

***September EMAB Board Meeting  
September 24, 2003 – Day One  
EMAB Board Room, Yellowknife***

**Present**

Bob Turner, Chair, North Slave Métis Alliance  
Floyd Adlem, Vice-Chair, Government of Canada  
Doug Doan, Secretary-Treasurer, Government of the NWT (afternoon only)  
Doug Crossley, Kitikmeot Inuit Association  
Florence Catholique, Lutsel K'e Dene First Nation  
Johnny Weyallon, Dogrib Treaty 11 Council  
Erik Madsen, Diavik Diamond Mines Inc.  
Angus Martin, Yellowknives Dene First Nation (alternate)

John McCullum, Executive Director

**Absent**

John Morrison, Government of Nunavut

**Guests**

Gord MacDonald, Diavik Diamond Mines, Inc.  
April Desjarlais, Diavik Diamond Mines, Inc.  
Elaine Blais, DFO  
Dave Balint, DFO

**Minute Taker**

Erica Janes, GeoNorth Limited

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*Welcome from the Chair – 10:57am.*

**Approval of Agenda**

Several items were added to the agenda, including:

- Discussion about making comments to RAs and MVLWB concerning the ammonia issue;
- Under executive committee reports, discuss translation fees;
- Under correspondence, discuss draft letter from DIAND on fencing issue;
- Under correspondence, discuss draft letter to MVLWB laying out EMAB's thoughts on their relationship, and related issues;
- Under Outstanding Action Items, discuss website;
- Under other business, speak with Peruvian delegation about environmental assessment process in the North;
- Removal of "Adjourn", except at end of meeting on Friday;
- Under correspondence, discuss process of making recommendations to DDMI about fencing issue;
- Under Gord MacDonald's presentation, add an update about the blasting effects report; and

- Under Outstanding Action Items, discuss board development workshop through the Banff Centre.

**Motion #12-03-09-24**

*Accept agenda as amended*

*Moved:* Doug Crossley

*Seconded:* Floyd Adlem

*Decision:* Carried unanimously

**Approval of minutes from July and August Board meetings**

The Board generally agreed that the established email review process for correcting minutes was satisfactory.

**Motion #13-03-09-24**

*Accept the July 21 and 22 EMAB Meeting Minutes as previously amended.*

*Moved:* Erik Madsen

*Seconded:* Doug Crossley

*Decision:* Carried unanimously

**Motion #14-03-09-24**

*Accept the August 28 EMAB Teleconference Minutes presented.*

*Moved:* Florence Catholique

*Seconded:* Floyd Adlem

*Decision:* Carried unanimously

*Gord MacDonald and April Desjarlais of DDMI arrived at 11:20 am.*

*Erik Madsen left the group at 11:22 am.*

*Elaine Blais and Dave Balint of DFO arrived at 11:35 am.*

**Aquatic Effects Monitoring Program**

Gord MacDonald presented a condensed version of the presentation given to EMAB at the Water Quality Workshop in Kugluktuk. He explained that last year's AEMP was submitted to MVLWB under DDMI's water license and was reviewed in June, and reviewers found an unacceptably high number of mistakes in the data presentation. DDMI was required to fix the errors and to make the raw data itself available online. The report has now been revised, and re-submitted to MVLWB. EMAB has been given a copy of the new report on CD which includes revised figures. DDMI is trying to improve the accuracy of the reporting for the program. Gord gave an overview of the presentation:

- Overview of SNP and AEMP monitoring locations
- Approach to analysis of results
- Summary of 2002 results
- Recommendations and observations

Gord showed a slide of where DDMI monitors water, including surveillance network monitoring locations for:

- surface and groundwater;

- source water quality (DDMI looks for trends in these data);
- final effluent and Lac de Gras (last point of control before water leaves mine property)

He told the Board that DDMI's reporting includes data from all sites. Gord then showed a slide of the AEMP monitoring locations, around the mine footprint. There are stations in a ring around the site, and then along river in direction of flow. He added that BHP also monitors Lac de Gras at Slipper Lake, and this data is incorporated into DDMI's reporting. The sites are sampled twice a year: once at open water (maximum biological activity, plus more wind and mixing of water), and once at late ice cover, when discharged materials don't move around, and any buildup is seen more readily.

Gord then explained the four steps of analysis for the AEMP:

1. Has there been a change? These conditions must be met:
  - 3 consecutive results over baseline
  - trend that would exceed baseline within 3 years
  - this program more is likely to show false positive, so that any problems can be anticipated as early as possible
2. Is DDMI the source? To go on, DDMI must be linked to the source of change.
3. Is the change greater than predicted in the EA? If yes, go on.
4. Is the change likely to cause significant adverse environmental impact?

Gord showed the Board several examples of how this analysis is carried out, using sample data.

- Example 1 showed sampling results with baseline and fluctuating levels at low concentrations, with the conclusion that no change occurred. Gord explained that CCME federal guidelines for the protection of aquatic life are meant to be scientists' best level to protect the environment, but that results are site-specific. DDMI is well below the guidelines naturally.
- Example 2 showed 3 consecutive results above baseline, with the conclusion that change occurred.

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*Break for lunch at noon.*

*Resume at 1:00 pm.*

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*Dave Balint left at noon.*

*Erik Madsen and Doug Doan returned at 1:00 pm.*

DFO questioned Gord about why Diavik uses 3 points over the 75<sup>th</sup> percentile to trigger step two of the AEMP analysis. Gord explained that it's somewhat arbitrary, but captures most of the data and gets rid of outlying data points. Because water quality data is non-parametric, standard deviation cannot be used; this is done more on a statistical basis than a biological one. DFO expressed their concern with this approach, as it would allow species changes with zooplankton to not be registered even if biomass stays constant. Gord replied that this was an understandable concern, but that this type of change isn't likely for zooplankton. Benthic invertebrates would be more likely to show this kind of change, and their community structure is sampled for this kind of change.

Gord confirmed for the Board that DDMI takes two samples per year for each AEMP site and that the 3 consecutive samples that deviate from baseline could be from any timeframe, but only for the AEMP. For other programs closer to site, the sampling frequency is much higher.

DFO expressed another concern about whether the number of samples that DDMI is required to take during the year can pick up changes in water quality. Gord responded that this issue could be dealt with later on in his presentation.

- Example 3 showed a trend above baseline over 3 years, with the conclusion that change occurred. Gord pointed out that regression analysis shows trends over time, and allows change to be predicted. He explained that this is the essence of the monitoring program – DDMI doesn't wait for change to occur, but anticipates it so that action can be taken pre-emptively. Four points are required for the regression analysis.

He then addressed DFO's last concern about the number of samples required to demonstrate change; trends can be demonstrated with the current number of data points. More data points wouldn't help to predict change any better. Although more data points may give more confidence in a trend, this isn't really the goal of monitoring. A few more years of monitoring data will establish further confidence in trends.

Gord then went on to explain how DDMI determines if the source of change is actually Diavik. Data from each location is examined, and pooled into near, mid and far fields, and analyzed differently for each. Data from Station 18, the last point of control (far-field), is compared against the license limit. Concentrations are expected to increase as the mine develops, including copper and total ammonia. The near field, where effluent first mixes with Lac de Gras water, has no license limits, but DDMI's objective is to stay below CCME guidelines. This is the first year of data collection. Mid field sites show low levels; CCME criteria are less important the further from site samples are taken.

Gord also explained a problem that DDMI had with 2002 samples taken during ice cover. Because of the delay between sampling and data analysis, the error was not caught in time to re-sample. DDMI is working on correcting the process so that re-sampling can be done if there's a problem.

The general sampling approach is used for all parameters, including biological ones, such as chlorophyll A (primary productivity) and zooplankton biomass. Data is combined, and if there is an issue with a data set, the analyst can go back and separate out individual samples. Samples are always collected in duplicate: one for analysis and the other for a permanent record. Zooplankton taxonomic analysis can take a long time, but benthic invertebrates are more routinely analyzed, so take less time.

