# Independent Environmental Monitoring Agency 63<sup>rd</sup> Meeting of the Board of Directors Yellowknife, NWT January 13<sup>th</sup>-15<sup>th</sup>, 2009 Summary of Discussion

Revised:	: Fel	bruary	26,	<u>2009</u>

<u>Directors</u> <u>Guests</u>

Bill Ross David Abernathy, BHPB Tim Byers Helen Butler, BHPB

Tony Pearse (Teleconference 14 January) Mark Casas, DIAND Water Resources

Jaida Ohokannoak Lionel Marcincoski, DIAND Kim Poole (Teleconference) Mark Heyck, PWNHC

Laura Johnston

Brad Enge (January 13)

Staff

Kevin O'Reilly Scott Duguid

#### **REVIEW OF AGENDA**

- David Abernathy of BHPB will attend the meeting on January 15 to provide a general update
- Mark Heyck of PWNHC (Prince of Wales Northern Heritage Centre) will come in to give a presentation on how they created their timeline, because it might be a good model for the Agency chronology work.

# New agenda items:

- Evaluation of Manger needs to be completed by January 26, 2009. An in-camera session during this meeting was added.

#### INFORMATION UPDATES

In addition to routine review of Agency communications:

Bill – Chaired Environmental Agreement Implementation Meeting on January 12, 2009.

Tim – Reviewed and commented on the ICRP (Interim Closure and Reclamation Plan). Researched and provided Lutsel' Ke with correspondence regarding fish studies, and the transfer of tapeworms from slimy sculpin.

Tony - Reviewed and commented on the ICRP.

Laura – Commented on and drafted an Agency response to BHPB's proposal for a chloride Water Quality Objectives. Reviewed and commented on Northern Water Quality Standards. Reviewed the ICRP

Jaida – Dealt with regular agency communications and review of documents and reviewed the ICRP.

Brad – Had some contact with NSMA regarding a possible meeting with the Agency (sometime in March), review of Annual General Meeting summary.

Kim -- Attended a diamond mine wildlife monitoring meeting on December 17, 2008 and related follow up. Reviewed the ICRP.

Kevin -- Assisted in review of the notes from AGM, Environmental Workshop, and 62<sup>nd</sup> Board Meeting. Drafted, revised and distributed letters on DIAND's AEMP guidelines, the Northern Water Quality Standards discussion paper, and worked with Kim on a joint letter with EMAB and SLEMA on diamond mine wildlife monitoring. Set up for bank account signing authority for Brad. Provided an update on Agency activities for EMAB on December 11 and SLEMA on December 18. Set up for the contribution agreement with DIAND for external review of Agency. BHPB will also contribute to the external review and GNWT is to be billed directly by the consultant. Requested the warning letter related to the Fay Lake spill that was sent to BHPB from Environment Canada (EC). The response from EC was that it will not release the letter without an Access to Information request. Local EC officials are reviewing this practice.

Scott -- Reviewed the ICRP. Produced a summary of the AGM, Environmental Workshop and 62<sup>nd</sup> Board meeting. Attended the SLEMA meeting where an update was provided by Kevin. Made updates to Agency web site and installed files and software on new Agency laptop computer. Scott also attempted to recover files from detachable hard drive of stolen Macintosh computer.

The Directors agreed that the staff are authorized to purchase a new desk top computer for the Agency office.

# Action Item #1 Scott to research new desktop and purchase it with Kevin.

The Directors discussed the potential that there was Director personal information on the desktop computer that was stolen from Agency office over the Christmas holidays. Kevin review showed that there was no personal information stored on the stolen computer.

#### **ACTION ITEMS FROM LAST MEETING**

Kevin – there was no time to arrange for a consultant to carry out an external review of the Final ICRP.

Tim - did research issue of tapeworms and the transfer of tapeworms from sculpin to other fish. The above information came from Michelle Gray at University of New Brunswick.

#### **FINANCES**

Jaida presented the 2008-09 year-to-date expenditures and variance report. She reported that spending is on track and that there is expected to be full use of allotted funds. Currently the funds budgeted for Board meetings and review of documents is under spent, due to problems with the availability of some documents from BHPB. The Directors discussed the projected amount of time needed and the allocation of funds for specific document review through to the end of the financial year. The Directors discussed the potential re-allocation of these funds to expenses under the Separate Fund. Jaida informed the Directors that there are still some outstanding invoices from the AGM, and that we still had not received an invoice from our community visit to Lutsel K'e in September. Jaida advised the Directors that there are also unused funds available for community visits and consultation and communication. The Directors agreed to push forward on the work on the timeline chronology and a poster and adjust funds from communications or management as necessary. The Directors also discussed the allocation of funds and time required to produce the Annual Report.

