

***Independent Environmental Monitoring Agency
49th Meeting of the Board of Directors
Yellowknife, NWT
March 24th – 26th, 2006
Summary of Discussion***

Revised: April 21, 2006

Directors

Bill Ross

Tim Byers

Tony Pearse

Jaida Ohokannoak

Sheryl Grieve

Staff

Sean Kollee

Kevin O'Reilly

Added to agenda

Personnel matters

Site visit planning

ICRP consultation process

Review of *WWPKMP* and MSDS information

Removed from agenda

Meeting with BHPB (staff unable to attend Agency Board meeting)

Information Updates:

In addition to routine Director responsibilities such as review of reports and intra-Agency communications and attendance at the Agency reclamation workshop:

Bill attended two EIR meetings (air quality and wildlife monitoring), the ICRP working group meeting and made a presentation at the IAIA conference on wildlife monitoring at Ekati. Bill also came across a couple of TK related research papers and provided a copy to the Agency.

Tim attended two EIR meetings on (water and air quality monitoring). He mentioned that five of the six recommendations from the Agency submission to the MVEIRB regarding its TK guidelines for developers were incorporated in the final document.

In his capacity as a consultant, not as a Director, Tony provided advice to the Tlicho Grand Chief on whether the diamond mines have any impacts that may fall outside of the Wek'eezhii area.

Sheryl attended two EIR meetings (wildlife and air quality monitoring) and the Bathurst Caribou workshop (some of the issues raised there included hunting tags, wolf control, lack of Ahiak Herd population estimates, and consultation). She mentioned that David White had been hired as the new executive director of SLEMA.

Jaida was unable to participate in recent agency activities due to her physical rehabilitation commitments but has since caught up on much of the Agency business.

Kevin attended various meetings (all of the EIR sessions), the Bathurst Caribou workshop (and distributed a document from GNWT on managing barrenland caribou) and the ICRP working group meeting, discussed wolverine monitoring with Rob Mulders (GNWT), distributed a report on the reclamation workshop to expert reviewers for comment and sent letters on participant funding and Director appointments. He has continuously updated the Agency finances.

Sean attended many of the meetings listed by Kevin and worked on the reclamation workshop draft report, reviewed the Mining Association of Canada program 'Towards Sustainable Mining', and developed a table on the success of the Agency's intervention in the water licence renewal process.

MEETINGS WITH OTHERS

Environment Canada and GNWT (Dave Fox and Graham Veale)

The Directors invited Dave and Graham to discuss the air quality monitoring to assist the Agency in better understanding recent progress on BHPB's monitoring at Ekati.

Comments from the Regulators - Dave presented a collection of documents related to air quality monitoring commitments and correspondence since the 1995 EIS. GNWT and EC share a major concern that the monitoring currently does not measure ambient air quality and that BHPB committed to have an ambient air monitoring program. Participation of GNWT and EC in developing BHPB's air quality modelling has been inconclusive thus far. BHPB's recent modelling exercise was not run to provide ambient air quality and this is a disappointment for the regulators. Dave noted that BHPB's obligation to do ambient air quality monitoring was made in the additional information that was filed by the company during the panel review and in the Environmental Agreement. They referred to a commitment table (15.1 page 6) that lists ambient monitoring commitments such as SO₂, NO₂, continuous monitoring, high volume sampling and stack testing of all sources for SO₂, NO₂ and total suspended particulates. That has not occurred.

