

**12<sup>th</sup> Environmental Agreement Implementation Meeting  
Yellowknife, NT  
Summary of Discussion  
February 3, 2012**

*Revised: June 8, 2012*

Participants

Lionel Marcinkoski, Aboriginal Affairs and Northern Development Canada (AANDC)  
Patrick Clancy, Government of Northwest Territories (GNWT)  
Eric Denholm, BHPB  
Bill Ross, Independent Environmental Monitoring Agency (IEMA or the Agency)  
Tim Byers, IEMA  
Kevin O'Reilly, IEMA  
Allison Anderson, IEMA

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*Meeting commenced 9:00 a.m.*

**INTRODUCTIONS AND SELECTION OF CHAIRPERSON**

Round-table introductions were made. Lionel Marcinkoski was selected to serve as the chairperson for the meeting.

**REVIEW AND APPROVAL OF PREVIOUS MINUTES**

Attendees suggested revisions to the draft minutes of the June 17, 2011 meeting earlier by e-mail. Changes were incorporated into the current version prior to this meeting.

**Motion to accept the minutes of June 17, 2011 as written.**

**Moved by Bill Ross. Seconded by Eric Denholm. Carried without objection.**

**REVIEW OF PURPOSE AND AGENDA**

The purpose of the meeting, as set out in the 2006 Resolution Agreement, was reviewed (i.e. to provide participants with an opportunity to discuss IEMA's work plans, budgets, findings and recommendations, and BHPB's programs and projections for the next year).

Eric proposed that the group discuss the purpose of the Environmental Agreement (EA) Implementation Meetings. He asked whether the meeting still fulfills its original purpose or it should be recast to make it more useful. Lionel asked if meeting twice a year is too frequent. Although AANDC and the GNWT get an opportunity to comment, the meetings were set up to move things along, and there have been no big issues amongst the parties. The Northern Major Project Management Office (NMPMO) is supposed to play a coordinating role for larger projects such as Ekati. Bill referred to the mediation report, pointing out that participants wanted to eliminate issues of disagreement and wanted to develop better working relationships. Bill's recollection, consistent with this, is that the driving force behind these meetings was BHPB's desire to engage the two governments more in a continuing discussion. The working relationships between the signatories and IEMA have improved in intervening years, in part because of good will and in part because they meet more consistently. Bill wants to ensure the good relationship continues, however the parties in the room proceed. Tim's recollection of the mediation is that the June EA Implementation Meetings are meant to serve as a formalized process for the three signatories to review and respond to the recommendations outlined in the Agency's Annual Report.

Lionel suggested everyone come up with suggestions for how future meetings might be made more effective and bring these forward at the next meeting. Everyone agreed.

## **IEMA PRESENTATION ON RECOMMENDATIONS AND FINDINGS**

Bill reviewed the Agency's recommendations from the 2010-11 Annual Report and other findings by the Agency (see PowerPoint presentation for details, distributed before the meeting and available from the Agency). Outcomes and the current status of these issues were also discussed. Discussion of these items is reported here starting with the Agency 2010-11 Annual Report recommendations followed by Agency correspondence.

### **Recommendation 1 – Operation of new site incinerator**

Eric said the incinerator has been used, but operating procedures still need to be developed. A stack test will then be performed to verify it is working properly. The incinerator will be considered operational at this point, expected around the end of February or March 2012. It was suggested to BHPB that it work closely with Westland Incinerator, the original manufacturer. The old incinerators will not be decommissioned right away; they will continue to serve in a backup capacity for materials for which the new incinerator cannot be used (e.g. oily rags) and when weather conditions do not allow transport of waste to the new incinerator building. BHPB will prepare an Incineration Management Plan that will reflect Environment Canada's technical guidance document on batch incineration as relevant to Ekati. Eric said he can find out when the plan is expected – the end of May or June 2012 is probably optimistic. BHPB will circulate this document when it is completed.

