# Independent Environmental Monitoring Agency 54<sup>th</sup> Meeting of the Board of Directors Yellowknife, NWT March 28 – 30, 2007 Summary of Discussion

Revised: April 5, 2007

Directors

Tim Byers Kim Poole Sheryl Grieve Tony Pearse Laura Johnston Bill Ross

Jaida Ohokannoak

Staff
Sean Kollee
Kevin O'Reilly

## INFORMATION UPDATES

In addition to ongoing Agency work including review of Ekati related correspondence and internal communications:

Bill –.The Chairperson also participated in the Interim Closure and Reclamation Plan (ICRP) conference call from Ecuador. He discussed an option for next meeting (coordinate the next Board meeting with an IACT meeting and an extra ½ day workshop on a specific topic).

Kim – reviewed the ICRP and corresponded on caribou monitoring issues with Kevin. He requested that Directors and staff that send out email with attachment be sure to put a name and date on the document to ensure clarity.

Tim – Conducted a review of the report by BHPB on the proposed discharge criteria for chloride in the Sable, Pigeon and Beartooth water licence. He also participated in the conference call on ICRP. He mentioned that the materials requested by the Joint Review Panel related to the Agency were sent.

Laura – Conducted a review of the chloride report by BHPB and participated in the conference call on ICRP.

Sheryl – conducted an ICRP review and met with NSMA (community and staff) on ICRP and chloride issues.

Jaida – communicated with auditor and looked into tax laws regarding Director honoraria and worked with Kevin in developing the Agency work plan and budget for 2007-08 and 2008-09. She also reviewed the ICRP and participated in ICRP conference call.

Kevin – mentioned the three Agency letters that have been distributed since the last board meeting (AEMP review, ICRP section one comments, and further questions for BHPB on ICRP). He conducted a review of the proposed chloride discharge criteria, developed a joint caribou monitoring proposal for the monitoring agencies (EMAB has expressed limited support so far), looked into an intervention on the WRRB public hearings on the Bathurst caribou herd, drafted a submission to Bill Tilleman on the financial disputes with BHPB and developed a draft Agency work plan and budget for 2007-08 and 2008-9.

Sean – mentioned progress on preparation for the Agency annual report, plans for development of an ftp site as part of the Agency's and updated correspondence lists.

## AGENCY FINANCES AND ADMINISTRATION

2007-08 and 2008-9 Agency Work Plan and Budget

The Directors reviewed the draft Agency work plan and budget. Due to tighter budget than in previous years (finally operating with a full slate of Directors, which leads to greater costs for meetings) the Directors considered ways of ensuring projected expenses would remain within the approved budget. A possible way to reduce Agency costs (one less meeting in 2007-08) was considered. This would result in a total of four Agency meetings plus the annual report workshop and conference calls. This would potentially free up more office time to review documents for all Directors. The negative consequences of deleting a board meeting, such as fewer opportunities to meet with Society members, were also mentioned. There was also a suggestion that a review of the Agency performance be considered in the budget as well as funds allocated for a five-year review of the *Environmental Agreement*. It was agreed that the final board meeting of the year could be cancelled if funds were not available (in March 2008). The Directors also discussed having the NSMA host an Agency meeting in the fall.

Final modifications to the Agency budget and workplan included reducing some administrative costs, additional time for review of the ICRP sections and comments, moving the Board meeting held in a community to the consultation section, and Director time to deal with *EA* review and consultations.

Motion to approve the 2007-8 and 2008-9 Work Plan and Budget as amended. Sheryl Grieve, moved. Tony Pearse, seconded. *Carried Unanimously* 

## PREPARATION FOR MEETING WITH OTHERS

*Andy Wong – Mackay LLP* 

The Agency has been advised that Director payments should be subject to deductions for CPP, federal tax and territorial payroll tax (when income is earned for work performed in the NWT). Jaida described to Andy Wong the nature of the work that the Directors do with their time, much of it acting like a consultant, and the remainder as a Director in the sense of being an employee. The decision was also made in 1997 that the Directors

would be compensated as private contractors. Andy Wong from the accounting firm for the Agency had been invited to discuss these issues with the Directors.

#### BHPB

A meeting date to discuss the ICRP would be suggested. Other topics for discussion during the BHPB staff visit should include the release of the LLCF water quality study and the environmental monitoring reports submission dates and wolverine monitoring. It was also noted that there is a planned *Environmental Agreement Signatories* meeting on May 24<sup>th</sup> and there could be a site visit around that date.

