

**Independent Environmental Monitoring Agency
20th Meeting of the Board of Directors
Yellowknife, Northwest Territories
September 16th – 17th, 2000**

Summary of Discussion

Directors

Red Pedersen	Tony Pearse
Peter McCart	François Messier

By Conference Call

Bill Ross	Marc Stevenson
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Staff

Zabey Nevitt

Saturday September 16th, 2000

Introduction of new staff, directors and review agenda

Meeting called to order by Chair.

Introduction of the new Manager.

General Discussion was made by the directors on the appointment of a new director by the North Slave Metis Alliance, and the status of the appointment of a director by the Akaitcho Treaty 8.

Comments on minutes and format.

Information Updates

Chair: Is continuing to examine possibility of relocating for portion of year to Yellowknife, to make himself available for 100 days/year to the Agency.

Met with the Kitikmeot Inuit Association Board of Directors.

Francois: Involved in interview process for new Manager.
Provided comments for the Agency's submission regarding the BHP expansion.
Has continued to work with the Manager on finances.

Tony: Attended meeting at the BHP mine site regarding the on-land water disposal proposed for Fox pipe development; (update later in meeting).

Reviewed documents, including; Tailings Management Plan, BHP Expansion EAR.
Involved in interview process for new Communications Officer.

Pete: Provided comments for Agency's submission regarding BHP Expansion.

Business arising from last meeting

Directors reviewed action items.

DFO charges; staff and directors to continue to gain information as it becomes available.

Seepage Meeting is currently recorded on tape. This needs to be transcribed in summary form. Directors agreed to one day's work for Tony.

Action Item #1

Tony to spend one (1) day summarizing seepage survey meeting

Tracking System was begun by the previous manager, and the directors suggested that it is an important initiative to prevent requirements from "slipping through the cracks". Directors suggested that the Agency should work on its own system, with the possibility of opening up to other bodies after completion and refinement.

Action Item #2

Manager to continue to develop tracking system, started by the previous manager for review by the directors at the next meeting.

Marc Stevenson joined meeting by conference call: 9:30am

Introduction of the directors and staff to new director.

New director introduced himself; will be in Yellowknife on Monday to Wednesday and will drop by the Agency to introduce himself in person to the staff.

Agenda reviewed.

Marc indicated he will rejoin the meeting at 4:30pm.

Treasurer's presentation

As of mid-September approximately 45% of budget used.

Explained how funding is kept in a redeemable GIC; and operating funds transferred to the main account each month.

Signing authority will be the executive of the board plus the manager.

The manager is exploring the option of Internet banking to allow easy access to account information.

Staffing – Communications/Administrative Assistant

Recommendation made by interviewers on the best candidate for the position. Discussion of current staffing regime, and possibilities for change in the next fiscal year.

Discussion of Chairs relocation to Yellowknife for up to 100 days/year, to work with the manager on communications with the members.

Discussion on salary for new Communications/Administrative Assistant.

Action Item #3

Make offer to candidate for Communications/Administrative Assistant

Discussions on budget negotiations with BHP; current process, treasurer's role, possibility of adjudicator, informal meetings between Chair and BHP.

Manager raised certain issues with regards to his contract; vision is not currently covered under the available benefits package; directors agreed to make available (paid by the Agency directly), the same benefits as available to GNWT employees (in Managerial positions) for vision.

Ekati Monitor

Directors discussed email from Tina Markovich regarding "errors" in latest edition of the Agency's newsletter. Directors highlighted importance of reviewing all figures and facts very carefully; senior staff should prepare Monitor.

Action Item #4

- Email Tina Markovich thanking her for her comments, and these have been brought to the attention of the Directors.
- Place an errata box in next edition of the newsletter.

Cumulative Effects and Assessment Management Framework

This program, being coordinated by DIAND, is currently being developed in an attempt to develop a cumulative effects management and monitoring framework for the Mackenzie Valley, a number of different parties are currently involved in a working group who are attempting to produce a management framework by March 2001.

Directors felt the Agency does not currently have the mandate to be a part of the working group, however should be reviewing all information and keeping an active file on the initiative.

Action Item #5

Ensure current file is kept on the Cumulative Effects Assessment and Management Framework and directors are advised of all new material received.

The directors discussed the current role of the agency and its relationship to initiatives such as CEAMF, and new structures established under the DIAVIK environmental agreement.