Gord stated that in general, DDMI recommends no changes to the field program, but is aiming for earlier evaluation of samples so that errors can be corrected, as well as higher quality reporting.

Observations include:

- results at Station 19 less than CCME guidelines;
- ice cover results show higher levels than open water at Station 19;
- increase over background noted at 40 (TSS) and 44/45 (turbidity) – all results within baseline range for mid-field station;
- no times where far field levels increased;
- phytoplankton and zooplankton – not much change;
- benthic invertebrates – 2002 greater than 2001, more similar to baseline; and
- no trends in sediment samples.

Gord informed the Board that DDMI has now completed 2003 sampling, and are waiting for results.

DFO raised the issue of DDMI not having a control site for their AEMP sampling. This issue has been raised before, with suggestions for control sites at Lac du Sauvage, or some of the bigger bays in Lac de Gras. The DTC has accepted DDMI's program, but DFO is still concerned about DDMI having a control site. Gord responded that DDMI gave this serious consideration, and that the first version of the AEMP intended Lac du Sauvage as a control site. However, it's not a valid control site because BHP routes Misery water through this lake. Upon recommendation by the DTC, DFO and EC, a bay in Lac de Gras has been added as a far field site.

The issue of the number of samples was again raised. Gord responded that the amount of data collected presently is more than enough to demonstrate change with plenty of lead time. Cost is a major downside dealing with another set of samples, but Gord emphasized that more data won't predict problems any earlier. DFO stated that they contracted two aquatic scientists to review the AEMP, who have concluded that the program isn't sensitive enough to adequately detect change. DFO has recommended that EMAB ask again for an independent review of the program. Gord stated that DFO has not communicated these issues to DDMI, and added that the AEMP must be looked at in conjunction with the SNP for a complete view of DDMI's monitoring program. He said that changing monitoring programs once they have started is very destructive, and that this AEMP has been already approved.

DFO asked Gord at what point during the analysis steps mitigation occurs. He responded that DDMI reviews mitigation as they progress through the steps. The last step is a formal requirement to assess mitigation options, but DDMI tries to address them voluntarily and on a continuous basis before the final step is reached.

There was some general discussion about regulators' concerns about DDMI's AEMP, and why questions continue to arise when plans have already been approved. DDMI feels that regulators are uncomfortable with the AEMP because it's substantially different from other monitoring programs in that it discovers change earlier than other programs, and DDMI assumes more responsibility for change than they are likely to cause. Gord stated that conventional programs assume the proponent isn't causing the environmental change, whereas the AEMP assumes DDMI is guilty until proven innocent. He added that he has experience with this program in other settings, and that it is effective. He participated in implementing a similar monitoring system in Alberta for a gas plant, and suggested that EMAB contact their community-based board to discuss how the program works. Also, he stated that BHP appears to be moving towards a monitoring system more like DDMI's, including trend analysis. Additionally, individual members of the DTC have changed since the AEMP was approved, causing it to be revisited, in order to bring the new members up to date.

The Board discussed the role of regulatory authorities with respect to DDMI's AEMP, as well as EMAB's role; there is some confusion about how decisions are made. One Board member pointed out that monitoring programs should take change for granted; elders know that anything you do on the land will change it. The Board agreed that it would be to their benefit to see the reports produced by the aquatic specialists retained by DFO, who agreed to summarize their views and provide them to EMAB.

**Action Item:** DFO will summarize their consultants' reports on the AEMP and submit to EMAB.

Gord clarified the fact that the program presented was the base monitoring program, and that there are additional programs built into the system, as required by the water license.

One Board member stated that in his experience, in the past, nothing ever happened until a water license was contravened. He stated that DDMI's program has merit, as shown by the ammonia issue: they are already predicting levels in the future, not just reacting to problems. Another Board member contrasted EMAB with IEMA, which appears to usually be dealing with issues after they've happened, and must make recommendations after the fact. The Board agreed that they need to understand the AEMP and their involvement in the pro-active process as issues arise. This brought up the issue of EMAB hiring a communications expert so that dialogue with communities can be useful and effective.

A Board member asked Gord how DDMI could better address missing data points, as was shown for 2002 during his presentation. He responded that analysis of results and statistics must be done sooner after sampling is complete, so that mistakes can be caught in time to allow re-sampling if necessary. DDMI's sampling system itself is satisfactory, and they are working on improving this system to be more like the SNP sampling system.

DFO questioned Gord about the changes between the 2002 samples and the baseline, and how DDMI corrects data points. He responded that data points can only re-analyzed, and that if that doesn't work, outlying data points must be ignored. He stressed that the AEMP and the people involved with it need to have time to get established before changes are made, as they tend to disrupt the system and produce inaccuracies. He commented that getting community based monitoring for water quality established, along the lines of the fish palatability study, will help in terms of acceptance of the AEMP. The Board agreed that, along with defining EMAB's comfort level and clarifying answers to regulators' questions about the AEMP, they need to get involved in community based monitoring.

*Elaine Blais left the group at 2:38 pm.*

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*Break – 2:40 pm.  
Resume – 3:00pm.*

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### **Water Quality / Ammonia Issue**

The Board continued with discussion about DDMI's water license amendment application.

Gord informed the Board that he was unaware of any requests from interveners to MVLWB to hold a hearing. EMAB raised the issue that this procedure is very unclear, and that they would like to comment on these issues. John McCullum stated that while they can be expensive, there is value in holding public hearings. But, if issues aren't dealt with at a hearing, the DTC is tasked with assimilating the public's comments, drafting recommendations and giving them to MVLWB to make a decision. The initial round of comments appears to mostly be questions, some of which remain unanswered. He raised the question as to when and where these questions would be answered, if no public hearing is held. Credit was given to DDMI for compiling responses, but this was done voluntarily, outside the MVLWB process. The timing of the whole process is off for communities, as those with questions are supposed to make decisions before their questions are answered. There should be time for people to do their own research and formulate their response to the MVLWB. Another issue raised was the fact that DIAND, DFO and Environment Canada held a private meeting

with DDMI, at which DDMI responded to these regulators' questions. MVLWB directed that notes be taken at this meeting, but none were. All agreed that MVLWB should have this information on the public record.

All agreed it was within EMAB's mandate to comment on these procedural issues, especially given the concerns heard in Kugluktuk around communities having a reasonable timeframe to provide meaningful input into the regulatory process. John McCullum told the Board that the outcomes of the water quality workshop in Kugluktuk will need to be considered in making recommendations about the MVLWB decision-making process, once a final workshop report is available from Terriplan. The Board discussed EMAB's role, and whether or not the EA defines EMAB as a regulator; EMAB's role in the process appears complicated. However, the Board agreed that if there are concerns with the regulatory process, then EMAB should identify these issues whether they're related to DDMI or not.

In terms of acting as an intervener, there was some question about whether the Parties would expect EMAB to intervene on their behalf. The Board also discussed EMAB's and DDMI's role in explaining the process of community participation, which is important and that needs to be addressed. One member pointed out that a hearing might not be necessary if workshops were organized to inform communities about DDMI's water license amendment application.

The Board agreed that EMAB needs to understand these regulatory procedural issues and their implications, and that these wider issues are not appropriate to bring to the water license amendment application hearing. It was also agreed that EMAB should start working on a community based monitoring approach, so that the Parties are more involved in the regulatory process. It was also suggested that EMAB could recommend to MVLWB to set up a consultation process with communities.

The Board discussed the best approach to bring up the procedural issues, and it was agreed that this should be dealt with separately from any other concerns EMAB has with MVLWB. EMAB is less comfortable addressing technical issues, but definitely has the expertise to address procedural/consultation issues. MVLWB will receive lots of technical input from other regulators. Members agreed that EMAB should continue to attend DTC meetings to ensure this issue is being dealt with, and then allow the process to run its course. Once it's complete, EMAB will have a strong platform on which to raise all relevant concerns and issues with the regulatory and consultation process.

It was then brought up that EMAB's technical expert, Peter McCart, had raised some technical issues that no other regulators had. McCart wasn't satisfied with some of the answers received from DDMI. Gord stated that he and McCart differed in opinion on a number of issues, but that he didn't believe McCart had made any specific recommendations.