### **Recommendation 2 – Implementation of grizzly bear monitoring program**

Eric confirmed BHPB has committed to proceeding this year with the regional grizzly monitoring program, analogous to the regional wolverine DNA program. Diavik is onside for a full-scale program, according to John Bartlett, and Snap Lake has been in touch with the GNWT. Snap Lake's participation, it is expected, will be delayed by one year. The year difference works for a study design because the Ekati and Diavik portion of the program is the northern section of the study area, whereas Snap Lake's is the southern section, which is less intensively used by grizzly bears. BHPB will be meeting with John Virgil of Golder Associates soon to discuss the program further. The Agency said there seems to be more progress on the program than initially thought.

### **Recommendation 3 – Review of wildlife monitoring**

Bill expressed the Agency's concern that, whereas the Aquatic Effects Monitoring Program (AEMP) has a regular review, the Wildlife Effects Monitoring Program (WEMP) does not. Eric said that WEMP should be reviewed to ensure that what is being done in the field is current and purposeful. The review cycle may be open to some debate, but BHPB is revising its Wildlife Management Plan, which should be circulated before the end of 2012.

Bill reviewed the Agency's other findings and submissions to date for 2011-12 as well as outcomes.

## **Aquatics**

Bill noted that the Agency's concerns with BHPB's use of the Nitrate Ideal Performance Standard (IPS) will likely be worked out in the details of the water licence renewal.

There was discussion regarding the WLWB's response to the Agency's letter of July 19, 2011 on the Adaptive Management Plan for Ekati. The licence renewal process will encourage discussion of the effluent discharge criteria (EQCs) and how they are protecting the environment, as well as adaptive management.

The Agency said it is and has been generally supportive of the use of Beartooth for processed kimberlite to avoid use of Cell D in the Long Lake Containment Facility (LLCF). Eric said BHPB appreciates this and that BHPB does not mind the Agency's request for additional information on monitoring and management, including the LLCF water model.

## **Closure and Reclamation**

Kevin said he has had contacts from Ryan Fequet (WLWB) asking about the Agency's comments on the Draft Closure and Reclamation Guidelines, so there is some further progress on finalizing this document.

## **Wildlife**

Bill said the Agency expressed support for certain aspects of the revised NWT *Wildlife Act*. Patrick said the GNWT has indicated it will reintroduce a proposed new *Wildlife Act*. He will advise when this will take place.

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## **BHPB's Annual Report**

Eric noted that BHPB sent its response table out by regular mail and that he had just sent it out by e-mail prior to this meeting.

## **Traditional Knowledge**

Various ideas came out of the TK Workshop. BHPB is reviewing these matters.

## **BHPB PRESENTATION ON ENVIRONMENTAL AND OPERATIONS TOPICS 2011**

Eric reviewed current and future operations and projects, permitting, 2012 Environmental Impact Report, and environmental management topics at Ekati for 2012 (see PowerPoint presentation for details, distributed before the meeting and available from the Agency).

### 2012 Operations

The company is currently mining in Koala, Koala North and Fox, and pre-stripping for Misery open pit expansion began in late 2011. There is two to two and a half years of waste removal to be done. The Misery camp is almost ready.

Eric discussed the construction of the fine processed kimberlite (FPK) pipeline to **Beartooth Pit**, which should start operating this summer. He explained it will have slightly different design specifications than the LLCF pipelines, and velocities and pressures will be developed to ensure that the processed kimberlite flows properly. BHPB wants a good settlement of solids and clarification of the water above the tailings. The operating plan is currently based on one-third of the processed kimberlite directed to Beartooth and two-thirds to the LLCF; this will be optimized

based on operating experience once deposition to Beartooth Pit is underway. The plan is to pump water out of Beartooth to the LLCF when it reaches a practical pumping elevation (at least a year or so), in order to manage the water level. The water might not go directly back to the Beartooth Pit, but it may go, for example, through the processing plant to the LLCF, just as the water recovered from the LLCF does now. Eric said the best approach is to keep the deposition under water. He does not know how far the pipe will go down into the pit. The pit will not be filled with FPK solids more than 30 m from the top. The WLWB has asked BHPB for more information for the July 1 revision to the WPKMP. Eric said the updated WPKMP will provide a better picture of the operating and waste management plan. Bill responded that the Agency feels there is, on the balance, a clear benefit to using old pits for processed kimberlite storage, especially if the mine life is extended with new pipes.