## AGENCY INTERNAL DISCUSSIONS

## Sable, Pigeon and Beartooth Chloride Discharge Criteria

It was noted that the new deadline for submission of comments is April 20, 2007. The Directors expressed interest in what concentration could be achieved at the outlet of the sedimentation facility (this was not provided). It was also felt that a lower level of chloride in the effluent released in the receiving environment would provide better protection of downstream aquatic life rather than using Horseshoe Lake as a mixing zone. Tim agreed to cite the AEMP reference where the presence of ceriodaphnia were found in lakes downstream of Ekati as these indicate the organisms most susceptible to reduced water quality.

Directors also suggested that the discharge criteria should be applied at the sedimentation pond outlet rather than 100 metres into Horseshoe Lake. This protects the entire lake and BHPB's forecast of chloride effluent can be used to set the appropriate effluent limit. There is also a section in the MV2001L2-008 licence that details acute toxicity requirements (Section G item 11 d). SNP stations identified in the licence include the outlet of Two Rock Lake and a station 500 m into Horseshoe Lake. It is not clear why BHPB is proposing the Horseshoe Lake station as the compliance point over the outlet of Two Rock Lake. BHPB is proposing an effluent limit of 313 mg/l to avoid effects at 100 m into Horseshoe Lake and then accounting for turnover and other hydrology factors, rather than using the simpler approach of the outlet at Two Rock Lake. In explaining the Agency position to be fully developed in a letter following the Board Meeting, it will be mentioned that the Agency remains concerned about the decrease in Cladocera populations in the Koala drainage system and that a precautionary approach is required in the SPB drainage system with regard to chloride discharges too.

## Gartner Lee AEMP review

The Directors noted that the Gartner Lee AEMP review suggests that there is a need for the LLCF water quality study but states that BHPB has committed to reporting all measured parameters. The issue is not whether the measured parameters are reported, but whether there is any analysis of the selected parameters to determine trends and management responses. The Directors also strongly disagree with Gartner Lee's interpretation of cumulative effects to those aquatic effects in Lac de Gras coming from BHPB alone.

BHPB Response to Geochemical Characterization and Metal Leaching Management Plan Comments

The Directors discussed the issue of freezing of coarse kimberlite as shown by information in the annual seepage reports. The coarse kimberlite tends to remain at around 0° C in the Panda and Misery waste rock piles. In its response sheet (#8) BHPB does not agree with Agency comment on freezing of coarse kimberlite.

# SENES Air Quality Report Review

The Agency has received a brief progress report from SENES on the Air Quality Monitoring and CALPUFF modeling reports it is reviewing. Observations included the following:

- The comment about the accuracy of the emission inventory data from Diavik should be clarified;
- CALPUFF modeling appears to be based on wind data that should be verified and the objectives of the modeling are not clear;
- A review of the vegetation/lichen sampling and analysis is not yet complete;
- Suspended particulates appear to be the most important issue in the SENES review; and
- Grid spacing as selected by BHPB is an issue. Where ambient air quality standards are to be met requires clarification (edge of claim block or at edge of project footprint).

# Multi-Project Environmental Monitoring Agency Update

Sheryl (on the MPEMA steering committee) provided the Agency with an update on the current status of MPEMA. The MPEMA Aboriginal caucus met and a budget structure was presented based on the work plans of the three existing agencies. This structure includes a core budget and other activities related to *EA* differences. By adding the annual budgets of three existing agencies, (\$1.6 M) it was proposed that a reduction of 12.9% would be attainable (to \$1.4M). The caucus responded to the proposed budget in areas where it was deemed inadequate. It appears that the remaining terms of reference of MPEMA is more or less resolved, from the steering committee perspective, once the budget is agreed to. The likely outcome of this is a proposal to set up MPEMA sent to the signatories for comment and perhaps a decision to move forward.

#### WRRB Hearing

Kim provided an update on the WRRB public hearing regarding ENR's proposal for changes to Bathurst caribou management. Some issues raised at the hearing included:

- questions as to the accuracy of herd numbers;
- inadequate explanation of the differences in herd and survey methods;
- Tlicho government was of the view that GNWT had not complied with the consultation requirements of the land claims agreement; and
- the WRRB adjourned the hearing to allow for the consultation to take place and GNWT is to respond by April 23, 2007.

In terms of GNWT's caribou work, there is apparently \$1.6 million available for 2007-8. There are plans in place to survey the Beverly herd this summer and the Ahiak herd in

2008. In addition to the Beverly survey, all other mainland herds are to have their calving grounds delineated this summer, a very large task that will involve government biologists from several other jurisdictions. Current Bathurst herd bull to cow ratios may be a concern among elders but not based on the literature and experience from other areas.