There is less detail found in the *EA* vs. the commitments table regarding air quality monitoring. Air quality monitoring is also required under the GNWT *Environmental Protection Act* and guidelines exist for ambient air quality. There is a legislative gap in the NWT for air quality standards but there have been recent high-level discussions within EC to help fill this gap. In southern Canada the provinces have jurisdiction over air. EC and GNWT viewed that the air quality work done in 2002 tied to the EIR 2003 as inadequate and this was supported by the Agency review undertaken by SENES. The consultant was of the view that enhanced modelling would provide a better understanding related to potential acid deposition, dust and ambient conditions from the mine site. The original modelling proposal from BHPB included analysis of ambient conditions to allow

deposition predictions. Conversion of NO to NO₂ needs to be measured for the purpose of the model. BHPB simply presented the deposition but not the ambient conditions. The model provides this information yet BHPB appears to have not included this information in the report that was described in the air quality EIR technical session. BHPB has since claimed that regulators did not request ambient conditions and only wanted deposition (this is not reflected in correspondence from the regulators). The dispersion model exercise aids in determination of problems particularly in the absence of a proper monitoring program. The regulators encouraged collaboration with company rather than criticism after the modelling work is complete. Dave and Graham sent detailed comments to BHPB on the modelling but the company has not responded. An emission inventory was then circulated and GNWT and EC commented on that as well. BHPB then presented modelling results at the EIR air quality workshop for deposition without ambient air quality predictions.

Snow sampling - this monitoring was done in April 2005 and vegetation was sampled in August 2005. Some results were shown in the EIR technical session. The CALPUFF model will also allow selection of better sampling locations for future monitoring. Dust from the LLCF is thought to be intermittent and BHPB is considering a full air quality monitoring station that would be a considerable expense. This is intended to replace the high volume sampling with continuous monitoring that the regulators believe is needed. BHPB discussed equipment requirements with the regulators including technology that allows real-time information to be made available. SO₂, NO₂ and particulates are thought to be key for monitoring.

Incinerators – Indoor air quality at the mine site could be improved by relocating the incinerators farther away from air intakes. Incineration is not an ambient air quality issue but more of a deposition concern as some toxins can persist and accumulate. Dirty or discoloured snow at the mine site is thought to be an indication of poor air quality by Aboriginal communities. A sample of snow would be needed to determine what the problem could be.

The regulators mentioned recent monitoring of hospital incinerators in the NWT and that there are Canadian standards for incinerator emissions. Three NWT biomedical waste incinerators were tested and all failed including two brand-new incinerators. There must be proper operator training and rigid segregation of plastics. BHPB was commended for upgrading its incineration through the purchase of a high quality machine but regular operator training will be essential. Waste segregation at Ekati is key as plastics contain chlorine that can lead to the creation of dioxins and furans. Government is developing some guidelines that could include a list of qualified operators so the inspector could review who is operating the incinerator. Annual stack testing is desirable but often expensive (could be \$40k including lab work and travel) but could be coordinated with other testing of northern operations. The potential for incinerator-generated contaminants to get into fish located in nearby water bodies was raised.

The DIAND inspector received notice and provided approval to BHPB to install the incinerator. DIAND is of the view that it does not deal with air quality issues so is not

responsible for inspecting for environmental effects from incineration. The *Waste Management Plan* should describe what material goes to the incinerator (should be only food waste and related items that could pose a problem for wildlife). Segregating plastic is a low cost way of reducing toxic emissions. The Directors decided to review BHPB's *Waste Management Plan*.

Methods – Snow sampling information from BHPB was valuable though there were some problems with the methods. BHPB attempts to demonstrate that there are no ambient air quality issues by sampling snow but this is not an appropriate technique. Elevated sulphate levels were observed 18 km from the sources and has led BHPB to increase the rigour of its sampling within this region as a means of predicting the extent of impact. This additional sampling is not particularly useful and the regulators require ambient air quality modelling and monitoring rather than more snow sampling. There are no established thresholds for dust effects on caribou.

There are also sampling protocol issues with the snow sampling. Normally a lab would condition filters to control for humidity. Snow samples are also melted overnight and shaken for sub sampling and this may eliminate any ammonia present. Nitrates in snow at Ekati are lower than the background levels detected at a national monitoring station at nearby Snare Rapids which raises some concerns over the results measured by BHPB.

Regulatory Issues - EC has realized that there is a stewardship mandate for air quality related to operations located on federal lands. EC is pushing for the regulation of new facilities in the North, including the application of Canada wide standards. This approach proved successful in a recently issued NIRB project certificate for a mining project.