Action Item #2 Budget to be produced for 2009-10 by end of February by Jaida and Kevin. A teleconference can be held to formally review and approve the budget and work plan.

No further adjustments to the work plan were suggested.

The Directors discussed the potential for filing an insurance claim regarding the stolen Agency computer. It was decided not to file a claim, as the amount of the deductable was roughly the same as the increase in premiums for making a claim and the value of computers declines rapidly. That is, the no-file option was determined to be financially prudent.

# WATER QUALITY OBJECTIVE FOR CHLORIDE

Kevin pointed out that another extension for comments has been granted to January 16, 2009, and that there is a draft Agency letter included in the meeting package. It was agreed that the letter could be improved by suggesting a process to set objectives, look at the receiving environment, and then set discharge limits, including an Ekati-wide standard. Postponing setting a chloride effluent discharge criterion may not make sense for only the Sable, Pigeon and Beartooth operations, as the LLCF and Watershed Adaptive Management Plan may be affected by the objective.

It was agreed that it would be better for DFO, not IEMA, to raise the concerns noted by the Environmental Protection Agency reviewer, but that this additional information was very helpful.

Action Item #3 Bill to send an e-mail to Bruce Hanna complimenting his initiative on reviewing the Water Quality Objective for Chloride.

#### DIAMOND MINE WILDLIFE EFFECTS MONITORING MEETING

Kevin supplied the Directors with a copy of the joint letter from the 3 monitoring agencies in response to the Diamond Mine Wildlife Effects Monitoring Meeting. Kim provided the other Directors with an update of the December 17 meeting. Kim summarized that it appears that there are two factor driving this initiative--cost savings and an attempt to reduce redundancy in monitoring programs by the mines. It was noted that aerial surveys are not valuable for monitoring behaviour as the plane or helicopter can influence caribou behaviour.

Kim has been asked to present a synopsis of 2004 caribou review. Directors discussed and agreed that and an expansion on comments that the aerial surveys probably do not need to be done every year. It was proposed that a better analysis would be to look at what is causing the ZOI and begin to mitigate it. Aboriginal Society members in the past have commented that there should be more ground surveys and further study of lichen. Money saved in reducing aerial surveys should be spent on ground surveys and lichen monitoring because that will provide more useful information for mine management. It was decided that Kim will attend the February 4-5 Bathurst Caribou Management Plan meeting on behalf of Agency. Kim will present the Agency position on improved wildlife monitoring. Kim stated that he will not be able to attend the follow-up meeting on February 23.

Action Item #4 Kevin to contact ENR about covering the travel costs for Kim's participation at Bathurst Caribou Management Plan and North Slave Research Workshop.

#### SPB RENEWAL INFORMATION REQUEST

It was agreed that it would be necessary to review BHPB's response to the WLWB information request on January 16, 2009 to assess whether it would be necessary to send anyone to the January 26 information session to be held by the company. Laura suggested that Kevin and/or Scott should attend the information session on January 26. Laura advised that she would like to participate in the pre-hearing conference call on January 30. It was also agreed to send Laura, Tim and staff to the public hearing on March 4-5 in Rae. The issues for the hearing appear to be effluent water quality criteria, shorter review period for documents, and the proposed changes to the cumulative effects assessment study.

Action Item #5 Scott to look into accommodation on the 4<sup>th</sup> of March, for Tim and Laura in Rae for Public Hearing on SPB.

# ENVIRONMENTAL AGREEMENT IMPLEMENTATION MEETING

Bill stated to the Directors that Laura Tyler (BHPB) suggested that any meeting presentations be circulated in advance in the future to allow for more efficient meetings.

Bill agreed that was a good suggestion. Bill summarized the BHPB PowerPoint presentation for the Directors who were not present at the meeting. BHPB stated that its exploration on the Ekati site has ceased. The option for use of wind power is being explored again. Water from the LLCF with high nitrate levels reached CCME guideline levels by September of 2008, and was released over the Fall of 2008. A revised Air Quality Management Plan is due for distribution in March of 2009. The latest version of the ICRP was released in December of 2008 and is in the final stages before a public hearing. Over 2008, lichen sampling and snow sampling took place. The Annual reporting requirements are underway. BHPB mentioned that it is ready to participate in the GNWT-ENR Wolverine monitoring program for 2009 but it may not go ahead as Diavik and DeBeers are not yet on side.