Action Item #1 – Kevin to contact the WRRB to discuss status of the public hearing on the proposed management actions for the Bathurst caribou herd.

## Cumulative Effects Issue

The Directors had a discussion on management of cumulative effects in the NWT and Nunavut, and more particularly, as it relates to human activities in the Slave Geological Province and those species and VECs found in the vicinity of Ekati. Responsibility for managing effects is collective and the monitoring portion (Cumulative Impact Monitoring Program) is found in Part 6 of the MVRMA. CIMP is an element of Cumulative Effects Assessment and Management Framework, a federal commitment made as part of the Diavik environmental review. No funding is in place to implement either CIMP or CEAMF. In addition, several groups that have a responsibility to implement portions of the plans resisted creating an entity with overriding authority over cumulative effects assessment and management. DIAND still has responsibilities for CIMP. The Directors also inquired about the availability of a hard copy of the NWT Environmental Audit.

Action Item #2 – Staff to obtain a hard copy of the NWT Environmental Audit and to send access information to the Directors.

## Review of Bathurst Caribou Herd Monitoring Program

The Directors discussed a draft letter proposing a review of Bathurst caribou herd monitoring programs:

- Comments were received from EMAB and incorporated into the revised version for this meeting; and
- Deliverables and timelines might be modified in light of the slippage.

Action Item #3 – Kim and Kevin to review the draft letter and modify the draft terms of reference for a joint review of Bathurst caribou herd monitoring programs for further distribution.

## Agency 2006-7 Annual Report

The Directors discussed the upcoming annual report preparation schedule:

- Late April expectation that reports from BHPB will be available;
- May 4<sup>th</sup> absolute deadline for receipt of reports for inclusion in annual report;
- May 15<sup>th</sup> technical chapters due to Outcrop;
   May 24<sup>th</sup> meeting to review recommendations and get responses from government and BHPB.
- End of June printing date so that the Agency can meet its commitment to complete work in the first quarter of the new financial year.

The Directors considered recent developments that suggest annual environmental reports from BHPB would be delayed and the potential for an Agency recommendation to amend the *EA*, as part of the five-year review, to include a deadline for submission of monitoring reports.

# **MEETINGS WITH OTHERS**

Meeting with DFO – Bruce Hanna

*Independent Oversight* - The Directors suggested that the informal proposal for independent oversight of aquatic monitoring is an interesting concept. A number of aspects of coordination and consistency in monitoring programs and protocols were discussed.

*ICRP review* - The Directors asked how the Agency could assist DFO in terms of reviewing and improving the ICRP. Bruce replied that DFO has an obvious interest in the potential pit lakes in terms of fish access and as viable habitat. On the subject of habitat compensation, it is up to DFO to evaluate the success of BHPB's work and this is not up for discussion again during the ICRP to leverage the pit lakes into viable fish habitat. DFO has suggested that BHPB consider using Beartooth as a site to test a pit lake for meromictic conditions and fish suitability

Fish survival in PDC – It was noted that with the grayling fin clipping program, BHPB should have recaptured some of these same fin-clipped fish in the PDC last year. This would demonstrate that the PDC is providing quality stream habitat and working in terms of the habitat compensation scheme. Bruce mentioned that the PDC is improving over time in terms of revegetation and other habitat improvements. There could also be another diversion channel in the Pigeon Pit development that would benefit from the experience gained in the PDC.

*AEMP review* – DFO agrees with a reduced shallow benthos/sediment sampling program but would like a more robust zooplankton monitoring regime.

Meeting with WLWB Staff (Sarah Baines and Zabey Nevitt)

WLWB update - The WLWB is moving its Yellowknife operations into a new office space a few blocks from the Agency. It also will be undertaking an external review of its operations, rules and procedures. Proposals have been received and the project will begin shortly. A scoping and interactive phase may involve interviews with Agency personnel. Sarah also circulated a new tracking sheet for all outstanding reports under the Ekati water licences.

AEMP review - GLL will be looking at BHPB's responses and putting together a final report on the AEMP review. The directors mentioned two comments from the GLL report that could require further clarification:

- 1. BHPB committed to measure all parameters (raw data not analysis of many parameters and detailed evaluation of select parameters).
- 2. GLL agreed to the utility of having the LLCF water quality study (BHPB is likely to have this in early fall or late summer)

Deadline extensions – BHPB has received many extensions for required reports and plans and there was a recent meeting between the WLWB staff and BHPB to address this issue. The Directors mentioned that the Agency and others are now unable to make recommendations that could influence the following field season due to delayed arrival of monitoring reports. The WLWB staff are trying to work with BHPB on this problem.

