

***August EMAB Teleconference  
August 28, 2003***

**Present at EMAB Boardroom in Yellowknife**

Bob Turner, Chair, North Slave Métis Alliance  
Doug Doan, Secretary-Treasurer, Government of the NWT  
Lawrence Goulet, Yellowknives Dene First Nation  
Erik Madsen, Diavik Diamond Mines Inc.  
John McCullum, EMAB Executive Director

**Guests**

Wayne Bryant, Komex International

**Present via telephone**

Floyd Adlem, Vice-Chair, Government of Canada  
Doug Crossley, Kitikmeot Inuit Association  
John Morrison, Government of Nunavut  
Florence Catholique, Lutsel K'e Dene First Nation

**Guests**

Peter McCart, Aquatic Environments Limited  
Wanda Goulden, Komex International  
Vicki McCulloch, Terriplan

**Missing**

Johnny Weyallon, Dogrib Treaty 11 Council

**Minute Taker**

Erica Janes, GeoNorth Limited

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*Welcome from Chair – 1:05 pm.*

Lawrence Goulet gave the opening prayer.

**Approval of Agenda**

Bob Turner reviewed the Agenda for those present. No amendments or additions were made.

**Motion # 01-03-08-28**

*Accept Agenda as presented.*

*Moved:* Doug Doan

*Seconded:* Doug Crossley

*Carried:* Unanimously

## **Status of Water Quality Workshop**

### **Recording of Telephone Resolution in minutes**

John McCullum reviewed the previously-discussed telephone resolution concerning the water quality workshop. He had circulated the telephone resolution to all Board members, and 7 of 9 Board members voted in favour of the resolution. John was unable to contact Lawrence or Johnny on this matter. The resolution was still passed, as 7 of 9 forms the required quorum.

### **Update from Vicki McCulloch**

Vicki McCulloch then gave an update on the development of the workshop agenda. She stated that she has been working with Wanda Goulden, Gord MacDonald of DDMI, and John McCullum to develop the approach for the workshop, as well as its purpose and objectives. These have been distributed to Board members. She briefly reviewed the purpose of the workshop, which is to enhance the Board's understanding of water quality issues, as related to DDMI. The workshop will start with general information, and be progressively more focused on Diavik operations. The four key areas of interest to be addressed at the workshop are:

- Community concerns and observations;
- Overview of general water quality and monitoring concepts;
- Diamond mines and water quality issues
  - The regulatory perspective, as provided by Julian Kanigan and Bart Blais of DIAND
  - Discussion of diamond mining and water quality effects
  - Coppermine River monitoring activities
- DDMI and water quality
  - Diavik's approach to water quality management
  - Diavik's water quality monitoring program, and its results to date

The workshop will also look at next steps for EMAB. Gord MacDonald will be providing information on behalf of DDMI, Wanda Goulden from Komex will be assisting with more general concepts, and DIAND representatives will be providing their own perspective. Vicki stated that participant observations, questions, and discussion will be welcomed, to make sure that the Board is in a more well-informed position to comment on water quality issues.

It was suggested that the Kugluktuk/Coppermine Hunters and Trappers Organization be provided an opportunity to speak about their water quality monitoring program, including their goals, and the importance of the river to their community and lifestyle. It was agreed that this is an excellent idea, and would tie in well with feedback from some of the resource people present. It has, in fact, already been discussed. Peter Taptuna from Kugluktuk was suggested as a possible presenter.

**Action Item:** John McCullum will follow up on the plan to have a representative from the Kugluktuk/Coppermine HTO present their water quality issues and actions at the water quality workshop in September.

Vicki confirmed that there will be a report from the workshop, available to Board members who will not be able to attend. There was some discussion about toxicity testing as a topic to be covered during the workshop. One Board member suggested that the agenda items be prioritized in case there is a shortage of time. Vicki agreed to do this, and told the Board that she would welcome any further comments from the Board on the agenda.

### **Public Meeting**

A public meeting is planned for the Wednesday afternoon of the water quality workshop in Kugluktuk. John McCullum reviewed the potential meeting topics. There will be some discussion of ammonia issues during the day, which will be followed by a plain language presentation that evening. EMAB will also be generally introduced at the meeting.

Bob Turner stated that he would like to make copies of the powerpoint presentation slides from the Lutsel K'e meeting, and make them available at the public meeting. He will give a brief explanation of EMAB's role, and there will be discussion about the ammonia issue. The floor will be opened up to questions, concerns and discussion about any and all environmental issues related to Diavik. One Board member suggested that EMAB should also identify why they're in the community; this could also generate some discussion.

There was some discussion about finalizing EMAB's brochure in time to distribute updated copies at the public meeting in Kugluktuk. The Board agreed this would be a good opportunity to use the updated brochure, even if revisions to the map cannot be made in time.