The Beartooth pit will be finished in operation in the next 12 months and there is a proposal to use it for minewater storage. BHPB suggested there may be experimental methods attempted for extracting kimberlite from under water at the bottom of Beartooth pit should this proposal be approved. If successful, this may reduce the size of rock piles as there would be no need to dewater lakes such as Sable. BHPB is aware this change in mining, should it be introduced, would necessitate an environmental assessment as it would be a significant change in the project. The use of the underwater mining method would reduce blasting and water contamination by ammonia and nitrates and from blasting material storage. BHPB added that most of the nitrate contamination comes from blasting, not from ANFO storage. The DIAND inspector is concerned with leakage from ammonium nitrate storage building.

Another update from BHPB is the potential use of a pavement style stripping machine to remove kimberlite from Fox pit. The advantage to this method is that there is much less blasting involved as only the edges of the kimberlite pipe and new benches need to be blasted.

BHPB mentioned that EC is releasing guidelines on incineration. The Protected Areas Strategy is attempting to get Daring Lake set aside as a protected area due to the GNWT research station that has been located there for many years and BHPB holds some of the mining claims that cover that area.

BHPB committed \$10k to contribute funding to the external review of the Agency External.

#### EXTERNAL REVIEW OF THE AGENCY

Kevin has produced an ad to be posted in News/North (NWT/Nunavut) and The Edmonton Journal. He will look at the possibility of advertizing in the Calgary Herald, and The Windspeaker (Aboriginal Newspaper). Kevin mentioned that DIAND, GNWT and BHPB staff would work with him to review the proposals and would then make a recommendation to the Directors who will make the final decision. Kevin suggested that the same evaluation criteria as last time will be used. This was agreed. The request for proposals will also be posted on the Agency website, sent to all Society members with

encouragement to distribute it further, and sent directly to some proven consultants including the Pembina Institute, McLeod Institute, Terriplan, Stratos, and Gartner Lee (AECOM).

# CHANGE TO WASTEWATER AND PROCESSED KIMBERLITE MANAGEMENT PLAN (BEARTOOTH PIT AS A SUMP)

The Directors agreed that the Agency should respond to BHPB's proposal to begin using Beartooth for minewater retention as early as later this year. There are implications for reclamation and closure and there was information provided on environmental trade-offs of this option versus others such as use of the pit for processed kimberlite deposition, storage of extra-fine processed kimberlite, or research and monitoring of pump flooding and meromixis. There may also be some uncertainty surrounding the introduction of chloride rich water to the pit, and its potential reaction with kimberlite. The Agency should also raise theses issues in the context of the ICRP.

Action Item #6 Kevin to draft letter of response by January 21, 2009 for review by the Directors.

#### TIMELINE PROJECT

Mark Heyck of the Prince of Wales Northern Heritage Centre (museum) attended the meeting to present information on the NWT History Timeline found on its website. Mark described the process where the PWNHC selected 50 events from a current poster series then added 50 more events once gaps were identified, to begin the process of laying the timeline out. The final 25 events that are included in the timeline were coordinated through social studies teachers. Outcrop Communications did the web design and set up work for the PWNHC. The site is based on a template set up by graphics designers, and then PWNHC adds the content. They use CBC news material for videos and audios; copyright laws prohibit them from using anything but the CBC information. Frame set is the style used on the website; it ties two pages together and is the style of web page when you navigate around the site so the user always has the top or outside frame. This style does not work well for storing the information to CDROM. The video clips on the site are 15 to 20 MB which is large for remote community internet connections. The media portion (video, maps, audio, photos) makes the page more compelling.

The Directors discussed possibilities for the Agency Timeline project. Kevin suggested that there could be links to Environmental Agreement, Water Licenses, etc. He proposed that he and Scott would meet with Outcrop and get some advice and costing on development of a template in the current financial year. Directors felt that the development of the timeline would require consultation with BHPB, and the Society Members. The Directors pointed out that the ability to add and modify is key to the timeline website. Another important aspect is the ability to put the timeline onto a CD so that it can be sent to people with limited broadband access. Tim mentioned that we should also be able to do a poster for people that do not want or have access to electronic data. Jaida suggested there are already some sources of information about the Ekati

mine, such as the information sheets produced by BHPB on the thermosyphons, that could prove helpful.