The Board agreed to not intervene on the water license amendment issue and not seek a hearing, and to deal with technical issues through the DTC. All agreed that the procedural issue must be sorted out for all involved. Florence Catholique reminded members that Lutsel K'e doesn't recognize the authority of the MVLWB. The remainder of the discussion was postponed until the following day.

*Evening break at 4:00 pm.*

***September EMAB Board Meeting  
September 25, 2003 – Day Two  
EMAB Board Room, Yellowknife***

**Present**

Bob Turner, Chair, North Slave Métis Alliance  
Floyd Adlem, Vice-Chair, Government of Canada  
Doug Doan, Secretary-Treasurer, Government of the NWT  
Doug Crossley, Kitikmeot Inuit Association  
Florence Catholique, Lutsel K'e Dene First Nation  
Johnny Weyallon, Dogrib Treaty 11 Council

John McCullum, Executive Director

**Absent**

John Morrison, Government of Nunavut  
Erik Madsen, Diavik Diamond Mines Inc.  
Angus Martin, Yellowknives Dene First Nation (alternate)

**Guests**

Cheryl Wray, Diavik Diamond Mines Inc.  
John Virgl, Golder Associates  
Julian Kanigan, DIAND Inspector  
Steve Matthews, GNWT-RWED (EA Biologist)  
Robert Mulders, GNWT-RWED (Carnivore/Fur-bearer Biologist)  
Paul Latour, Canadian Wildlife Service, Environment Canada  
Anne Gunn, GNWT-RWED (Ungulate Biologist)

**Minute Taker**

Linda Tourangeau, EMAB  
(Minutes also recorded and transcribed by Erica Janes, GeoNorth Limited)

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*Meeting reconvened at 9:00 am.*

The Board began by reviewing their decision from the previous day, to write to MVLWB outlining EMAB's concerns with the regulatory process. Members agreed that two letters should be written: the first to address technical issues and request a response, and the second to comment on the more broad procedural issues already discussed, once the process has unfolded and EMAB has had a chance to observe. One member commented that it might be wise to clarify EMAB's expectations from the outset. The Board was reminded that it's legitimate for them to ask questions, but to be careful about taking a position on the issue, which may be awkward in terms of their role as a watchdog.

*Erik Madsen arrived at 9:45 am.*

There was some further discussion as to how to divide up the two letters to MVWLB. One member reminded the Board that the community of Kugluktuk could be most affected by the water license



amendment, and that EMAB should remind MVLWB in the first letter that they must consider Kugluktuk's written concerns, which have been submitted to MVLWB. In the first letter, EMAB should also clearly state their support of the DTC's activities, and their intent to continue as observers.

**Action Item:** John McCullum will draft two letters to MVLWB for the Board to review next week.

The Board agreed that there was no urgency for the second letter concerning procedural issues, and that it should definitely not be DDMI-specific in its concern. There was some discussion about addressing Mackenzie Valley wide issues, but also getting specific about their EA. The Board agreed that the letter should be copied to all Parties, and also to the DIAND Minister.

### **Wildlife Effects Monitoring Program**

Cheryl Wray, DDMI, presented the results from the 2002 WEMP, which wasn't in fact the whole program. 2003 will be the first year that the program is carried out completely, and will be submitted in March 2004. It was revised based on recommendations from both EMAB and RWED. The 2002 WEMP Report was submitted in March 2003, and Cheryl promised to get copies of it for those who hadn't already received it.

### **Vegetation**

Cheryl showed slides of the wildlife study area for Diavik, which covers about 1200 km<sup>2</sup>. The WEMP program objective for vegetation is to determine if direct vegetation and habitat loss due to mining operations within the mine footprint exceed the EIA predictions of 11.63 km<sup>2</sup>. DDMI will determine this by comparing annual satellite images with a baseline image. Up until 2002, 4.33 km<sup>2</sup> had been lost, (broken down by vegetation class). The Board requested that Cheryl change the wording in her presentation from vegetation and habitat lost "to date" to "up until September 2002" for clarity.

### **Caribou**

Cheryl stated that four components were added to the caribou program, and presented study results for each study component:

1. **Habitat loss.** The EAR predicted 2.80 habitat units to be lost for full mine development. In 2002, 0.083 units were lost, for a total of 1.062 units lost to December 2002.
2. **Zone of influence.** This includes both the Diavik and Ekati study areas (2800 km<sup>2</sup>). Starting in 2002 and in cooperation with BHP, Diavik flew weekly transects of the area from April through September (the caribou program is the only one carried out in cooperation with BHP). The northern migration is considered to happen from April – June 30, and the southern migration from July 1 – beginning of September. During the northern migration, 80% of caribou groups sighted were feeding or resting within 3 km of Diavik. Further than 3 km from Diavik, 65% of groups were feeding or resting. During the southern migration, 57% of groups were feeding or resting within 3 km of the mine, and 52% were feeding or resting further than 3 km away.

Cheryl informed the Board that these scanning observations were conducted to monitor caribou behaviour as a function of distance from the mine site, as recommended. She said that herd

demographics were also collected, and that all raw data was appended at the end of the WEMP Report.

There was some discussion about sampling areas for this portion of the study program, which are distributed between a 0-3 km-radius ring around the mine, and then a concentric 3-7 km-radius ring. There was some question about the difference in density between the two areas, and whether or not the figures indicated a zone of avoidance around the mine. It was suggested that density be examined by habitat type. Diavik stated that they are open to taking advice and recommendations from RWED about this part of the program.

3. **Distribution of Movement.** The EAR predicted that caribou would be deflected west of East Island during the northern migration, and would move around the east side of Lac de Gras during the southern migration. The study area was divided into four quadrants, and total caribou numbers were counted in each. The predicted effect was observed in 2002, but Cheryl reminded the Board that this was only one year of data. Caribou have tended to concentrate in the western part of the study area, but more data is required over the long term to draw any conclusions about distribution of movement. She told the Board that more detail on this topic is included in the Regional Study Report.

Some concerns about scale were raised, relating to the amount of water within Diavik's study area. DDMI responded that the data is broken down by habitat type, to takes into account differences in habitat between Ekati and Diavik.

4. **Mortality.** Project-related mortality was predicted to be low, and this was found in 2002. One animal was found in a crevice on the west end of East Island, but the cause of mortality was not determined because getting to the carcass was a safety issue. There was no wolf mortality reported.

Cheryl also reported on Diavik's caribou advisory monitoring on site, which lets workers know how many animals are in the area, in case operations have to be suspended. In 2002, a yellow advisory was declared on three separate occasions, indicating between 100 and 1000 animals. This represents a frequency of caribou on site less than 1% of the time.

In terms of mitigation effectiveness, Cheryl stated that Diavik staff herded caribou 26 times in 2002 (25 times on the airstrip and once on a haul road), 25 of which were during the southern migration. Diavik plans to continue with this mitigation measure. Part of this program includes recording numbers of animals seen along haul roads. Also, Cheryl told the Board that DDMI is recording caribou use of dust deposition areas, which is a large community concern. The program involved surveying to see how many caribou and what type of behaviour is exhibited on roads, and within 50m, 50-200m and over 200m from roads. The majority of caribou recorded were between 50 and 200m of the road, and their behaviour is documented in the WEMP Report. Dust deposition was also measured as part of this program, but it didn't include the airstrip. There is a control area on the southern mainland.

**Action Item:** Cheryl will send EMAB a copy of the dust deposition report.

Cheryl said that other programs were not conducted because caribou were not seen, but if caribou are present this year, DDMI will proceed with all programs, as outlined in the WEMP submitted.