### **Ammonia Issue**

#### **Update on Response to Amendment Request**

John McCullum informed the Board that reports on this issue have been received from both Komex and Peter McCart. MVLWB has extended the comment period on the water license amendment, for EMAB, until next Tuesday. October 9 has been set as the date for the public hearing, so MVLWB will probably be looking for written interventions by late September. EMAB needs to discuss how this process will be dealt with.

#### **Comments from Komex**

Wanda stated that it would be easier to review Komex's report in person, but highlighted the two main issues brought up in it. She stated that Komex professionals in several disciplines reviewed the information provided. They agreed that DDMI's request will result in higher discharges of total ammonia allowed on site: the license amendment is

written so that total ammonia is not regulated, and levels could be quite high. Federal guidelines for ammonia levels are being developed, but aren't yet in place. She stated that measuring un-ionized ammonia sounds like a good idea in theory, but that un-ionized ammonia is hard to measure, because it's not stable in solution. Also, she has seen information that states that water samples with un-ionized ammonia levels below the requirement were in fact toxic to fish. She stated that putting these levels into a water license seems premature.

*Florence Catholique joined the group at 1:35 pm.*

Wanda went on to say that with regards to the 1 mg/L level for un-ionized ammonia, DDMI had presented their calculations, but hadn't examined how ammonia behaves in the natural environment. As far as she could tell, they hadn't looked at the effect of different species of ammonia on the environment, and said she had developed a number of questions for them regarding this matter. Acute lethality testing has also come up as an issue; samples will be taken, and laboratory testing done. However, she is concerned about the stability of the water samples (un-ionized ammonia breaks down in solution).

A Board member suggested that on-site micro-toxicity testing could be done to provide instant results, but no-one knew of this being done. This kind of testing involved subjecting bioluminescent bacteria to water samples, and measuring the decrease in the light they emit because of exposure to toxic effluent. It's unknown whether or not this kind of testing measures ammonia levels, or whether benchmarks have been established. This kind of testing needs equipment and a trained technician to operate it. It was agreed that this topic would be covered at the water quality workshop, possibly taking the form of a recommendation for ammonia testing.

#### **Comments from Peter McCart**

Peter stated that he had looked at similar batch of materials as Wanda. He looked at the information from a life history perspective, and voiced his concern about incubating fish eggs in the vicinity of the ammonia contamination. He stated that the mine area is a traditional spawning area for a number of fish species, including trout, cisco and whitefish. He also stated that review of a study on the effects of ammonia on fish spawning showed that the toxicity for un-ionized ammonia was 10 times greater for larval stages of fish than for eggs or fry. This leads him to concern about fish being about to spawn along the islands and on the face of the dyke. Also, he said he was unsure about studies on the ammonia plume distribution or the dilution factors. Peter also stated that the increase in concentration of un-ionized ammonia will release other compounds into the lake, especially nitrate, which is also toxic to fish. Nitrate gets into the lake after it settles on water or snow from runoff, or in the dust given off by pit blasting. Studies on nitrate need to be done, and nitrite is also an issue that should be studied and addressed. Peter told the Board that BHP is currently concerned about the effects of nitrate on fish spawning, and may have toxicity study results available for review sometime next spring. These tests will be done by extracting lake trout and round whitefish eggs from Counts Lake, and shipping them to Vancouver for lab testing.

One Board member suggested that given the amount of effort that Peter has put into his comments, the Board ought to discuss his concerns at the water quality workshop along with Komex's. It was suggested that each Board member should review the McCart report, which was circulated earlier in the week (minor corrections have since been made). It was confirmed that the consultants' reports will form the basis of the debate and discussions at the water quality workshop. Depending on the outcomes of the upcoming workshop, more may have to be done with the consultants' reports.

Wanda then reviewed the different species of ammonia that are present in the lake and may have an effect on fish populations. Ammonia ( $\text{NH}_3$ ) becomes ammonium ( $\text{NH}_4$ ) when the acidity increases. When the water is oxygenated, it becomes nitrite ( $\text{NO}_2$ ), which is unstable, and changes to nitrate ( $\text{NO}_3$ ), which is more stable. Un-ionized ammonia is the most toxic and least stable species.

John McCullum stated that the Board needed to decide on comments to send to MVLWB by the following Tuesday: should the Komex and McCart reports be attached? He reviewed the upcoming MVLWB process: EMAB comments on the water license amendment application will appear on the public record if received by Tuesday. Submitting an intervention for the public hearing is a separate process, but MVLWB should receive input from EMAB. Decisions about the intervention can wait.

*Wayne Bryant left the group at 2:00 pm.*

It was confirmed that EMAB has not submitted any comments yet. All agreed that the consultants' reports should be submitted, and MVLWB informed that EMAB is retaining experts, holding a workshop, and developing recommendations on the ammonia issue. EMAB needs to be on the record as recognizing this issue, so that it's discussed publicly. The workshop will work to that end, and the agenda should be flexible enough to provide time for significant concerns to be brought up.