Worker Safety – A discussion of worker safety related to operating machinery in pits took place. It did not appear likely that workers would be exposed to undue risk in the pits and this matter is regulated by the Workers Compensation Board.

Agency Involvement in monitoring air quality – the Directors noted that the Agency may comment in its annual report that regulation of air quality needs to be enhanced. It was also observed that DIAND has a fiduciary responsibility to protect the environment for Aboriginal peoples. The Agency has a role in following up on commitments made during the panel review of the Ekati project and in the Environmental Agreement. The two governments also have a role in reviewing the annual report from BHPB and the DIAND Minister can act if there are deficiencies. The Directors invited EC and GNWT to continue to copy the Agency on correspondence to BHPB on air quality. It was agreed that the staffing situation has changed at the company over the years leading to some discontinuity.

Follow-up to meeting with EC and GNWT

The Directors discussed the key issues raised at the meeting including the commitment to ambient monitoring that BHPB appears not to have implemented, the lack of engagement of regulators by BHPB that is troubling to observe from an adaptive management

perspective, issues with sampling protocols (high volume and snow), need for incinerator operator training and waste segregation. The Directors noted the air quality report that is in preparation by BHPB should include a discussion of 2005 snow sampling, CALPUFF modelling and deposition predictions and that BHPB should report on ambient predictions. In addition, a good prediction of ambient air quality based on a sound emissions inventory will reassure the Agency that ambient air quality is not a problem. The Agency would also like BHPB to show how locations for snow sampling were arrived at. A letter to BHPB should ask the company to ensure that regulator input into model development is important and that a more collaborative approach will mean a better model and monitoring. The Agency is not confident of the snow chemistry data based on issues raised by the regulators related to sampling protocols. It was also mentioned fish sampling from Kodiak Lake could productively include analysis for organochlorines to test whether there may be any inputs from the current incinerators.

Action item # 1 – Staff draft letter related to air quality monitoring and circulate to Directors.
Action item #2 – Sean look into BHPB’s <i>Waste Management Plan</i> to determine what is incinerated with respect to plastic.
Action Item #3 – Sean check on last air quality report to determine if cadmium was evaluated in snow and vegetation.

Meeting with MVLWB (Sarah Baines)

The Directors who participated in the ICRP Working Group commended Sarah for the excellent job of chairing the meeting. A discussion took place on BHPB’s approach to consultation with the various parties on reclamation issues for incorporation into the ICRP. Sarah replied that a lot of comments focussed on the period between approval of the ToR and delivery of draft plan to MVLWB and the role the Working Group might play in development of the plan. The Board, however, is not providing direction or making recommendations on those topics. It is up to the parties to determine how BHPB is to use stakeholder advice and it is BHPB’s responsibility to develop the plan. It was agreed that concern with BHPB’s efforts to date have been noted.

The Directors asked Sarah if the scope of ICRP can include all regulatory instruments and EA related items. She agreed that having one closure plan would be desirable rather than one for each water licence or lease but that the Board had no jurisdiction with regard to the acceptability of the ICRP for other regulatory authorities. She mentioned that the Board would determine issues related to security and make recommendations in the final version of the licence for the consideration of the DIAND Minister.

The Directors asked Sarah if the MVLWB has consultation guidelines. She responded that it does not but internal policy on completion of an application does exist. The Board realizes that the DIAND Minister has authority over issuing of ‘type A’ water licences. She also mentioned that section 35 of *The Constitution Act* has been cited as being violated in other resource developments where affected parties did not feel properly consulted. It was noted that the adequacy of BHPB consultation could be an issue when

the closure plan is submitted. Sarah replied that the Board could not determine if consultation is good enough as that is DIAND's job in a legal sense. The Board must satisfy itself there has been meaningful consultation but there are no standards, although it would be helpful to have standards. MVLWB is also lacking a policy advisor who could assist with developing new policy regarding consultation.