Eric gave an update on Phase 1 of the **Pigeon Stream Diversion**. BHPB will meet with Bruce Hanna (DFO) to discuss financial security under DFO's authorization for the work, and other items. Eric said the language in the water licence was not clear on when water licence financial security would be required for work or production at Pigeon. In any event, the company has now provided the necessary letter of credit. Final design of the Pigeon Pit is still in progress.

BHPB is in Phase 2 of the rehabilitation of rock walls at the **Panda Diversion Channel (PDC)**. If BHPB runs into a crunch, because the Misery pre-stripping is underway and the PDC requires the same equipment, it might do one half of the canyon section this winter and delay the other half to next winter. This may cost more money, but BHPB will make that call once it nears completion of the north side. The plan is to try to build up a thick ice pad in the bottom first, and then it will be ready to start work on the wall.

Other 2012 projects are the **construction of Dyke C Raise** and completion of the incinerator start-up and initiation of routine operations.

#### Permitting

The Agency reported that it had heard AANDC inspector Jason Brennan is back on BHPB's file (Tracey Covey had been filling in).

Eric discussed the **2013 Water Licence Renewal**. BHPB has begun some community consultations. The trip to Kugluktuk has been rescheduled due to poor weather, and a visit to Lutsel K'e is to take place soon. The MVLWB hired consultants to review the aquatic monitoring results and EQCs (effluent quality criteria) for the Snap Lake mine water licence renewal under the WLWB's new effluent and water quality management policy, but BHPB prefers to do the review itself. BHPB will provide a draft renewal licence; Eric does not expect many changes. Bill wondered how the transition from operations to closure will be dealt with in a water licence. Eric said that BHPB is likely to say in its renewal application that the company does not want to limit or complicate the end-of-mining stage, as BHPB does not know when the mine will close. The company will likely propose a licence term beyond the current anticipated closure date. BHPB does not expect that it will take until August 2013 to complete the renewal application.

#### 2012 Environmental Monitoring Programs and Reporting

Eric said BHPB's 2011-12 Annual Report will be separate from its 2012 EIR, as discussed with the Agency and other parties at a meeting on this topic in December 2011. BHPB contemplated combining the reports, but others want separate reports. BHPB needs extra time to put together a good EIR that makes use of the Annual Report monitoring information. BHPB wants to get the report to the WLWB as soon as it can, however, and the Agency would appreciate seeing BHPB's 2011-12 Annual Report in advance to assist IEMA with the preparation of its own 2011-12 Annual Report. AANDC may have to set two different review periods and processes for each of the Annual Report and EIR.

**Management Plans** include updates to the Waste Rock and Ore Storage Management Plan (WROMP) and Wastewater and Processed Kimberlite Management Plan (WPKMP). The WROMP, a lower priority, was submitted to the WLWB in 2011. The WLWB will circulate it.

**Monitoring Programs** include the 2011 Monitoring reports, AEMP, WEMP and AQMP. Eric discussed the AEMP's 2012 fish sampling program. BHPB wanted to get away from taking so many trout from the lakes. Development by BHPB of the 3-year AEMP review will likely start in April 2012. Eric said the updated Wildlife Management Plan is in the works, but there is no set date for circulation. The annual Wildlife Research Permit application date has been pushed back to July 15. The Wek'eezhii Renewable Resources Board told BHPB the research application should follow the release of the WEMP so the application review benefits from the most recent monitoring information. Eric said the motion-activated cameras around the mine site are working out well. Bill asked whether there has been any success in getting behavioural response information, referencing Anne Gunn's earlier suggestions on the use of cameras. Eric thinks the cameras are providing good technical data, which will be reported in the WEMP. Eric noted that 2012 is an interim year for the AQMP – 2011 was one of the 3-year cycles where vegetation and dust monitoring took place.