Action Item #7 – Staff to contact Outcrop Communications to get further information on developing the timeline.

# MEETING WITH BHPB (David Abernathy and Helen Butler)

David provided highlights of current mining activities in Fox, Beartooth, Koala UG and Panda UG. He stated that there were crusher issues that have caused some slowdowns, and that BHPB has ceased exploration on the Ekati property. David advised the Directors that wind power at the mine is being discussed again as an option. Helen added that storage and use of power from wind generation is one of the issues as the power has to be used immediately, it cannot be stored.

David mentioned that discharges from the LLCF took place when nitrate levels were below the CCME Guideline, from September to December 2008. David spoke about BHPB's improvements to air quality monitoring and that a new management plan should be submitted before the end of March 2009. He said the company is getting good data from high volume air samplers. David also mentioned BHPB's recent gold rating for its voluntary Greenhouse Gas reporting.

Helen advised that she spoke with the WLWB regarding the ICRP public hearing, and that it will likely go ahead. She added that BHPB continues to work with DFO on an agreement covering the pit lakes at closure.

David outlined that the current EIR will be modeled similarly to the 2006 report, and that BHPB will be using Rescan to complete the EIR which will be combined with the annual report.

David acknowledged the consultation requirements for the EIR and that BHPB intends to hold meetings in June 2009, probably on site. David stated that BHPB is on schedule for a March release of the 2008 WEMP and PDC reports. The 2008 AEMP report should be ready at the end of March, and that some reports have already been completed in draft form by Rescan but require BHPB review. Tim suggested that the AEMP and WEMP will play a big part in the EIR and should therefore be done first. David committed to check on a possible release date for the 2008 air quality monitoring report.

David said that BHPB is prepared to proceed with the wolverine DNA sampling programs in 2009 but it may not go ahead as Diavik and DeBeers have not committed.

Tim asked whether Beartooth Pit will be used for water storage in the medium term, and will it be used for monitoring water quality. Helen responded that BHPB might move water from Bearthtooth to Panda pit or may leave it in Beartooth pit and cap it with fresh water, but there was no intention of monitoring it or conducting closure related research. Helen further advised that they may use a flooded Beartooth pit for testing of new mining

techniques for application at Misery Pit. Tim suggested that the flooding of Beartooth pit might be an opportunity for studying meromixis, Helen agreed.

David thanked the Agency for the letter regarding the wildlife monitoring. He and Andrew Nichols have been working with Diavik on bringing the aerial caribou surveys together again. He has also been dealing with the other mines on coordinating other aspects of wildlife monitoring.

David mentioned that BHPB tries to visit each community once a year to review the results of environmental and socio-economic monitoring and three communities have been visited so far. There are further plans to go to the communities to get a sense of community priorities to renew its support for TK projects. The BHPB Environmental Department will take those proposals to management, and then negotiate projects with communities looking at 3 year projects in conjunction with the communities.

Bill asked whether the TK projects will assist BHPB in directing its environmental management. Helen responded that the TK projects priorities are up to individual communities and may result in work being done in cultural or other areas that does not necessarily support the company's objectives. David also outlined a job-shadowing program where community representatives join in with field crews.

Bill requested an update on Fay Lake spill and its follow-up by the company. David responded that the Environment Department is looking at silt loading and maintaining the silt curtains. David advised that BHPB reseeded, and took water diversion measures on the emergency access road. The company is also examining how to build up the top end of Cell B. One method would be to use run of mine rock which could be completed during the summer of 2009. David commented that BHPB is not using the three northernmost spigots on the west side of Cell B that empty into the LLCF.

Tim commented that in a response table during the ICRP review, BHPB had indicated that there was average of 29 mg/L of hydrocarbons in underground mine water with a maximum reading several times that level. He asked whether this was an anomaly or is that something that we can expect in the future? Tim had raised the issue earlier with Eric Denholm but not had a reply to date. David committed to get an answer for Tim upon receipt of the reference to those figures. Tim subsequently determined that he overlooked a December e-mail in which an answer was indeed sent to him by Eric, and so David didn't need to follow up.