Sarah mentioned that the MVLWB and WLWB are attempting to transfer files to Wekweti by August 2006 and by January 2007 the WLWB may be in a position to begin to manage smaller files with its own staff. A decision is also needed quickly on small diamond recovery and chloride use in processing Fox ore at Ekati. Comments on those sections of the WWPKMP are due March 31st while comments on the rest of the plan are due May 5th.

Material safety data sheets were discussed for chemicals used in settlement of tailings water. The NSMA has discussed this with Sarah and she was not able to locate MSDS sheets on the various chemical substances. Some patented substances do not have transparent chemical substances. It was decided that the NSMA should ask the MVLWB and/or BHPB directly for this information.

Meeting with DIAND – Lionel Marcinkoski

The Directors asked Lionel for an update of a variety of issues including the following:

MPEMA – a draft ToR remains under review. A steering committee meeting planned for March has been rescheduled to mid May or later. DIAND would like the ToR to be finalized. Charlotte Henry (DIAND) is the lead on that file.

Director Appointments – DIAND is preparing a letter stating that the process has gone on too long and it will respond to letters from the Agency and BHPB. DIAND believes that water management and wildlife expertise are required on the Agency board. The signatories have reached agreement on one nomination but there was no agreement on the second candidate.

ICRP Meeting – DIAND views that the roles and responsibilities for the development of the ICRP are clearer and that the Working Group meeting was helpful. BHPB was provided with a message that not all stakeholders are satisfied with attempts at consultation and there is an impression that decisions have already been made by the company regarding closure options. There was some suggestion that the BHPB timeline showing consultations over the summer will be difficult to achieve given the short summer field, hunting and vacation season.

DIAND Guidelines for community engagement for proponents – no detail available yet as this issue is also related to participant funding. DIAND has not received any new guidelines on consultation related to section 35 Aboriginal rights. Directors mentioned that some first nations are developing guidelines themselves on how they would like to be consulted. The Yellowknives Dene have commented that they would like to look at

company material themselves and have company present at a later date once they have had time to review the material.

Staff Changes - Eric Yaxley is now in charge of the DIAND Board Relations Secretariat. Eric used to be in charge of the MPEMA, SLEMA and Gachoe Kue files for DIAND. Scott Stewart was hired in a capacity as an Inspector and is receiving training.

Meeting related to EA Implementation (pursuant to the Resolution Agreement) – DIAND representatives are able to meet on the date proposed by the Agency (May 18, 2006).

IACT schedule – It has been difficult to schedule an IACT meeting as there have been a lot of other meetings and events related to Ekati.

Meeting with WLWB Executive Director Zabey Nevitt (by teleconference)

Zabey announced that he had accepted the position of Executive Director of the WLWB effective March 1, 2006. Directors viewed this as a positive development and asked about the transition of files to the WLWB (the WLWB became effective February 4th, 2006 for land and water regulation in Wekeezii). The Board was able to meet but lacked quorum until November 2005. Three months remained to process applications and begin assuming responsibility. Partial staffing has occurred (there is an ED and administrative staff in Wekweti). Hiring of a transition officer (role to move the files over to Wekweti and help Board and staff understand its responsibility) and regulatory officers are underway and should be staffed shortly. The MVLWB also has committed to resourcing the WLWB for as long as necessary. The Agency will continue to meet with Sarah (RO for MVLWB) as an arrangement exists under the MVRMA section 8 where boards can share staff and work together. The MVLWB staff will continue to administer the licence although decisions are to be made by the WLWB. Bob Wooley will be available to provide advice as needed.

Directors asked about the possible approval of the ToR for the ICRP. Zabey replied that if there is an approval the WLWB would make the approval or not as required. Directors asked how long it may take before WLWB appoints a RO to the Ekati file. Zabey suggested that the WLWB wants core files out of MVLWB in the next 3-4 months (those files other than Ekati and Diavik). The WLWB lacks the resources to administer to the two major projects at this time and will engage DIAND in a discussion regarding funding. The MVLWB will be examining how much this work costs them (staff, legal, technical) thus a transition time of up to a year is expected. The WLWB will be making the decisions working closely with the staff including those with the MVLWB.