There was discussion focused on current and future mining projects. With the possibility of many open pit operations over the next several decades a strong cumulative effects monitoring agency(s) will be required. The potential for separate monitoring boards for wildlife, water and socio-economic issues was discussed. The importance of maintaining independence as a fundamental principle for the watchdog role was discussed.

Action Item #6

Each director to write down and forward to the Manager their thoughts on the future of the Agency with regards to other initiatives, such as CEAMF and the “DIAVIK monitoring agency”

There was brief discussion on possible funding regimes for such a body i.e. the “Monitoring Fee”.

Operating Environmental Management Plan

BHP’s new Operating Environmental Management Plan (OEMP) was brought to the attention of the directors, and the task of reviewing it was divided among the directors.

Action Item #7

Directors to spend time¹ reviewing various sections of the OEMP; possibility of contracting portions to outside experts; if required.

Action Item #8

Manager to contact DIAND to establish how they will be dealing with comments on the OEMP, and their interpretation of BHP’s responsibility to address any concerns.

Cost Variance Report Update

Update given to directors, including two (2) letters; from DIAND to BHP and BHP to DIAND. It was agreed by the directors that no action by the Agency is required right now, but the Agency should maintain a watching brief on any action taken by DIAND or BHP.

Seepage Reports

General discussion on seepage survey reports acquired from the MVLWB. The directors raised a number of issues. It was noted that water quality at station 022 is anomalous and worrisome. This should be noted for possible review by Kevin Morin. How representative is the value obtained, and what are the implications for the new pipes?

¹ Tony Pearce: to review Tailings Management Plan; Waste Rock Management Plan and Abandonment and Restoration Plan.

Francois Messier: to review Wildlife Effects Management Plan

Peter McCart: to review Aquatic Effects Management Plan

Other issues raised by the directors includes:

- the rationale behind the toxicity testing;
- the rationale behind survey locations
- the locations of all the samples not identified;
- an explanation of the conductivity and pH values for station #022 which differ over two sampling dates.

The directors decided to review the Fall Seep Survey document (yet to be produced) before determining any further steps.

General discussion by directors on copper levels at the outlet of Long Lake, and survey timing; winter vs. summer. The rising levels of copper under winter conditions was noted, pointing out that BHP is not carrying out winter surveys as part of the AEMP. (Time when copper levels are most likely at their greatest.)

The importance of looking at trends was identified. BHP's analysis does not do this. It was agreed that it would be valuable for the Agency to examine the trends revealed by BHP's water quality data.

Parameters of concern include total nitrogen, ammonia, copper, aluminum.

Concern was expressed over BHP's use of threshold levels as detection limits, and generally inconsistent detection limits; since this prevents the ability to detect trends where increasing concentrations are below threshold limits.

There was discussion on spring 2000 snow-core data, which are still not available from BHP. The Agency has concerns over increasing metals due to dust from pits and the Panda Diversion Channel.

There was discussion on the condition of dike B, and DIAND's inspection report noting that tailings apparently have leaked through; and that water can be heard passing through a portion of the dam. This issue is to be clarified with BHP at tomorrow's meeting.

Fox Pipe Amendment

Tony submitted a written report to the Agency, and updated the directors on his August 3rd site visit to the mine site to discuss BHP's Fox pit land treatment proposal. The highlights of the situation are as follows:

- BHP has hired a specialist (Andre Sobolewski of Microbial Technologies) in wetlands treatment processes to assist the company in designing a workable scheme for discharging Fox pipe wastewater on land;
- Sobolewski has conducted preliminary field work at the site and has determined that the project is technically feasible and should work. His preliminary design modifies BHP's earlier "over-land" discharge to a "mixed" concept that would involve a submerged environment to remove metals and restore water quality;
- Sobolewski is preparing a final report on design feasibility, and BHP will be forwarding this report when available to the Mackenzie Valley Land & Water Board (MVLWB) as part of its application.

- Their was general agreement by regulatory officials present that this latest work was extremely helpful in understanding BHP's proposal and advanced the merit of the proposal considerably.

Directors would like further information on the status of the proposal.

Action Item #9

Manager to discuss with the MVLWB whether the operational phase of the Fox proposal will be covered as part of the potential amendment to the Class A water license and at what point an amendment would trigger the requirement for a new license.

Beartooth, Pigeon & Sable Pipes Environmental Assessment

There was discussion on the Mackenzie Valley Environmental Impact Review Board's (MVEIRB) upcoming public meeting on BHP's environmental assessment of 3 new proposed pipes. The Agency has submitted comments on its review of the proponent's Environmental Assessment Report to the MVEIRB, and these are now on the public registry.