### **Grizzly Bears**

Cheryl told the Board that some programs were not included in 2002 because DDMI staff were being trained by Golder staff for the 2003 program. Programs completed in 2002 were:

1. **Habitat loss.** The EAR predicted 8.049 km<sup>2</sup> to be lost from the project. In 2002, 0.243 km<sup>2</sup> was lost, bringing the total to 3.141 km<sup>2</sup> as of September 2002.
2. **Presence.** Mine development was not predicted to influence the presence of grizzlies in the area. DDMI surveyed eight riparian plots, two of which had fresh digs; all plots had digs older than one year. This year, DDMI will survey 18 sedge-wetland plots and 18 riparian plots, as recommended.

Cheryl clarified that presence was confirmed by digs, dens, kills, physical presence, and/or scat: this is the same program that BHP follows. For safety considerations, biologists do an aerial survey to check for bears in the study area before doing a ground survey.

3. **Zone of influence.** The maximum zone of influence from mining activities was predicted to be 10 km. Aerial surveys showed one bear within 10 km of the mine, and 6 further than 10 km from site. Cheryl stated that this program may have to be looked at again, considering that a huge part of the study area is water. She also showed slides of the locations of collared adult female bears.
4. **Mortality.** Mortalities associated with Diavik activities are expected to be one bear every 2-3 years. DDMI had to relocate one bear in 2001, which was taken 25 km southwest of the mine site, but no mortalities have been recorded so far. There was a question as to whether the bear's presence was related to some sort of attractant on site.

Cheryl stated that this study program needs more years of data before it makes sense. Ekati now has four years worth of survey data, and trends are just starting to become apparent. They are trying to calculate a disturbance coefficient that represents the likelihood that grizzlies are using a plot as a function of distance from the mine.

DDMI has requested they be able to use RWED's satellite collar data to find out how much time two particular bears are spending within 10 km of site, and further than 10 km from site. This will help to fill out the picture of grizzly activity in the area.

### **Wolverines**

Cheryl told the Board that the EAR predicted that the mine wouldn't cause a measurable shift in wolverine presence. Diavik does 2-3 inspections each week of the waste management areas, and started wolverine track / sighting surveys this year. Bobby Algona from Kugluktuk was hired to set up transects for a wolverine monitoring program on site starting in April 2003, based on traditional knowledge of preferred habitat. Diavik is writing up definitions of suitable habitat, which includes areas adjacent to high cliffs, narrow rocky outcrops, and scree slopes. Cheryl stated that this methodology is now being used at Ekati, Snap Lake and Diavik, and as a result, this is the first year

that snow dens have been found. DDMI takes this as an indication that they're on the right track, and feels this is a great example of using TK in monitoring and involving local community members.

RWED stated that they are using a new way of tracking wolverines. It involves snagging fur samples, and DNA analysis will allow biologists to determine how many individual wolverines are in a given area, using this new system. They are now determining the sampling density required, and suggested that DDMI look into using this system.

Cheryl said that there were only 2 days where wolverines were documented in the study area in 2002, as opposed to 25 in 2000, and 36 in 2001. Track surveys have started in 2003; years before only included aerial surveys. She added that 8-10 wolverines were taken by nearby outfitter camps, so DDMI expects wolverine numbers to be low for 2003. Mine-related wolverine mortality was not predicted or reported in 2002. There were also no incidences at the waste transfer site or the landfill. Inspections are done in these areas 2-3 each week, and food or food packaging was found 50% of the time; this was before the incinerator was installed on site. The frequency of inspections has been increased due to recommendations, and has been extended to be year-round. Also, employee education about proper waste management has been augmented.

There was some discussion about cumulative effects from all activities in the region, including hunting. RWED stated that they are trying to keep a tally of animals taken by outfitters, and put all the data together to get a picture of the cumulative effects.

### **Raptors**

Cheryl stated that disturbance from the mine was not predicted to result in measurable impacts to the distribution of raptors in the study area. Surveys of known nest sites are done annually in cooperation with RWED and BHP, and activity there is documented. In 2002, six sites were investigated: 4 were occupied, and one produced three fledglings.

The EAR predicted that Diavik wouldn't cause a measurable change in raptor presence in the study area. No project-related mortalities were known, although there was a peregrine falcon trapped in the maintenance building. RWED was called and helped to release the falcon. Also, DDMI found a dead snowy owl at the south end of East Island during a water quality survey, which was given to RWED for analysis. The cause of mortality was unknown.

### **Waterfowl**

Cheryl told the Board that this program is fully developed. The EAR predicted direct aquatic habitat loss to be 3.58 km<sup>2</sup>. 0.968 km<sup>2</sup> were lost in 2002 due to dyke construction, for a total of 1.22 km<sup>2</sup> up until September 2002.

Diavik was not predicted to cause a measurable change in waterfowl presence in the study area. DDMI's monitoring included walking the shallow bays identified as important staging areas. Peak movement and species have remained consistent since 2000.

There was some concern that open water caused by the diffuser line from the North Inlet water treatment plant might attract waterfowl year-round. DDMI observed more birds in 2002 than in 2001, and most were gulls.

Waterfowl mortality is expected to be low. However, five red-throated loons were killed as a result of being caught in fish nets used for salvaging fish from the A154 pit. These nets were set under a DFO requirement. The loons have been sent for toxicological studies, looking for long-range toxic effects. DFO was made aware of the situation, but there was some discussion about DFO's requirement for leaving fish salvaging nets up for long periods of time, leading, in this case, to waterfowl mortality.

Cheryl stated that the 2003 WEMP will have more information, as DDMI plans to implement the entire program. She told the Board that all technical study procedures were included in the WEMP Report.

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*Break – 10:55 am.  
Reconvene – 11:15 am.*

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### **Regional Wildlife Monitoring Program**

John Virgl of Golder Associates gave a summary of results from the regional caribou monitoring program for 2002. This is an extension of the project-specific WEMPs in regards to caribou for Diavik and Ekati. It was developed because of concerns over the potential cumulative effects of mining on caribou in the Lac de Gras region. In 2002, DDMI and BHP collaborated with the objective of gathering larger-scale information on caribou distribution, relative abundance, group composition during the post-calving migration, and behaviour. John thanked Diavik for the opportunity to present the study results, and pointed out that the satellite data are from RWED's collared animals.

John showed a slide of the study area, which is an amalgamation of the Diavik and Ekati project-specific study areas, totaling 2800km<sup>2</sup>. He pointed out that several lakes are believed to be barriers to caribou movement during their southern migration, including Exeter, Ursula, Lac du Sauvage and Lac de Gras. This is because the lakes are open during this time, and very large. Animals will cross at narrows on Lac du Sauvage and Lac de Gras, but in the last six years of survey data, animals haven't been observed crossing these lakes. One Board member stated that traditional knowledge contradicts this observation.

John told the Board that the regional study area is divided into 3 parts, based on natural geographic features. He showed a slide of transects flown weekly from mid April to late September 2002. For caribou seen along the transects, which are 1.2 km wide (600m on each side of the plane), observers reported behaviour, group size, location, habitat type, and herd composition. A larger-scale picture is provided by the satellite collar data from RWED.

John explained that caribou behaviour during the two migratory periods is quite different, so analysis was separated into the northern migration (mid April until the end of June) and the southern (or, post-calving; July 1 until the end of September) migration. From the satellite collar data, it's evident that most caribou move up the west side of Lac de Gras during the northern migration, and down the east side during the southern migration. Numbers drop off in June, when caribou are calving near Bathurst Inlet, and then increase again in mid to late July, when animals pass through the area on their southern migration. Between 1997 and 2000, southern migration through the Lac de Gras region has occurred later, and now can be as late as the first week of August. In some years, numbers peak again in September or October. John explained that while animals are widely distributed in space and time, their movement is somewhat predictable in that they tend to move directly to the calving grounds in the northern migration in a linear pattern. As predicted by DDMI's baseline studies, most caribou travel to

the west of the study area on the northern migration, but this depends on the location of their wintering grounds. Over the past six years, the peak of the northern migration has been in late May; this migration tends to be much less variable than the southern migration. The southern migration pattern tends to be clockwise and is probably driven by insect abundance and availability of food.