The MVLWB found that there were no impacts from the diamond mines outside Wekeezhi and the file were automatically transferred to the WLWB. No reasons for decision were necessary as there was no decision made that the projects were transboundary in nature. Zabey noted that a letter from BHPB requesting reasons for the boundary ruling on the diamond mine files. Zabey responded that technically there was not a transfer as Ekati would automatically become a WLWB file unless the MVLWB

decided there would be transboundary implications. There was a MVLWB staff report that is on record related to the boundary decision that was provided to the company.

Akaitcho Treaty 8 Letter to WLWB – Zabey discussed an issue that had been raised between Treaty 8 and the Tlicho. It is not a matter for the WLWB as the WLWB draws its powers and structure from the MVRMA. In its response the WLWB copied its comments to the Tlicho government and urged resolution and dialogue take place.

Zabey commented that Violet Camsell Blondin was nominated as chair and the WLWB is awaiting confirmation of this appointment. The Federal Minister also can make another appointment to backfill Violet’s seat if she is appointed as Chairperson.

AGENCY INTERNAL BUSINESS

Letter to BHPB regarding the Annual Environmental Report

The Directors discussed a draft letter to BHPB regarding reporting its community consultation efforts as part of its annual environmental report. Agreement was reached on the text and staff were directed to finalize the letter and distribute it. There was a further agreement that the Agency should report on its community consultation efforts as part of our Annual Report.

Action Item #4 – Directors to develop summary of individual consultation activities undertaken in 2005-6.

Agency Finances and Administration

Personnel Matters - the Agency parental leave provisions were discussed and Sean was requested to submit a proposal to the Board for discussion. Upon reviewing the proposal, the Board agreed to it in principle with but a few details to be worked out. Sean’s performance evaluation was also reviewed and approved by the Board.

Director Expenses - Sheryl was invited by the Board to submit, as soon as possible, honouraria and expense claims covering the period from her appointment to the end of the financial year. Sheryl indicated that the budget available for Director activities outside of Board meetings is not sufficient for a Board member to be fully informed.

Financial Report - Agency finances were discussed in terms of the year-end expenditures for 2005-6. Approval was given for the expenditures outlined by the Manager.

Kevin provided an updated draft of the 2006-8 core budget and work plan to the Directors.

Motion to approve 2006-8 core budget and work plan.

Moved by Tony Pearse

Seconded by Tim Byers

Unanimous approval.

Motion to reappoint Jaida Ohokannoak as Treasurer

Moved by Tony Pearce

Seconded by Tim Byers

Unanimous approval

Reclamation workshop report status and next steps:

Directors were presented with the draft summary report from the reclamation workshop. Reviewer comments from presenters had not been included. Editorial changes were suggested and the staff directed to develop the draft into a final version.

Regarding distribution of the substance of the report to BHPB and Agency Society Members, the Directors reviewed sections of the report to be developed into a format suitable for distribution.

Action Item #5 – Staff incorporate changes to the draft Reclamation workshop report and create a final submission to Agency Society Members once approved by the Directors.

ICRP working group Meeting and Agency activities

The Directors who attended announced that participants at the meeting included MVLWB staff and technical advisors, KIA, DIAND, Environment Canada, (Lutsel K'e staff for part of the meeting) and BHPB but none from the Yellowknife's Dene or Tlicho. Helen Butler and Laura Tyler attended along with its consultant Clint Nauman for BHPB. Over a hundred comments from various agencies had been received including those from the Agency. These were responded to by BHPB in a table. Those attending the Working Group meeting found that BHPB staff responded well to most technical issues and agreed to make many changes. However, the consultation process was a fundamental concern of virtually all working group members and there was a consensus that the consultation was not well thought out. It was noted that the first round of consultation took place in the fall in some communities, for IACT and the Agency (this resulted in letter to BHPB from the Agency related to potential improvements in the process).

