-mail that day.

Action Item #1– Staff to send an e-mail to the WLWB with comments on SNP changes.

June 30, 2006 is Sarah's last day at the MVLWB though she will be working for the WLWB. She will be working every second week in Wekweti. Lynn will remain with MVLWB and serve as a backup on the Ekati file. WLWB will be hiring Wekweti-based technicians and Sarah will be training them. Sarah and Lynn will be attending the EIR 2006 site visit and likely the closure tour as well.

Meeting with BHPB Staff (Jane Howe)

Jane indicated that David Scott was unavailable for this meeting as he is at site for a geological assessment audit. On the EIR 2006 meeting at the site, Jane undertook to check to see whether any more spaces may be available beyond the two Directors already confirmed. No progress was reported on appointments of replacement Directors.

Jane reported that the mine is operating at capacity despite the strike. May 2006 was the best month ever for production. Fox ore processing issues are now considered to be under control. Hauling stockpiled ore from Misery will continue over the summer. Koala pit now finished and approval will likely soon be forthcoming for underground operations. Lac du Sauvage winter exploration was completed. No results made public yet although company intends to return next year for more exploration.

Spring freshet began on May 10, three weeks earlier than normal and was triggered by heavy rain. Pumping from LLCF, Bearclaw and Desperation is expected very shortly.

Monitoring programs are now underway including the AEMP and baseline work at Lac du Sauvage. The amended aerial survey method for caribou monitoring was approved with reduced frequency in the spring. The largest caribou group this year was about 100 animals and it appears that the herd went to the east of Ekati. The wolverine sampling frequency was reduced due to the early spring weather. Breeding bird surveys have started and motion sensors were installed on inokhok to support TK work. The wind power feasibility work continues but the funding programs for implementation were cut by the federal government so this initiative may not proceed.

A revised Wastewater and Processed Kimberlite Management Plan was submitted in February 2006 by BHPB. Temporary approval was given for the use of chlorides in processing ore but DIAND has requested more information on this issue.

Jane indicated that community people are hired where possible for wildlife monitoring. She provided an example of TK use when it was suggested by Aboriginal employees that a caribou tangled in tower guy wires have its head covered to reduce stress and the antler could be safely cut off (due to no blood flow through it at that time of year) to allow it to go free again. The Agency suggested that this sort of example would be useful to document in the Annual Environmental Report from the company.

BHPB recently put on a course about mining for non-miners, was involved in the Canadian Institute northern mine reclamation conference, an ISO 14001 course, and a

NWT Association of Professional Engineers, Geologists and Geophysicists conference where they made a presentation on the NTKP project. There is ongoing dialogue about a Multi-Project Environmental Monitoring Agency (MPEMA). BHPB is still engaged but would like to see participation from Diavik.

Site visits – DFO (May 11, May 25-26, June), WLWB staff (February 7-8 and May 24), DIAND inspector (April 21, May 2-3, and June 13).

BHPB has sent a letter of credit for \$56 million for the revised security deposit required under the new licence. As the joint venture is unincorporated, it was difficult to produce consolidated financial statement for the bank to issue the letter. Current security is \$156.13 million. BHPB is of the view that the current liability is estimated to be \$116.49 million and there is double bonding of approximately \$39.6 million.

The dyke between cells C and D was raised 2 m this summer. Exploration will continue at Sable and Pigeon. BHPB intends to build the remainder of the Sable Road. Some projects were deferred as a result of the short winter road season. For example, the new wing on the accommodation building, an exploration camp at Ursula, and the completion of the new incinerators.

A number of reports from 2005 are still pending including the Plain Language version of the EIR 2006, the full AEMP, air quality studies, Kodiak Special Effects study, caribou and roads report, the 2005 Annual Report, the risk assessment for metal uptake, LLCF water quality, and Tier II risk assessment for chloride. BHPB is reconsidering its current approach of issuing draft reports and then final ones, to issuing one final version of a report.

Under the new water licence, an adaptive management plan and a hydrocarbon management plan will be submitted this fall. The Canadian Aboriginal Minerals Association (CAMA) conference is being held in November where the NTKP will be featured. Jane stated that BHPB would like to have the Agency Directors visit the mine site some time this fall.

Discussion

In response to questions from the Agency, Jane undertook to get a letter on contributed services to the Agency for the audit and to reply in writing to the Agency's recommendations from the 2004-5 Annual Report.

The Directors suggested that BHPB may wish to reconsider how it classifies caribou behaviour in relation to roads so that caribou running parallel to the road are considered to be deflected from their normal routing.