John showed the Board a map displaying data on herd size and location for the 2002 northern migration, which corresponds with RWED's satellite collar data. Caribou were recorded using frozen lakes as travel corridors, which traditional knowledge also speaks to. Animals recorded on the heath tundra were generally feeding or resting. There was some discussion about reasons for some caribou movements being more random during the northern migration than in other years; possible reasons include looking for food, avoiding predators and insects, and escaping bad weather. It was generally agreed that there is a degree of tradition to their movements.

RWED stated that they've developed a model for the direction of caribou movements during migration. Considering the very small proportion of the herd that has satellite collars, RWED expressed amazement that caribou movements can be predicted to the degree that is now possible. This area still needs work, and RWED stated that there is a great need for government, industry and traditional knowledge holders to work together to complete the picture. All agreed that the satellite collar data is extremely useful. RWED agreed to follow up on how survey data for caribou is used in terms of the probability of caribou encounters at specific sites, which was a recommendation from the Snap Lake Environmental Assessment.

John then showed a slide of caribou group locations during the post-calving migration, which had a more even distribution than during the northern migration. In the study area, most groups (70-80%) consisted of 1-10 animals, 20-30% consisted of 11-100 animals, and only a couple groups were in the 100-500 range. Group composition is recorded to give an idea of the herd's health. In 2002, 24% of the herd had calves, which is within the range recorded for the Ekati study area from 1998-2002. During the migration, caribou were most abundant in the heath tundra habitat as compared to riparian, eskers or shorelines, and most resting and feeding caribou were recorded in the riparian/shrub than any other habitat. Further analysis needs to be done before the caribou habitat selection model is complete.

John stressed the fact that with the exception of the satellite collar data, he was presenting only one year of data, and no conclusions should be drawn at this point. He stated that the effort put forward by Diavik and BHP to cooperate on caribou is a good start to understanding cumulative effects in the region.

There was some discussion about the potential impacts of outfitter camps on caribou movements. Although it is not within DDMI's mandate to examine, it was pointed out that working with these camps may bring in more data and observations that would be useful in determining and predicting caribou movements. It was also pointed out that lots of caribou data is being collected, but that somebody should be compiling it to get a better overall picture, and so that it's useful and accessible information for communities. EMAB stated that they had sent recommendations to RWED on this issue; the Board believes that since outfitters are impacting the herd, RWED and the outfitters together should be responsible for monitoring their impacts on caribou. EMAB hasn't received a clear commitment on this issue. RWED stated that the Bathurst Caribou Management Planning Committee (BCMPC) has requested funding from DIAND to build a database on caribou that would be accessible

to various groups. RWED is making some progress on this complex task, which will require a high degree of cooperation from all parties involved. They will bring this back to EMAB.

**Action Item:** DDMI will speak with RWED wildlife biologists about having study results released earlier, so that suggestions can be implemented, and the WEMP can be more adaptive. This will be brought back to EMAB.

EMAB requested that the Board be copied on all correspondence between RWED and DDMI in regards to developing common data analysis techniques. This issue had been raised as a result of RWED and DDMI differing in their approach to analysis of caribou data. One Board member suggested that it would be within EMAB's mandate to recommend that DDMI and RWED work together on this issue. Another member stated they were comfortable with this program as long as other RAs have approved it.

RWED stated that the process for setting up programs like this one seems to be working fairly well. RWED is interested in reviewing draft reports with EMAB, and in providing recommendations for the following field season. This means that reports from DDMI must be submitted with enough time for a review and for recommendations to be incorporated into the program. One Board member pointed out that communities must also have time to review reports and provide input, and questioned DDMI about the amount of community involvement in their wildlife programs. DDMI responded that they hired a community member from Kugluktuk to develop and conduct their wolverine program, and also hire summer students every year from the communities for different survey programs. Community based monitoring is one component of DDMI's wildlife programs; DDMI stated that if communities wish to develop a wildlife program, they can approach DDMI for funding and participate in wildlife monitoring this way.

One Board member posed a question about the sustainable harvest of wolverine in the study area, and whether the population was in danger from over-harvesting. RWED responded that outfitter harvests of wolverine have ranged from 5-15 animals each year for the last five years. RWED stated that they are trying to understand and monitor cumulative effects on the population better. Under the West Kitikmeot/Slave Study, 25 adult females were collared, and individual ranges observed, which gave insights into basic ecology. RWED wants to monitor the age-sex composition of harvested wolverine in order to get a better picture of the population, and will be implementing an NWT-wide harvest registry. In addition to hunting, road development and access are also important issues. One Board member pointed out that the Wildlife Aboriginal Advisory Group had recommended that wolverine and wolves be taken off the big game list during the discussions of the new wildlife act.

There was some discussion about DDMI's report submission; some present were concerned that reports weren't distributed widely enough. EMAB also raised the issue of the timing of report submissions again, stating they would like there to be enough time to incorporate suggestions for the following year's field program. One Board member pointed out that this would allow more adaptive management of their programs. RWED and DDMI agreed to talk about this suggestion and get back to EMAB with their thoughts. John Virgl pointed out that this could become difficult, because the program schedules for DDMI, BHP and DeBeers are all similar, and there are only a few consultants doing all of this work. DDMI agreed to try to have the study results available by the end of February, for review by EMAB and RWED.

EMAB agreed to make a recommendation that RWED and DDMI meet about making WEMP reporting available earlier, so that any recommendations can be incorporated before the next field season begins. In addition, EMAB will recommend that all RAs receive copies of the WEMP, and that wolverine monitoring is dealt with. EMAB agreed to meet on these three issues at a later date.

**Action Item:** EMAB will discuss earlier reporting for the WEMP, the recommendation that all RAs receive WEMP copies, and the recommendation that wolverine monitoring is implemented.

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*Lunch break – 12:30 pm.*

*Reconvene – 1:50 pm.*

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### **Water Quality / Ammonia Issue**

The Board returned to this issue to discuss a letter from MVLWB in response to EMAB's request for an independent review of DDMI's AEMP. MVLWB had responded that they don't feel it's their responsibility to do independent reviews, and recommended that EMAB conduct an independent review of their own. The Board discussed MVLWB's and DTC's role in detail, agreeing that MVLWB didn't adequately respond to their concerns. The Board agreed that a response to the MVLWB was warranted, and discussed sending another letter. It was suggested that a letter should be written for the record requesting a meeting, and that the Board should consider sending a letter to the Minister on this issue. However, it would be more effective to meet in person. In addition, one Board member suggested that because lack of funding may be preventing MVLWB from doing their job, EMAB should try to be helpful in their letter.

**Action Item:** the Executive Committee will set up a meeting with the Chair of the MVLWB to discuss EMAB's recommendation for an independent review of DDMI's AEMP.

### **No Net Loss**

John McCullum informed the Board that a letter had just arrived from DFO, granting a time extension for DDMI's dyke monitoring study report, which was required following onset of mining activities.

The Board then discussed the recommendations that came out of the water quality workshop in Kugluktuk. They decided to wait for the final report from Terriplan before releasing any recommendations. However, it was suggested that the Board address the issue of the water quality monitoring stations along the Coppermine River. Bart Blais from DIAND had said that all water quality monitoring stations along the Coppermine have been shut down because of funding cuts, and one recommendation that came out of the workshop was that DIAND reinstate that funding. The Board agreed that this issue should be pursued, as it has an effect on the community of Kugluktuk.



**Motion #01-03-09-25**

*Recommend to DIAND that funding be reinstated to continue water quality monitoring along the Coppermine River.*

*Moved: Doug Crossley*

*Seconded: Angus Martin*

*Decision: Carried unanimously*

**Wildlife Effects Monitoring Program**

The Board agreed to discuss the issues that were raised earlier, that could lead to EMAB recommendations, later on. Members agreed that they needed more information, and that DDMI should participate in the discussion.

**TK Panel Terms of Reference for Review of No Net Loss**

John McCullum reviewed the latest draft of the TK Panel Terms of Reference, as included in the meeting binder, for Board members. With direction from the last meeting, he formulated the Terms of Reference based on the No Net Loss issue relating to Diavik after consultation with the Executive. He mentioned that he set it up as a one-day workshop.