Cumulative Effects – The Directors noted that GLL construes that cumulative effects are the effects of the Ekati mine on Lac de Gras and nothing else. More important are the combined effects of all human activities on Lac de Gras. WLWB is looking into licence wording and what it can require BHPB to do. The WLWB staff also mentioned that the Board has already decided on the wording and interpretation of this section of the licence, but the Agency is free to submit its own comments on this issue, to help the Board work with what is in place. Sarah noted that DIAND is developing guidelines for AEMPs to encourage project-specific monitoring contributes to cumulative effects assessment and management.

*ICRP* – WLWB is drafting a letter to help clarify the current state of review of the ICRP report. One issue is that the executive summary would be better dealt with at the end. The WLWB is considering using a facilitator to assist in the first working group meeting. Some of the comments raised by the reviewers are outside of the WLWB jurisdiction, for example a socioeconomic transition plan is something that the WLWB cannot approve.

Directors noted common themes amongst the reviewer comments on the ICRP especially the need for further work and clarification on the objectives and criteria. The WLWB staff replied that over time, objectives and criteria can be modified and it is not possible to have these concepts completely defined in this version. The staff hope to use the first working group meeting to reach consensus on the conceptual structure and organization for closure objectives and criteria to guide the review of the rest of the document. The Agency replied that, while criteria could certainly be changed during the review of the ICRP, the mine component specific objectives were too important as they determined what the WLWB would require BHPB to do and would shape the options for dealing with the mine components. The WLWB staff complimented the Agency on its ICRP submission where concerns and issues were clearly identified and options or solutions were presented.

Geochemical Characterization and Metal Leaching Management Plan – The WLWB staff noted that a response table was received from BHPB replying to reviewer comments. The Directors noted that kimberlite in the waste rock piles is not freezing, contrary to BHPB's assertions. Management implications of monitoring and research is not always apparent in the seepage report. The Directors noted that it may be up to

BHPB to decide what to do to manage the site but at least it ought to recognize the role and value that its technical consultants have in offering advice.

Meeting with Mackay LLP - Andy Wong

The Directors welcomed Andy and mentioned their interest in making sure that appropriate financial procedures are being followed. The Directors mentioned that the Agency was not established pursuant to legislation although it is a non-profit society that is an advisory body. This led to a discussion whether Director compensation should fall under the self-employment classification. Andy replied that he recollected his conversation with the Agency Secretary-Treasurer years ago that Directors are not employees and provide independent advice. Andy at that time suggested using the T4A slips. Although most of the Directors duties are to provide independent advice they also have authority to hire employees and determining a work plan and budget so for a portion of their duties they are more indicative of employees. Rather than trying to split off some income and report using a T4A, Andy is now recommending that Directors simply be treated as employees and that they receive a T4. CPP contributions and income tax should be deducted at source. He noted that the Agency's treatment of Director income for the purposes of GNWT payroll taxes is the correct procedure. Andy also advised that the Agency should be paying Directors as individuals, not through another organization.

*Motion* - Starting April 1, 2007 Directors will be considered employees of the Agency for the purposes of taxation.

Jaida Ohokannoak, moved. Kim Poole, seconded.

Carried unanimously

Action Item #4 – Kevin take action to implement new tax procedure for Directors with the Agency bookkeepers.

Action Item #5 – Kevin draft a letter to the NSMA stating that it will be necessary to make future payments directly to its appointed Director.

*Meeting with BHPB – (Laura Tyler, Brent Murphy, Charity Clarkin)* 

BHPB staff indicated that they would begin work on the first cheque for the Agency for 2007-8. A written response to the Agency's 2005-6 Annual Report recommendations was provided at the meeting.

As BHPB was unable to discuss the Agency's comments on the ICRP, it was suggested that a teleconference between the Agency and BHPB be held on April 11, 2007. Laura will confirm BHPB staff availability.

As the Resolution Agreement meeting was scheduled for May 24, 2007, the Agency suggested that site visit might be scheduled around that date. BHPB replied that earlier in May would be preferable due to the influx of contractors at the beginning of summer but indicated it would get back to the Agency on dates.

Currently BHPB is working on the annual monitoring reports and hopes to distribute them by the end of April. Brent has already reviewed the Annual Environmental report. BHPB agreed to get back to Tim on an issue of clarification of proposed chloride discharge objectives (from 180 in original Tier I report to current proposed 313 mg/L).

Action Item #6 – Tim to send an email to Brent and Laura regarding clarification of the justification for the suggested chloride discharge limit under the SBP water licence.