Bill commented that this version of the ICRP is a better document, there are some residual issues, but overall it is much better. Laura questioned what was meant by "hazardous roads" in the Buildings and Infrastructure section 5.1-86, and what sections of road are hazardous to wildlife. Helen replied that if there is a berm that is in place that will prevent animals from accessing hazardous places then the berm will be left in place (e.g. a road beside a pit edge).

Bill wondered whether the Misery waste rock piles and pit might present an opportunity for BHPB to do some closure monitoring and improve the design of some closure measures. Helen stated that there is ongoing activity at Misery, so that the area cannot be used as a study area. She pointed out that BHPB does not wish to encourage wildlife use of the area due to continued activities. Kim questioned whether BHPB will have enough time to incorporate the data from closed rock piles into the closure design and monitoring. Helen responded that the Fox pit will close sooner then Misery and that BHPB will be on site until 2060 doing closure monitoring.

Laura asked whether the discharge criteria for water will be the same as in the water licence now or will it be revised for closure. Helen responded that yes it will be based on those criteria in the closure water licences rather than what is currently in place.

There was some discussion about the need for wildlife use criteria for each mine component rather than a general statement around wildlife use of the claim block. The Agency was unclear as to whether BHPB intends to attract or repel wildlife. BHPB has no intention of encouraging or attracting wildlife, only to make it safe to use if wildlife so choose.

Laura requested to be involved in the information exchange on the pore water study. Helen committed to keep Laura informed.

It was agreed that there was no need to provide a record of the meeting to the WLWB as the Agency will put its concerns with the ICRP in its comment letter and BHPB will then have a chance to respond.

#### REVIEW OF BHPB ICRP

There was a lengthy discussion and teleconference with Tony and Kim. This dealt mostly with how detailed the reclamation research plan ought to be fleshed out, specifically in terms of methods. Some directors believed that knowing what the purposes for the various reclamation research plans was almost good enough. Others wanted enough methodological detail that the WLWB could be assured that the research would answer the necessary questions.

The Directors agreed to include the following points in its comment letter to the WLWB on the Final Interim Closure and Reclamation Plan—Working Draft:

- Overall the Agency acknowledges substantial improvement in the ICRP, including better pre-development and current status satellite imagery;
- Opportunities for improved organization of the ICRP and a better introduction that explains its contents;
- Incompatibility of fish barriers on the pit lakes and exclusion of fish from Cell E, with the overall closure goal for the mine, and that this issue is squarely within the mandate of the WLWB;

- Whether the closure water quality EQCs are what is currently in the main licence or to be developed in the future;
- Early pilot study revegetation research is needed on Cell B;
- There should be component-specific wildlife use objectives and closure criteria;
- Misery temporary closure, Phase I tailings pond and other site features offer opportunities for improved closure design and monitoring;
- The loss of Beartooth pit for closure related monitoring and research should be studied more carefully and explicitly in terms of environmental trade-offs and lost opportunities;
- It is unclear what direction BHPB is going with regard to LLCF revegetation work with regard to wildlife use and the linkages between various parts of this area of research;
- There should be a research program with regard to road closure at the site that removes roads as barriers or filters to wildlife movement;
- An industrial standard for soil remediation related to hydrocarbon contamination is not the preferred measure, more likely the parkland standard; and
- The Reclamation Research Plan and Engineering Studies should be better linked and cross-referenced, with detailed annual reporting to gauge progress and plans for the following year.

The Agency noted a number of minor typographical errors and these will be compiled and sent to BHPB separately.

Action item #8 – Kevin to prepare a draft Agency comment letter on the ICRP to the WLWB, and a letter to BHPB with the minor corrections to the ICRP.

### OTHER BUSINESS

The Directors discussed dates for the next Board Meeting. As agreed previously, the next Board meeting will be on March 31 and April 1-2, 2009. The next Environmental Agreement Implementation Meeting should be scheduled to happen around a May or June Board meeting. It was agreed by the Directors that June 16-18 be set aside for the following Board meeting to allow for review of a draft 2008-9 Agency annual report and a site visit with possible input into BHPB's 2009 Environmental Impact Review.

Action item #9 – Kevin to speak with Eric Denholm to set up an Agency site visit in conjunction with the 16-18<sup>th</sup> of June Board of Directors Meeting.

MEETING ADJOURNED at 12:30 pm

Summary of Discussion Approved by Jaida Ohokannoak, Secretary Treasurer.