**Traditional Knowledge** initiatives are underway on site-based and community-based projects, as is initial planning for a TK advisory working group on closure and reclamation. The original focus was to be Ekati, but it may be expanded to include Diavik. Eric confirmed for the Agency that Harry Apples will be invited and is anticipated to be attending the site visit during freshet. Last year, the focus of site-based projects was on wildlife but this year it will be more on fish and water quality. Eric told the group that the Yellowknives Dene First Nation TK project is in the works, but not yet started. The next step on the KIA/Kugluktuk NTKP database is to take the information compiled and format it for public distribution, such as a 50-page summary in community accessible language or a web-based presentation intended for schools. Tim asked if this publication will be open to everyone. Eric said that would be up to KIA to determine.

**Closure and Reclamation** initiatives discussed were the new reclamation engineer hired by BHPB, reclamation research and engineering studies, the Annual Reclamation Update Report, LLCF Reclamation Research Pilot Study and reclamation financial security.

The new reclamation engineer, Lukas Novy, will be based in Yellowknife. His role is planning and research. BHPB is working on a pit lake water quality report which should be available in June or July 2012.

Bill asked if there is anything the Agency can do to help with reclamation planning, thinking of the March 2011 meeting with the company, where it was agreed we should work together. Eric does not know how much BHPB should or could use IEMA directors' technical expertise. Eric said he thinks some things can be discussed on an informal process, such as for the preliminary sharing of ideas. However, if BHPB has conclusions or findings, it wants to be careful about asking only one group to comment. Kevin suggested the Agency invite Helen Butler and Lukas Novy to its Board of Directors meeting in March.

Data collection for the LLCF Revegetation Pilot Study will be done by Harvey Martens using some transects across Cell B to take samples for salt content, grain size and other parameters. EBA Engineering will do some surface sampling for trafficability during the winter of 2012-13. Lionel asked if pore water testing will be done. Eric said it may be done next winter. The design for the pilot study is expected a year from now, and it will be circulated to the WLWB for discussion at that time. The company and its consultants have to work out when vegetation should be done (perhaps in the summer of 2013) versus rock placement (perhaps in the winter). Eric advised that Harvey may retire soon, but he is staying on with Ekati for a while. Keith McLean is moving to Ekati's Project Engineering Group, but should continue to be copied on correspondence until further notice.

Eric met with AANDC and WLWB staff on reclamation financial security. It was agreed the WLWB will have a work plan with a timeline for BHPB to do an updated security estimate. The work plan is expected in the next 2-3 weeks. Lionel said the new RECLAIM model has been sent by e-mail to BHPB. Although BHPB sometimes takes issue with the numbers put into the model, Eric said BHPB will work on developing a global all-in liability estimate. The WLWB will review that figure and then look at what instruments may be used to hold the security. AANDC has not yet decided if it will develop its own liability estimate or review what BHPB prepares. Lionel said AANDC has contacted John Brodie to assist.

Eric said the Environmental Agreement requirements will be met and that the Agency and GNWT will need to be involved. The Agency met with Mark Cliffe-Phillips (WLWB), who said that AANDC and BHPB were going to work together. Bill said he thought there would be a preliminary discussion about unit costs. Eric said this must be put into the work plan, agreeing it would be useful to have one or more interim steps/intermediary meetings before the final figure is presented. Eric described it as working towards a coordinated liability estimate. Both Robert Jenkins and Mark Cliffe-Phillips told Eric they recently finished up a similar process with Diavik, where they brought together two estimates that were closer together than initially.