The Board confirmed that each consultant worked with the information they had available at the time they wrote their reports, though there is more current information now available from government departments and responses from DDMI. The Board agreed that each expert shouldn't be asked to re-write their reports based on more current information; the Board will review the reports, and submit the concerns to the regulators as soon as possible. There was some discussion and confusion as to whether the letter should be copied to DFO, DIAND and EC, as well as any other Diavik Technical Committee members, and whether MVLWB would be asked to ensure the letter is sent to all members for review.

*Peter McCart, Wanda Goulden and Vicki McCulloch left the call at 2:06 pm.*

The issue of distributing the consultants' reports to non-Board members was discussed. It was agreed that this was acceptable as long as they are public documents, but that if the request comes on behalf of a Party it must come directly from the Party's representative or be authorized by the Party's representative. Ideally the request would come from the

Board member representing the Party, but at a minimum the Board member should be informed.

### **Executive Reports**

#### **Operations Manual**

Floyd Adlem presented the revised Honorarium Policy, which includes committee expenses. Once approved, this Policy will become Appendix A of the Operations Manual. He requested Board approval.

#### **Motion #02-03-08-28**

*Accept the Honorarium Policy as written.*

*Moved:* Floyd Adlem

*Seconded:* Doug Crossley

*Carried:* Unanimously

### **TK Panel: Next Steps**

It was suggested that EMAB request community members to identify people to sit on issue-specific panels to offer views on issues. The two issues at hand are DFO's No Net Loss Policy, and fencing at the mine site. It was suggested that a panel be formed for each issue, but to begin with one panel as a sort of pilot project. Objectives should be identified from the outset, and feedback on progress used in the design of the following panel.

The Board agreed to start with a No Net Loss panel. They also agreed that John McCullum should start developing Terms of Reference for this panel, so that its scope, scale and cost are defined, and all expectations clear from the outset. As soon as the Terms of Reference are approved by the Board, they will pass a motion to have Parties select panel members. This will have budget implications, and so should be reviewed at the next meeting.

<b>Action Item:</b> John McCullum will start developing Terms of Reference for EMAB TK panels.
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### **Brochure Comments**

Florence was updated on the updated EMAB brochure, and the plan to have it ready and available for distribution at the water quality workshop.

### **Annual Report Update**

John McCullum told the Board that he had been in touch with Rosella Stoesz about the Annual Report. It is uncertain as to whether the September 5<sup>th</sup> printing deadline will be met, as small changes to fonts and layout are still being made. However, the report

should only be delayed by a few days; it will still be ready well in advance of the EMAB AGM. The front cover is a caribou image from Diavik, and the back cover is an oblique view of the mine site.

### **Next Meeting**

It was mentioned that the September 24<sup>th</sup> AGM would provide a good opportunity to hold a Board meeting. The Board agreed to hold a meeting on September 23<sup>rd</sup>, continuing on the day of the AGM (which will only take about an hour), and then on the 25<sup>th</sup>, if there is more material to cover.

### **Other Business**

#### **Fall Harvest Funding**

Florence raised the issue of a letter she forwarded to EMAB regarding s. 4.2f of the EA, relating to EMAB making recommendations on access for wildlife harvesting in which a request was made for funding fall wildlife harvesting in Lutsel K'e. The Board had received a copy of the letter in the July meeting kit, but it had been deferred to the September meeting, so was not included in the package for the conference call. Florence indicated she needs a decision soon, before the fall harvest is over. The Board agreed that the meaning of this section is unclear, however it was stated that it was hard to believe that the EA intended EMAB funds to be spent on community hunts. Florence pointed out that the Parties had wanted to make sure that their harvesting capabilities wouldn't be affected by mine activities, and would be financially ensured. She wasn't sure how the Parties wanted to deal with this. It was pointed out that this would be a difficult topic of discussion over the phone, and that Board members would feel more comfortable with discussing it in person at the next meeting. Florence responded that Lutsel K'e is in need of funding for their fall hunt right now, and that she'd sent the letter in the spring, well in advance, hoping the issue could be dealt with in time for the fall harvest.

There was some discussion about EMAB being approached for funding, and how DDMI has referred parties in search of funding to EMAB in the past, although EMAB does not fund this kind of venture. Lutsel K'e has approached Diavik on this issue, but have had no response.

**Action Item:** John McCullum will look into how the Parties can have their harvest funding concerns met, and how this could link to RWED activities. This includes talking with Eric Christensen at Diavik.

#### **Fish Palatability Study**

Erik Madsen gave an update on the Fish Palatability Study, which went reasonably well. He stated that participants were happy with how the study went. DDMI is waiting for data from the electronic sniffer from last year. This data will be combined with this year's, and used to compile a baseline report, to be submitted in November. This report will also include photos from the study, and recommendations from this year and last

year. It was agreed that it would be a good idea for EMAB to have some of the photos in the office.

Lawrence Goulet gave a closing prayer.

**Motion #03-03-08-28**

*Adjourn the teleconference.*

*Moved:* Doug Doan

*Seconded:* Erik Madsen

*Carried:* Unanimously

*The teleconference was adjourned at 2:42 pm.*