The directors agreed that the Agency should make a presentation to the public meeting based on its written submission to the Impact Review Board. The Manager was delegated to make the presentation in lieu of the directors who are unable to attend. Direction was given to the Manager that he could respond to technical questions at the public meeting with written followup responses if necessary.

Decision to further discuss the issue when other directors are available by conference call.

Budget Negotiation Planning

Budget negotiations with BHP were discussed. It was agreed that the Chair would meet with Scott Williams for the purpose of making a proposal for an improved process. Also discussed was the need to move the office.

Action Item # 10

Manager to set up informal meeting between Chair and Scott Williams, BHP to discuss budget negotiations, office space, and the proposal for the Chair to spend more time in Yellowknife.

Follow-up from Macleod Evaluation and Members Feedback

The directors agreed that the recommendations made in the evaluation would be reviewed by the Agency and incorporated where relevant into next year's work-plan. Further discussion to take place at the next meeting.

Bill Ross and Marc Stevenson joined by Conference call at 4:30pm

Discussion of date for next meeting: November 10th – 12th, 2000.

Bill and Marc were updated on events and decisions in meeting to date; agreed to all action items.

Review of Agency's position at the public meeting on September 26th, 2000 re: BHP expansion.

Review of letter to BHP re: traditional knowledge and caribou monitoring; approved. Key recommendations in this letter supported the concerns of Lutsel K'e elders that:

- The site visit should take place during the fall migration;
- The visit should take place over a three to four day period, ideally one week; not just one day;
- The elders would like to see for themselves if the caribou are able to cross the Misery road;
- The elders would like to see their observations and recommendations documented and used by BHP.

Discussion on BHP's February environmental effects monitoring workshops; directors agreed on the following recommendations:

1. Results need to be released in good time to allow review BEFORE the workshops
2. At least three (3) days should be required
3. Reclamation should be included on the agenda for the workshops

Action Item # 11

Prepare a letter for BHP highlighting the recommendations of the directors on next years monitoring workshops.

Meeting Adjourned for the day

Sunday September 17th, 2000

Meeting called to order 8:30am

Office Location Update

General concerns over office space suitability raised by the directors; of main concern is the lack of visibility of the Agency due to its location (in the basement). Alternative space available in the building outlined, and directors indicated preference to ground or second floor space. (See action item #10).

Short discussion of current situation with the " Aboriginal Monitoring Group". It was agreed no action was required at this time by the Agency.

Meeting with BHP (John Witteman, Chris Hanks, Tina Markovich, Derek Chubb)

John Witteman made a presentation to the directors on the following topics:

Reclamation Cost Variance Report

- The report is required to be submitted within two years following the start of “commercial production”, a term defined in the Agreement, but interpretation is currently being discussed by the two parties. DIAND is reviewing this issue at the present time. In the meantime, BHP is preparing a letter on the matter and will be sending this to the signatories of the Agreement and the Agency for their review.
- The consideration of environmental risk will be a component of this report. DIAND has been developing models for cost estimation. BHP’s Abandonment & Restoration Plan has not changed, and will not change until demonstrable results are in from the reclamation research program being conducted. This includes the experiments with re-vegetating tailings.

Lakebed Sediment Stockpiles

- The practice has been to store lake-bottom sediments separately from other waste rock in case they may be useful for revegetation, although John is not sure whether this will prove viable. The Koala pipe lake sediments, however, have a 53 million year clay layer that may be prove useful for this purpose. BHP will conduct geochemical testwork on materials that are to be used for reclamation purposes.

Revegetation projects

- Janet Kidd is continuing with revegetation test work on kimberlite fine tailings.

Graduate Student research,

- There are currently 5 graduate students involved in research at Ekati. Professor Heather Jamieson at Queens University has a graduate student doing geochemical and petrographic research on kimberlites. A University of Alberta student (Nick Jones) is conducting research on grayling use in the Panda Diversion Channel under a joint BHP-NSERC funded project.

Action Item #12

Follow-up on BHP’s commitment to provide updates on the work of the graduate students work on grayling habitat studies

Current mining activities

- Koala North pipe is being stripped and bulk sampled at the current time.
- the main Koala pipe is being stripped and blasted.
- the road to Misery was completed about 2 weeks ago, stripping of the pipe has been completed and blasting has started. BHP will install a water treatment plant this fall to handle Misery sump water discharge.
- caribou numbers at the site have been very low this summer and fall.