BHPB's plan to conduct an internal FMEA without involvement from the communities was discussed at the meeting. The participants viewed the internal FMEA as having the potential to narrow options for review in the community based MAA. BHPB is thought to be in the process of redrafting its ICRP ToR related to technical issues but not process issues, although BHPB presented a revised process at the Working Group meeting that included one more round of consultations and revised timelines. BHPB will conduct the FMEA and use the 2000 A&R Plan as a starting point. The Agency, and others, will not be involved in the process until after a shortlist of options has been developed. As in the LLCF exercise, the MAA will have pre-selected options and while this was problematic for many, the company intends to continue with this approach. The Directors also suggested the Agency may support a modest extension of the deadline for plan

submission to accommodate creation of an effective closure plan. The issue of the appropriateness of a July site visit was also discussed.

Action Item #6 – Staff develop letter copied to all parties related to the need for an improved process of collaboration consultation related to the development of the closure plan along with a diagram of improve stakeholder engagement.

Concerns of NSMA with regard to the BHPB consultation process

The Directors reviewed a request for the Agency to host a workshop with the NSMA on the issue of reclamation and closure. The Directors reiterated that the Agency should indicate to NSMA its standing offer to meet with the NSMA to discuss matters related to Ekati, such as the issue of closure planning. Directors and staff are available to meet but a workshop with consultants is a large expenditure that our budget cannot accommodate. However, the Directors believe that the letter to BHPB (above) will also be a constructive response to the NSMA letter.

EIR related discussion

Tim mentioned that Rescan was not prepared to discuss the Zajdlík report at the AEMP EIR session. He asked Rescan at the first session whether they had looked at the third-party AEMP review but Rescan had replied that Debra Muggli was not able to respond to the material while on maternity leave. After the air quality EIR meeting ended, BHPB expressed its concern that it was not part of the Agency reclamation workshop. The Directors expressed their need for the full annual environmental monitoring program reports in advance of and in order to work on the Agency annual report.

Action Item #7 – Kevin request BHPB update Agency on when monitoring program reports would be available.

Agency Review of BHPB Waste Rock Seepage Report

The Directors noted that the Agency comments on last year's seepage report were provided to the MVLWB after the MVLWB deadline. With the renewal of the Ekati water licence, the new clause states that this time around the Board needs to approve the seepage report and BHPB must include management consequences from information generated in the seepage survey. A focus of the Agency review should be a determination of whether the delivered report includes a discussion of these management implications. Our submission is due April 7th, 2006

Action Item #8 – Tony to review 2005 Waste Rock Seepage Report to determine if the Agency's comments have been incorporated or not and to advise on our submission.

Wastewater and Processed Kimberlite Management Plan (WWPKMP)

The Directors noted the MVLWB had sent questions to BHPB regarding chloride levels in LLCF in relation to the settling of Fox processed kimberlite. BHPB replied that limited amounts of chloride will be needed and it would manage any risk of release of such water. It was also noted that BHPB is working on a tier 2-risk assessment for chloride and the CCME guidelines for chloride in the downstream environment (150 – 230 mg/L). Death of aquatic life may occur at more than 2000 mg/L. The tier 1 risk assessment identified 70 mg/L to be a likely amount of chloride to be contained in LLCF effluent from cell E.

Action Item #9 – Tony and Bill develop initial review of *WWPKMP* sections on chloride and small diamond recovery and circulate to Sean for drafting and distribution.

Action Item #10 – Request an electronic copy of the Caribou and Roads TK study from BHPB.

Next Meeting – April 18th – 20th at Mayne Island B.C. for an annual report writing workshop.

Meeting was adjourned.

Summary of Discussion Approved by

-ORIGINAL SIGNED BY-

Jaida Ohokannoak, Treasurer.