There was some discussion about whether the EMAB TK Panel would be the party consulted by DDMI and DFO, who had previously agreed to consult communities about their priorities for No Net Loss projects, and if not, who would be consulted first. One member suggested that the panel should review the issue and work with DDMI and DFO to determine the principles and process to follow, and then provide them with community priorities for projects. With a good facilitator, work could be done towards identifying specific projects. There was some disagreement about this. Also, the related issue of who gets to make decisions about funding for these No Net Loss projects was raised. The Board expressed concern that communities would continue to be adequately consulted with and involved in decisions about where money is spent.

There was some question as to whether the TK Panel's objectives were meant to replace the community consultations that DFO and DDMI committed to doing by Christmas, at the July EMAB meeting. The Board then discussed the necessity of communicating their plans for the TK Panel with DFO and DDMI, as well as the timing of the consultations in relation to the actions of the TK Panel. It was generally agreed that DFO and DDMI should not be discouraged from consulting with communities, but that their consultations aren't a replacement for the work of the TK Panel. One Board member suggested that the TK Panel meet with Elders and community members to thoroughly review issues, develop their ideas, and create a unified voice before DFO and DDMI go to the communities, so that consultations with them would be more effective. All agreed that this procedure would make DFO more likely to accept their recommendations.

There was some discussion about the need for the TK Panel's objectives to be simple. This is also important because of the difficulty in moving from complex government policy to specific projects: it was pointed out that some sort of process must be put in place to deal with this. One Board member suggested that studies recommended by the TK Panel be rotated to each Party. It was also suggested that EMAB send a letter to the Minister to address the fact that DFO refuses to include fisheries management issues in the scope of the No Net Loss policy. Another Board member pointed out that if

the TK Panel's are presented with clear issues and objectives, and they meet the objectives in coming up with cohesive recommendations, causing TK to be incorporated effectively into DDMI's operations, it would set a real example for government.

Board members agreed that the workshop should be at least two days, and that using the traditional camp at the mine site should be considered. There was some disagreement as to whether or not DFO should be notified of EMAB's plans for the TK Panel.

**Action Item:** John McCullum will re-draft the Terms of Reference for the TK Panel on No Net Loss, based on discussions with the Board and feedback from the Executive. It will then be sent out to all members for review.

### **Executive Committee Reports: Capacity Funding**

John McCullum informed the Board that proposals have been received from the NSMA (whom he assisted) and the Yellowknives Dene. The Yellowknives' proposal did not provide details, so was sent back. He has offered to assist them, but hasn't received any response. EMAB was also copied on an internal funding request from the Kugluktuk HTO to the KIA. Funds have already been released to Lutsel K'e. There was some discussion about whether or not Parties' proposals need to come to the Board for approval, or can just sit with the Executive, and go to teleconference if there are urgent matters that need to be addressed.

**Motion #02-03-09-25**

*Approve the NSMA Capacity Funding proposal for 2003-04.*

*Moved:* Florence Catholique

*Seconded:* Doug Doan

*Decision:* Carried unanimously

The Board then discussed how to deal with any other outstanding capacity fund proposals, and the status of each Party's proposal.

**Action Item:** John McCullum and Johnny Weyallon will discuss the available capacity funding for Dogrib Treaty 11 Council.

The Board disagreed on how EMAB policy dictates that capacity fund proposals be dealt with. After some discussion, it was suggested that a motion be made to amend EMAB policy so that capacity funding decisions rest with the Executive instead of the Board. John McCullum reminded the Board that EMAB policy can be changed at any time.

**Motion #03-03-09-25**

*Amend present EMAB policy to reflect delegation of authority to the Executive Committee in reviewing and approving proposals for Aboriginal Capacity Funding.*

*Moved:* Florence Catholique

*Seconded:* Johnny Weyallon

*Decision:* Carried unanimously

**Executive Committee Reports: Operations Manual**

Floyd Adlem directed the Board to the meeting binder, with the latest draft section of EMAB's Operations Manual.

Motion #04-03-09-25

*Approve the EMAB Operations Manual sections 5.2.6 through 5.2.12.*

*Moved:* Floyd Adlem

*Seconded:* Florence Catholique

There was further discussion about cultural leave for employees. It was pointed out that National Aboriginal Day is identified as a statutory holiday under s. 5.2.2. The Board discussed if criteria for cultural leave should be firmly established, or whether some discretion should be left to the manager. John McCullum stated that it would be better for the manager to have discretion, because of EMAB's small staff and difficulties if cultural leave is requested during a time when all staff are needed. It was agreed that civic leave is covered under special leave, and under the manager's discretion.

*Decision:* Carried unanimously

**Action Item:** Floyd Adlem and John McCullum will start compiling Operations Manuals for all Board members.

**Executive Committee Reports: Communications Specialist job description**

John McCullum reviewed the draft job description, as included in the meeting binder, and told the Board that the contents were mainly taken from the Communications Strategy. John stated that he had circulated the job description, and had only received comments from Bob. It was pointed out that "affected communities" should be changed to "Aboriginal peoples", despite the fact that this will conflict with the wording in the Communications Strategy.

The Board discussed the process for approving job descriptions: it was generally agreed that the ED and the Personnel Committee will approve the description, but that Board members are welcome to make comments before the description is posted. A formal process isn't necessary, and Personnel Committee members will remain the same.

**Action Item:** the Personnel Committee will review the job description for the EMAB Communications Specialist, and determine a timeline for the hiring process.

**Translation Fees**

The Board discussed the fact that there has been some confusion about what translators should be paid. There is a need to have a rate set in EMAB policy, so that the ED has some direction, and so that it's not up to others to determine what EMAB pays translators.

**Motion #05-03-09-25**

*Approve rate of \$400/day, or \$50/hour for any part of a day to a maximum of 8 hours a day, for translators hired by EMAB.*

*Moved:* Doug Crossley

*Seconded:* Doug Doan

*Decision:* Carried unanimously

*Floyd Adlem left the group at 3:30 pm.*

**Executive Committee Reports: Financial Reports**

Doug Doan pointed out that John McCullum had drafted revisions to the budget, and asked them to review the financial reports and revised budget included in the meeting binder. John McCullum stated that the revisions were completed based on discussions with Doug Doan, and reviewed the changes:

- Administration:
  - under-spent on administration; will change with Annual Report and website costs
  - no proposed changes to budget
- Capital costs:
  - mostly one-time costs
  - under-spent, but will change with recent computer purchase for a Board member
  - no proposed changes to budget
- Management services:
  - under-spent, but will change with hiring of Communications Specialist and Board professional development and travel
  - benefits: staff insurance still not effective
  - professional consulting services: currently over-spent (GeoNorth minute-taking)
  - suggested increase to benefits from \$5000 to \$6400
- Board expenditures:
  - close to being on track, but community consultation a little high
  - suggested increase from \$8000 to \$14,700 for community consultation
- Board sub committees:
  - a little high because of Personnel and Annual Report Committee activities
  - no more expenses for Annual Report Committee anticipated
  - no changes proposed for Executive Committee
  - suggest increasing Personnel Committee budget from \$3000 to \$6000 in anticipation of upcoming hiring process
- Projects:
  - currently at \$0, but will increase dramatically with incoming Water Quality Workshop expenses, setting up the TK Panel, and retaining a water quality expert
  - Water Quality Workshop expenses estimated at around \$100,000
  - suggested increase for TK Panel to \$40,000 (tentative)
  - suggested increase for Board development workshop up from \$6500
- Capacity funding:
  - KIA and Dogrib Treaty 11 have been removed from budget because of not spending their \$30,000 funding allocation last year
  - contingency funds have changed to account for this

John stated that EMAB is financially on-track at this point. Doug Doan reminded Board members that the way they set out the authority for the ED and the Executive Committee was in context of an approved budget. He informed the Board that certain things have changed partway through, so this version is much more accurate than it was, and is based on latest knowledge.