King Pond proposal

- The company plans to use land treatment for King Pond discharge;

Definition of fisheries

- the company's proposed fish habitat compensation plan (Dillon report) for the Misery site has been submitted to DFO who considers it confidential. John stated that BHP would have no objection to DFO making it available to the Agency.

DFO Charges

- the preliminary hearings on BHP's charges under the Fisheries Act are to be heard in December.

Year 2001's environmental monitoring workshops

- there was discussion on the need to have all material for the workshops distributed with enough time to review before attending the meetings. John stated that he hoped to have the Year 2000 reports out in January.
- BHP would like to restrict the duration of the workshops to 2 days. The Agency expressed its view that at least 3 days were necessary, and ideally 4 days.
- The Agency expressed concern about delays in issuance of workshop notes following the workshops, and John agreed that he would try to improve this. John also agreed that he would try and circulate BHP's proposed changes to the monitoring programs, if any, ahead of the workshops so that participants could study them.
- Pete McCart noted that BHP had not conducted any comparative studies regarding lost fish habitat in the Panda Diversion Channel. No baseline data were collected for this purpose. All we currently have to rely on is studies that tell us how the compensation program is being carried and with what success. Yet it is impossible to compare this with pre-disturbance conditions. This is an important element to the habitat studies that is missing. The Agency recommended to John that perhaps BHP could put some material together on this issue for the aquatic effects workshop, and set aside ½ day to discuss fish habitat matters.

Snow-chemistry data

- BHP is having difficulty sampling the freshets, and is planning a large snow survey this coming winter.
- The year 2000 spring snow survey results have been "archived", and the results will be included in future years' reports.

Enhanced Seepage Survey.

- it was very dry this summer; July sampling was mostly stagnant pools
- thermistors have been installed in the waste rock dumps, and temperature data are being collected at 2 m intervals. Preliminary results indicate that the dumps are "fully frozen".
- the Misery schist waste rock will be incorporated into the centre of the Misery dump, and it is expected that this will be fully frozen.

Blasting and road construction impacts.

- Pete McCart noted that increased dust will change the snow course and water quality monitoring results, and that BHP needs to change its method of presenting data to better demonstrate the trends that may be emerging.

Tina Markovich provided an update on the environmental assessment of the expansion. BHP is preparing for the MVEIRB public meeting on the expansion. The KIA submission is a substantive one that will require a considered response from BHP.

Copy of Agency's submission presented to BHP.

John Witteman:

Tailings Characterisation study.

- the tailings characterization study was underway but that not much was being done. He stated that a report will be issued when the work is completed.

Derek Chubb provided an update on waste management issues

Cell B Intermediate Dam Leakage.

- In response to a question concerning the Inspector's report on high water flow rates through the cell B dike, John stated that the problem was located in one area of the dike underlain by a fault. It was the fault in the bedrock, not the dike that was a problem. BHP proposes to locate the tailings discharge line at the upstream face of the dike and add fine tailings to the existing filter blanket as a way of sealing off the flow.

Chris Hanks provided an update on traditional knowledge studies.

- The Dogrib Treaty 11 had submitted a report on their Traditional Knowledge research.
- Vivian Bianci has been working with KIA to refine their GIS-based traditional knowledge information data base.

General discussion on the Bathurst Caribou herd, and monitoring, also the potential effects on the Grizzly bear population of a safety kill at an outfitting camp.

Copy of Agency's letter in follow up to Fikerets meeting with Lutsel'ke presented to BHP.

The meeting with BHP was adjourned.

Communications – Website, Newsletter.

Discussion on the need to update the website. Directors expressed a desire to include more information on the website. It had been previously agreed to by the directors that approved minutes should be on the site. It was generally agreed that key substantive correspondence, and an annotated document list, should also be included.

Action Item #13

The Agency to contract Tamarack to update the website; Agency staff to receive training to enable regular updating (at least two (2) times per month).

Staff will also provide options for updating the website to increase the usefulness of the service to all browsers.

There was discussion on the next newsletter; improvements in accuracy are required, and relevant and up-to date information is required. The next newsletter should include a summary and recommendations of our annual report. The frequency of these newsletters should be determined by when the Agency has information to distribute.

Administrative Issues – Signing Authority

Directors agreed to add the Manager as a signing authority for the Agency.

Meeting Adjourned

Next Meeting November 10th – 12th, 2000

Approved by:

Red Pedersen. Chair