On the issue of wildlife deterrence, it was suggested that the Agency may be prepared to meet with GNWT and BHPB to look at aversive conditioning and how other agencies or regions deal with nuisance wildlife. The Agency has yet to discuss this matter with

GNWT. Jane sounded supportive of the notion and indicated that Rescan may be in a position to comment on technical matters

BHPB has not staffed Jane's old positions. Brent has filled a term position for a staff member on maternity leave and is looking into another compliance specialist. There is also some turnover in wildlife staff positions, but the Environment Department has 12 of 14 positions filled. There has been high turnover of staff at site with Brent the only remaining staff person who could review the 2005 monitoring reports. Production of the EIR 2006 was a challenge due to the lack of corporate memory.

BHPB is still interested in energy and transportation alternatives to the mine site including wind power and the proposed Bathurst Inlet Port and Road.

Meeting with Snap Lake Environmental Monitoring Agency (SLEMA) – (Dave White and John Chaulk)

Bill welcomed the SLEMA staff to meet the Directors and noted the good working relationship between EMAB and IEMA related to sharing of space and other initiatives of mutual concern. Directors noted that the Agency's mandate is to deal with effects of Ekati project and possible contribution of effects from Ekati in the region, and where appropriate, act jointly as has been done with EMAB on occasion.

David started with SLEMA 3 months ago. A logo and website (will be www.slema.ca) are in the works. Many of the EMAB policies were adopted. A Board meeting is scheduled for later this month on governance along with a visit to the reference lake. Tony Pearse, Don McDonald, Colin McDonald, Anne Gunn, Pehri Mehling sit on the science panel. Fish palatability work planned for August and the staff are developing presentations for communities visits. Agency Directors stated that IEMA tries to visit one community per year and at some point a joint visit with SLEMA may make some sense.

John mentioned he moved from Ottawa (CANMET environmental research laboratory) recently and had just started with SLEMA. Also worked at the Britannia Beach mine site and on other environmental issues. He is looking forward to learning about the various monitoring reports.

Directors wondered how the TK and Science panels will interact. SLEMA will make an effort to ensure coordination and communication occurs. The SLEMA board understands this need to have communication.

The most significant environmental issue so far seems to be concern with dust at Snap Lake. Other issues include hydrocarbon contamination as one truck went through ice this past winter. Inspection reports highlight other fuel spills.

Directors asked about waste handling and wildlife issues. Not a lot of information collected as of yet on this subject but it is of interest to SLEMA. The Agency Directors suggested there may be a common interest in wildlife deterrence.

Directors mentioned that managing facilities for closure is a key issue particularly with regard to tailings and waste rock. Agency encouraged looking into such issues as climate change related effects with regard to permafrost encapsulation. Some processed kimberlite may not settle and this is a closure issue. Based on lessons learned at Ekati, other issues are important such as waste rock pile design with a bed of granite material rather than placing waste rock directly on the tundra. It was mentioned that the Agency had a consultant review the BHPB waste rock plan. Chloride in effluent could become an issue in the future as could increasing levels of molybdenum.

Meeting with DIAND (Lionel Marcincoski)

No progress to report on the appointment of replacement Directors but a joint meeting of senior DIAND and GNWT officials is being pursued. It was noted that the agenda for the EIR 2006 meeting at the site seems to be shifting to a less technical discussion.

It was mentioned that BHPB feels the Ekati mine is over-bonded by \$40 million. There may be some discrepancies as Sable has yet to be developed and this could account for some costs under BHPB's security estimation model. Company continues to claim there is no mechanism for return of security but there are provisions under the EA to review security every 2 years and the option to review also exists under the water licence.

Another MPEMA meeting planned for July to discuss terms of reference. The NWT environmental audit is printed and likely to be distributed soon

Meeting with EMAB (John McCullum)

EMAB is putting together a draft intervention with regard to the Diavik water licence renewal. John is co-chairing a working group on ammonia management. Diavik is required to put together an ammonia management plan and discussion paper. Diavik has yet to complete the discussion paper and the management plan is behind schedule as well. Explosive management, pit water, treatment options were areas for Diavik to look at. Diavik also has not looked into options to segregate various qualities of water to divert ammonia-laden water. Diavik did look into treatment options to see what technique could result in 2 and 4 mg/L ammonia discharges. The working group wanted an integrated list of preferred options with criteria and transparency but this has not been done to date. The working group is to report to the WLWB by September 1, 2006.