Freezing of Kimberlite – BHPB acknowledged the non-freezing of the kimberlite and mentioned that continual deposition of processed kimberlite waste is a heat source for the waste rock piles and may contribute to the inability to freeze the kimberlite rejects. This could account for temperatures measured inside of the waste rock pile and will be monitored carefully into the future.

Wolverine Monitoring Results – The Directors inquired about when results from the wolverine monitoring program (DNA) might be available. Brent replied that these results would not be released until the company (and other 2 mines) had an opportunity to review completed reports. He mentioned that no further wolverine monitoring may be carried out although the company is considering whether snow track sampling might be added again (for 2008).

BHPB Operational Update Summary—BHPB staff provided an operational update including details on the company's successful energy conservation initiatives. The key points from the presentation are summarized below:

- BHPB had a winter exploration program at Jay, Cardinal (southeast of Jay in Lac du Sauvage) and Pigeon pipes;
- A feasibility study for the wind turbines is awaiting corporate approval;
- The plumbing for the transport of underground saline water to the process plant has been completed. When asked by the Agency, the company responded by stating the water had 7,000 to 10,000 ppm. That way, they are only stupid. of chloride and no isotope analysis had been done;
- BHPB Diamonds has a new president, Riccus Grimbeck, a new environmental team leader on site (Richard Elbert) and is recruiting for four other environmental positions;
- A rabies outbreak has been noted in the Lac de Gras region and one of the company's employees was attacked by a rabid fox;
- A TK workshop was held recently in Kugluktuk and a larger group of elders will be coming to the site this summer;
- The new incinerator is to begin operation in June;
- Two new hi-vol air samplers are to be installed this summer along with continuous air quality monitoring equipment;
- Land and water inspections were carried out by DIAND on September 19, October 24, December 6-7, January 30, February 20 and March 20;
- Diavik is not coordinating its caribou monitoring with BHPB;

- As of June 2006, 1.5 million litres of fuel have been saved at site compared to the previous year due to its energy saving program;
- A successful vehicle no-idling campaign continues at the site. It was noted that vehicle fuel consumption used to double from June to February with no real apparent reason other than colder temperatures and idling;
- Staff expect corporate approval of the wind generators very soon with mobilization in the winter of 2008 and construction that summer;
- Ekati won an internal BHPB energy conservation award in 2003 and a nation-wide energy conservation award in 2005.

Rescan's technical review of the McDonald and Gunn GNWT technical manuscript on caribou faecal pellet analysis, conducted at the request of BHPB, was briefly discussed. The review was highly critical of the manuscript even though the researchers did not have the cooperation of the company in providing access or data. BHPB does not intend to modify or add any monitoring programs as a result of the technical review.

Action Item #7 – Staff to obtain the DeBeers wolverine results presented at the IAIA conference on wildlife effect to better understand what type of results may be possible.

Action Item #8 – Staff to request ENR to provide a status report on the wolverine monitoring results and a description of the arrangement it has with the mining companies.

Action Item #9 – Staff to draft a letter to the WLWB on the lack of freezing of the kimberlite rejects in the waste rock piles and the need to carefully monitor and to use adaptive management.

Meeting with SLEMA – David White

David provided a SLEMA update to the Directors. SLEMA conducted a three-day winter road workshop and toured the spur road portion from Snap Lake to the junction of the Tibbit-Contwoyto road. A wildlife workshop followed with board members and the TK panel, and DeBeers presented its wildlife programs. Golder is the consultant running the Snap Lake WEMP and its 2005 report is likely to be available soon.

SLEMA is developing its annual report and Outcrop is producing it. Agency staff offered to share their experience with annual reports with the SLEMA staff.

SLEMA will be hosting a May workshop and core group meeting on fish palatability methodology including participants such as DeBeers, the TK panel and DFO. A site visit will take place in May with an emphasis on water treatment.

Joint Bathurst Caribou Monitoring Program Review – SLEMA passed a motion to approve working with IEMA on this project and to possibly dedicate some funding for this initiative.

*MPEMA* - SLEMA has existed since 2004 with a two-year timeline to roll into MPEMA. That deadline has passed but SLEMA will continue to operate until MPEMA is established.

*Wildlife Monitoring* – wolverine snow track surveys are underway. David was not sure of the status of the DNA monitoring. Rabid foxes have not yet been seen at site but it has been mentioned that it is difficult for the mine staff to deal with problem wildlife as ENR enforcement officers are not located nearby.

Next Agency board meeting was tentatively scheduled around May 24<sup>th</sup> followed by a September community meeting.

Meeting Adjourned

Summary of Discussion Approved By

-ORIGINAL SIGNED BY-

Jaida Ohokannoak, Secretary-Treasurer