**Motion #06-03-09-25**

*Approve EMAB's revised 2003-2004 budget.*

*Moved:* Doug Doan

*Seconded:* Johnny Weyallon

There was some additional discussion about the interest generated by EMAB's funds. It was confirmed that this current deficit budget that will use up some of the current surplus, and it will be completely used up surplus by the end of 2005. Then, EMAB will look to DDMI for new money. He also stated that the next budget to be submitted to DDMI will be in September 2004.

*Decision:* Carried unanimously

**Standing Offers for Wildlife and Fisheries Expertise**

The Board was directed to a summary of proposals submitted to EMAB for standing offers on wildlife and fisheries expertise, included in the meeting binder. Six proposals were received, but two came in well after the deadline (AMEC and Kavik-AXYS), and one was to provide plain language services (NWT Literacy Council). The three proposals summarized are from Gartner Lee (Yellowknife office), IEG (Calgary office), and MSES (Calgary office). John stated that all looked good, though some were better on wildlife or on fish. He discussed the proposals with the Executive, and suggested that the Board should either consider pre-qualifying them all for work with EMAB, or just pick one company for fish and one for wildlife. With the first option, EMAB could set up a rotation until the best contractor becomes evident. This arrangement would be in place until the standing offer agreement expires at the end of March 2004.

There was some discussion as to whether or not the companies would accept this kind of arrangement, but it was generally agreed that the companies wouldn't see this as an issue. One Board member also raised the issue of hiring northern companies, which is EMAB policy. None of the three companies that submitted proposals on time were registered as northern businesses, although Gartner Lee has a Yellowknife office. No registered northern businesses had met the submission deadline.

**Motion #07-03-09-24**

*Pre-approve Gartner Lee, IEG and MSES for standing offer agreements for fish and wildlife expertise.*

*Moved:* Doug Doan

*Seconded:* Doug Crossley

*Decision:* Carried unanimously

*Evening break at 4:00 pm.*

***September EMAB Board Meeting  
September 26, 2003 – Day Three  
EMAB Board Room, Yellowknife***

**Present**

Bob Turner, Chair, North Slave Métis Alliance  
Floyd Adlem, Vice-Chair, Government of Canada  
Doug Doan, Secretary-Treasurer, Government of the NWT  
Doug Crossley, Kitikmeot Inuit Association  
Florence Catholique, Lutsel K'e Dene First Nation  
Angus Martin, Yellowknives Dene First Nation (alternate)  
Johnny Weyallon, Dogrib Treaty 11 Council

John McCullum, Executive Director

**Absent**

John Morrison, Government of Nunavut  
Erik Madsen, Diavik Diamond Mines Inc.

**Guest**

Julian Kanigan, DIAND Inspector

**Minute Taker**

Erica Janes, GeoNorth Limited

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*Meeting reconvened – 9:15 am.*

**Board Disability Insurance**

John McCullum informed the Board that Manulife was able to meet all issues raised by EMAB concerning the Board Disability Insurance, for a slightly higher cost than originally quoted. He reminded Board members that rates for those who are self-employed will depend on last year's tax forms. The additional cost for covering travel to and from meetings is \$200 each (total of \$1000). Coverage will also be provided for alternate members for travel to and from sites, and at meeting sites.

Motion #01-03-09-26

*Accept Manulife Board insurance policy as presented.*

*Moved:* Floyd Adlem

*Seconded:* Angus Martin

*Decision:* Carried unanimously

**Cumulative Effects**

Floyd Adlem informed the Board that he had attended a CEAMF meeting on behalf of EMAB, and received their report. Linda will make copies of the CEAMF report available to Board members. One

Board member questioned who the responsible party for the cumulative effects of the winter road is, which produced some discussion about the EA process. No decisions were made about this topic.

### **Outstanding Action Items Update**

John McCullum led the Board through a review of the last Outstanding Action Items list. Changes to the current list are recorded on the updated Outstanding Action Items list. Some items discussed in more detail included:

- Location of the Board training exercise. It was agreed that it should probably be held outside of Yellowknife, and combined with a community meeting. Florence Catholique stated that if the Board requested to hold the training and meeting in Lutsel K'e, it would probably help address the shortage of accommodation in the community. Another option is to have the event in Wha Ti, particularly since the Board had planned a meeting there earlier in the summer.
- The lending guide for the EMAB/IEMA Boardroom was included in the meeting binder, and some specifics were discussed. The Board agreed that there should be a provision for users cleaning up after themselves. They also agreed to remove the clause that members could only use the space for BHP- or Diavik-related work. The Board decided that these guidelines didn't require formal adoption; they will be revisited if the system developed doesn't work.

*Johnny Weyallon arrived at 9:35 am.*

### **EMAB Website**

John McCullum informed the Board that he spoke with three parties about developing a website for EMAB: Jody Cogdale, Outcrop and Cold Mountain. He received two proposals, both of which included design, one year maintenance, and domain name and registration: all elements of a basic website. He outlined the proposed content, which includes:

- a page on EMAB;
- contact information for all members, with links to their organizations;
- a list of Parties and contacts;
- a map of Diavik and the affected communities;
- a link to the satellite photo of Diavik;
- EMAB annual reports and the EA; and
- links to IEMA, MVLWB, and others.

John reminded the Board that the website will be easy to change and add to as needed. He proposed that EMAB hire a contractor soon, so that the website can be developed in a format that allows the Board to review it and suggest changes. The goal is to have the website up and running by mid October. The Board approved John to pursue the least expensive option.

### **Report tracking format**

John reviewed the new Report Tracking chart format for Board members. He intends to provide the most current version of the chart as reference material in each meeting binder. He solicited feedback

from the Board about whether or not this was a helpful tool for members, and informed them that it requires minimal effort to keep up-to-date.

There was some discussion about applicable response deadlines for reviewing reports. It was generally agreed that as a monitoring board, EMAB must identify problems with processes, and encourage timely and adequate review and approval of reports. The new report tracking chart will allow the Board to clearly see what needs to be done. However, it was agreed that no action should be taken until it's ensured that deadlines in the report tracking chart are accurate.

The Board agreed that the chart was a useful tool, but that items that don't require a response should also be included. If the chart is carefully compiled, it could provide the basis for worthwhile recommendations from EMAB. It was pointed out that DDMI usually operates on deadlines, but regulators don't; it should be clear in the chart whether a response is required or not. John stated that the Board should identify whom they want to receive responses from, and how long it should take.

Board members agreed to review the chart and get back to John about their priorities for receiving responses to reports.

### **Correspondence**

#### **Lutsel K'e letter**

It was suggested that EMAB write a letter to RWED and DIAND in support of Lutsel K'e's proposal for caribou harvest funding, and in support of community proposals for this kind of funding in general. One Board member pointed out that RWED has a limited amount of funding for these activities, and that it's never enough money. The available funding doesn't take into account the greater harvesting costs when the herd moves further away from communities.

Doug Doan stated that he had tried to connect with individuals in Lutsel K'e on this matter, but wasn't able to do so. He indicated that Lutsel K'e's request should be directed to the South Slave RWED office. Florence Catholique stated that the second point in the letter was incorrect, and explained the history behind Lutsel K'e's request for funding. DDMI told Lutsel K'e that if the funding needed for harvesting isn't met by the IBA, then they should request additional funds, which is what they're doing now. One Board member stated that the information in the letter from Erik Madsen was incorrect.

It was pointed out that part of the basis for the letter was the question of whether harvesting is affected by mines. It would be appropriate for EMAB to make a recommendation about the effects of the mines on caribou migration routes; if this case is made, it would provide a stronger argument for Parties to receive further funding for harvests. Florence pointed out that the effects on Lutsel K'e's harvest have been covered by the media, but they haven't been able to address the issue with BHP because of their joint seat with the Yellowknives Dene on IEMA. She said that a similar letter was sent to BHP, but she was unsure if BHP had responded.

The Board agreed RWED's funding program for caribou harvesting didn't necessitate EMAB involvement, but that EMAB could work on confirming the effect of the mines on caribou migration.