A revised AEMP for Diavik was due by May 31, 2006. EMAB hired some technical experts to review the revised program design. The plan was based on metal mining guidelines. The control lake is an issue and the experts were not satisfied with Diavik's gradient approach. Lac du Sauvage was identified as a reference site and another site was not ideal as it is downstream of BHPB's Koala watershed. The methods proposed in the

revised AEMP would require 8 years to demonstrate effects. The Diavik Technical Advisory Committee is suggesting a proper Environmental Effects Monitoring approach although the process suggested by Diavik is a step forward. The Committee will not be represented at the hearing for the water licence.

John expressed some concern that there does not appear to be much coordination between Diavik and BHPB with regard to their aerial caribou surveys. Work is underway on developing new sites for potential fish habitat compensation work. Monitoring camps will be set up this summer to look at dust and caribou along with fish palatability.

The notion of a wildlife deterrence best practices meeting or workshop was discussed.

Internal Agency Discussions

Environmental Impact Review 2006 Report

Process of review for the EIR 2006 was discussed in regard to deadlines, the EIR site visit and need for prompt comment to be delivered to DIAND in relation to the EA requirements following the site visit. The limited opportunities for community input were discussed in regard to the timeline. The Directors plan to make a draft submission prior to the site visit and enable updating of it following the site visit. For the purposes of the EA, DIAND wants to know if report is adequate and if remedial actions taken on compliance issues were satisfactory.

The Agency's major comments to date were summarized and ranked in terms of their overall importance as follows:

Covering Letter

- a substantial effort by the company and its consultants
- plain language summary still not done

Major Comments

- some good examples of adaptive environmental management but some questionable examples undermine the message
- documentation of use of TK could be improved
- need for additional zooplankton work to understand changes in populations

Minor Comments

- EIS predictions are exaggerated
- careless use of terms
- brief description of revegetation research and results should be included
- more important to summarize actions
- inadequate monitoring of vegetation for effects of air emissions including dust
- repeat Agency's earlier air quality monitoring comments
- significance table a good step but some problems

--doubtful labelling of mitigation measures or closure tasks as positive effects (e.g. plant growth in reclaimed disturbed areas)

Action Item #2—Staff to request a copy of Report 62, the Harvey Martins March 2005 Report mentioned in the EIR 2006.

Permanent Approval for Use of Chloride

The Directors discussed the issue of the permanent approval for the use of chloride in the processing plant. Chloride concentrations appear to be higher than previously thought and preliminary results from BHPB indicate that they will continue to rise in the future. It should be suggested to the WLWB that it establish a temporary water licence limit for chloride in LLCF effluent. In addition, regular monitoring results should be submitted to the board regularly (SNP and part of evaluated parameter of Adaptive Management Plan for future years). If BHPB continues to seek permanent approval for the addition of chlorides, an interim licence limit should be set, taking a precautionary approach, using a 150 mg/l limit due to chronic toxicity research. The Agency will suggest to the WLWB that it take a precautionary approach to the discharge of chlorides from Long Lake based on presence of sensitive zooplankton downstream in Moose Lake.

Action Item #3—Agency staff to draft a letter to the WLWB on the issue of permanent approval of chloride at the process plant.

Administration

It was noted that the current agency bookkeeper is closing its business and the manager and treasurer are exploring other options. The Board delegated the authority to the manager and treasurer to enter into an agreement with a new bookkeeper.

Action Item #4—Secretary-Treasurer and Manager to finalize arrangements for new bookkeeping services for the Agency.

North Slave Metis Alliance Letter

It was noted that the NSMA had written to the Agency requesting that technical submissions be distributed ahead of regulatory deadlines to allow NSMA to better prepare its own submissions. The Agency will try, where possible, to leave a few days between its submission and deadlines. It was noted that Aboriginal organization staff are always free to contact Directors and Agency staff to receive information and assistance.

Action Item #5—Staff to draft a response to the NSMA letter.

Future Meetings

The next Board meeting was scheduled for Wekweti and will include a community presentation and school visit if possible.

Action Item #6–Staff to look into charter rates vs. scheduled flights, school visit, accommodation, open house and catering for the Wekweti meeting.
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The staff sent out an e-mail to all Society members with two options for the Annual General Meeting date. The only feedback was from DIAND and the first week in November works best due to conflicts with the Joint Review Panel hearings in Inuvik. The Directors agreed that the AGM date should be set for Friday November 3, 2006.

Action Item #7 – Staff to send out notices for the AGM November 3, 2006

Meeting Adjourned

Summary of Discussion Approved By

-ORIGINAL SIGNED BY-

Jaida Ohokannoak (Secretary Treasurer)