BHPB prefers a collaborative approach, but it also wants to be able to pinpoint where there may be any differences. Bill asked if BHPB will be using the Monte Carlo model. Eric replied it will not because the company views this as an update to current information, not a ground-up development of a reclamation liability. Bill relayed his understanding of what Mark said, that, in order to make an adjustment to the security, they need to do a new analysis of what the new security ought to be and to add or subtract as appropriate – WLWB is not interested in tweaking a minor percentage of the value, but to set a threshold for doing a new estimate so that the cost of the review does not exceed the value of any increased or returned security. BHPB does not envision going through a re-negotiation process every time it expects a return of some security.

Bill wanted to know how the Environmental Agreement will be implemented before submissions to the WLWB in August and how the Agency will be consulted. Eric does not know, but thought that there are two steps involved: (1) total security amount; and (2) which instruments provide that security. Eric said that the GNWT and the Agency should be involved in the second stream. Bill said the Agency has no position so far, but the Agency will likely support the approach of figuring out total closure liability. However, the Agency wants to know how it can play its proper role and meet its responsibilities. The Agency wants to be properly consulted between now and August so it can report to its society members as things unfold.

Bill also suggested that the comment table approach used by the WLWB to review management plans might be an appropriate way to review liability estimates. Eric said BHPB would not take issue with that approach, but WLWB is developing its own approach. Kevin said that WLWB indicated to the Agency that BHPB's proposal would not be forthcoming until August. In the interim, it was between AANDC and BHPB to develop a work plan, not the WLWB. The WLWB appears to be of the view that between now and August, AANDC and BHPB will engage the Agency in some way to help meet the Environmental Agreement obligations.

Eric said BHPB wants to change the adversarial way security estimates have been set in the past. The company understands that AANDC has to protect the public from having any liability. Bill said the extent to which BHPB and WLWB can share information will expedite the process. He believes this is understood on both sides. The Agency would like to be kept in the loop to fulfill its mandate.

Eric asked whether the GNWT has had internal discussions about its role in the reclamation liability and financial security process. Patrick said he will talk to Gavin More (GNWT) about it. The GNWT will want to be part of the process, but he cannot give details about what the GNWT expects at this point. Kevin returned to the two streams discussed earlier, citing the Environmental Agreement that requires consultation with the Agency in not just deciding on which

instruments might be used for the security, but about adequacy of the security itself. He said it may be productive to have a meeting with all parties to discuss this further – i.e. how to approach the global security figure and how the parties may be involved. There was no response to this suggestion. [This meeting, attended by BHPB, the Agency, AANDC and GNWT, took place on January 26, 2012.]

## **IEMA PRESENTATION ON WORK PLANS AND BUDGETS**

Bill reviewed the Agency's current and proposed work plans and budgets for 2011-12 and 2012-13 (see PowerPoint presentation for details, distributed before the meeting and available from the Agency).

### **DISCUSSION**

At the next meeting, participants will discuss possibilities for future EA Implementation Meetings.

Lionel said AANDC has put out a request for consultants to look at EQCs as part of the water licence renewal.

Lorraine Seale proposed additions to the June 17, 2011 meeting minutes regarding the acceptance of documents on a confidential basis (see her e-mail of January 25, 2012 for details, distributed before the meeting and available from the Agency). Eric said the documents referred to (air dispersion modeling inputs) are not confidential, but simply contain a level of data that will not likely be of any relevance to anyone, except the modellers themselves.

Any suggestions for changes to the summary should be sent to the Agency. Formal approval of the summary will take place at the next EA Implementation Meeting. Eric asked if the meeting can be scheduled between the Agency's Annual Report writing workshop in May and publication of the Agency's Annual Report so the meeting can be used to further discuss any proposed recommendations from the Agency. Kevin said the Agency usually decides on its recommendations at the May meeting, so an Implementation Meeting in June would work.

The Agency suggested that it would like another site visit soon. Eric agreed.

## **DATE OF NEXT MEETING**

The date for the next meeting will be in May or June 2012. To be set at a later date.

*Meeting concluded 12:00 p.m.*