**Action Item:** John McCullum will write a letter to RWED and request a presentation on monitoring changes in caribou movements and results at the next Board meeting. Once this information is received, EMAB will make a recommendation.

*Angus Martin left the group at 10:20 am.*

It was suggested that EMAB should follow up and determine if BHP responded to Lutsel K'e. The Board agreed to talk about the sections of the EA that pertain to harvesting and clarify their meaning at the next meeting. They also agreed that this issue would present an excellent opportunity to develop their relationship with IEMA, in working on this and other issues.

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*Break – 10:26 am.*

*Reconvene – 10:40 am.*

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### **Other**

John McCullum informed that Board that letters on fencing have been received from DDMI and DIAND proposing a meeting with EMAB to discuss fencing; the Executive will meet to prepare options for review by the Board.

### **DIAND Inspection Report**

Julian Kanigan presented the Inspection Reports from August and September.

#### **August 13 Inspection**

The focus of the August inspection were the PKC de-watering and the Pond 10 repairs. 20 new survey instruments were installed on the dyke, so that movements can be detected more easily during winter. Julian explained a slide of the SNP stations in the water. He also explained how sampling at some sites during freeze-up and break-up is problematic because of safety concerns. This is the first year this issue has had to be dealt with; alternative sampling locations will be used during these times. A concern was raised about the water level dropping under the ice and preventing correct sampling; Julian said he would check on ice thickness in relation to station depths and get back to the Board.

Julian told the Board that the dyke engineer had noticed a crack in the east part of the PKC dam in June, which occurred due to ponding of A154 water. The engineer recommended that a PK slurry be used to make a beach along the PKC. This was done, and the integrity of the dam is now complete.

Julian showed a slide of the pad created for coarse kimberlite rejects, in case the opportunity to process for smaller diamonds comes along. He explained that the pad is being used to store type 1 rock presently, and acting as a staging area for materials that will be needed later.

Julian explained that water from the PKC, dewatered into the clarification pond and pumped to Lac de Gras via the North Inlet, presented a concern because no parameters have been set for monitoring it. This practice is within the parameters of the PKC operating plan, but wasn't anticipated so soon. DDMI has said this is a one-time event. Julian is concerned about biological oxygen demand and fecal coliform counts, and has also asked for oil and grease to be sampled for. Three parameters are now being monitored at the effluent discharge. The Board stated they weren't informed of this issue, and

Julian stated that he wasn't either. DDMI had it in their operating plan, so didn't see this practice as a change, and it's in compliance with their water license. However, Julian informed the Board that he had met with DDMI and discussed the need for greater communication. Julian has reviewed DDMI's monitoring plans, and so far they are within parameters.

Julian showed a slide of the fractured rock in Pond 10 that was allowing seepage into Lac de Gras. The rock was fractured from an attempt to blast it to remove it from the pond. DDMI had dug sumps to contain the seepage; more information will come in two follow-up reports from DDMI. Downstream from Pond 10, the seeps are completely dry, so the issue appears to be resolved.

Julian showed a slide of the crusher area during spring runoff, where water was ponding and running over the rocks. He explained that DDMI is now digging a ditch from the crusher area, and water will be pumped from there into the PKC.

The next slide showed the lined transfer facility, where the Diavik Emergency Response Team is now doing all their re-fuelling during training exercises. This tends to produce spills, but in this location, they're now easily cleaned up.

Julian then showed a slide of the ammonium nitrate storage bags. This has been an ongoing issue, but that DDMI is now slowly transferring the bags up to the bulk ammonia site and to use them. He is going to give DDMI a deadline to October 31 to move the bags. There have been some minor spills, and this risk must be minimized.

Another recurring issue is where DDMI can dump and store snow plowed off of roads in the winter. Debris must be cleaned up after the snow melts.

*Angus Martin returned.*

### **September 2 Inspection**

The September inspection focused on the A154 re-fuelling station small spill cleanup, the missing parameters in monthly SNP report, and DDMI's successful annual mock spill training exercise.

Julian explained that DDMI is using one sump in the A154 pit, and that he has suggested having two sumps, to prevent water running over blast rock and picking up more ammonia than necessary. Water is currently running through a defined channel, but the pit is wet and water runoff hard to control.

During this inspection, Julian looked at the blast patterns on site. He explained the blasting process to the Board, and said that it was a very clean site: he found 2-3 spots where there were tiny ammonium nitrate prill spills. He also inspected another site that was wetter, but still clean. He said that he will be doing these inspections regularly, but that blasting experts there seem to think it's a model site.

Julian showed a slide of the A154 dyke on the north side, where a small crack had been marked. He stated that EMAB should have received the dyke safety inspection reports; there are no further concerns with the cracks, but monitoring will continue.

Julian informed the Board that the trenches to prevent seepage under the west PKC dam have been finished; the spigots have been removed, and no more fine PK is being deposited. Coarse PK will be

placed on top, followed by a geotextile. The piping has now been moved to the north side, where deposition of fine PK will happen this winter. The dam surface is being prepared. The Board was told that PKC dewatering was still occurring. DDMI will be now starting at baseline again, with no more dewatering occurring as of September 28.

In Pond 10, runoff water is being collected, and no seepage is occurring because the water level hasn't reached the cracked boulder. The weekly geotechnical inspection hasn't reported any seepage. DDMI is trying to keep the water at a 'natural level' to prevent turbidity and erosion by wave action in the pond. There isn't a concern keeping water here, as it's not against the dam.

Julian showed a slide of the ditch from the crusher area down to Pond 1, which is now finished. It continues to the main haul road intersection, and a driveway access culvert has been installed. In case of runoff, a 2 m berm will be breached, so that water goes into the ditch and flows to Pond 1. The slide of the crusher area showed that dust suppression isn't being done in that area, but the rock above is being wetted, which Julian stated is working well to keep dust down.

Julian also showed a slide of the new A154 re-fuelling trailer, where the attendant will be able to work in the winter. There was a piece of equipment in the lined area next to the berm, which was of concern because there was a small spill in the vicinity. The spill is being cleaned up.

Lastly, Julian showed an overview slide of the rock piles, with types 1, 2 and 3 rock labeled. He told the Board that type 1 is till, which surrounds types 2 and 3, which could be acid generating.

One Board member asked if the rock piles would be contoured at reclamation. Julian replied that they would be, and that DDMI has a visual representation of their plan on the web. They are planning to create two ramps of finer materials, which would prevent caribou from breaking their legs. The whole area will be contoured and re-vegetated. Another Board member asked about fencing, but Julian responded that isn't part of his duty. As decided earlier, EMAB will set up a meeting with DIAND and DDMI about this issue. A question was asked about the containment area for waste material. Julian responded that the material is stored in c-cans or barrels, which are trucked out on the winter road when it's ready. These are stored in the waste transfer area, where there's also a land farm, and sewage sludge deposition area. Julian clarified for the Board that Diavik has the capacity to store the ammonium nitrate bags indoors, but have just been transferring them over on an as-needed basis, so that they don't have to move them twice. Julian estimated it was about 40-50 bags that would have to be moved in total.

*Julian Kanigan left at 11:30 am.*

### **Upcoming events**

#### **Fencing**

Bob Turner stated that EMAB has received two letters of response on the fencing issue, and next steps are to set up a meeting and a workshop. It was decided that John McCullum and the Executive should consider the options for holding both a meeting and a workshop to develop recommendations, and email Board members for their comments. It was then put forward for EMAB to hold another teleconference to discuss the WEMP, the TK Panel, No Net Loss, and the fencing issue.

**Next meeting**

The Board discussed potential dates for this call, as well as the next Board meeting. The call will likely be in late October, with the Board meeting in late November. During a previous conversation, Johnny Weyallon stated that he would work with John McCullum on organizing a meeting in a Dogrib community in the next couple of months, as the Dogribs are next on the list for a community meeting.

Motion #**02-03-09-26**

*Adjourn meeting.*

*Moved:* Johnny Weyallon

*Seconded:* Doug Doan

*Decision:* Carried unanimously

*Meeting adjourned at 11:43 am.*