

Environmental Monitoring Advisory Board

FINAL Minutes – October 26 & 27, 2016

EMAB Boardroom, Yellowknife, NT

9:00 am - 5:00 pm October 26

Present:

Napoleon Mackenzie, *Chair*

Julian Kanigan, *Secretary-Treasurer*

Jack Kaniak, *Director*

Arnold Enge, *Director*

Gord Macdonald (by phone), *Director*

Sean Richardson (by phone), *Director*

Yellowknives Dene First Nation

Government of the Northwest Territories

Kitikmeot Inuit Association

North Slave Metis Alliance

Diavik Diamond Mines

Tlicho Government

Absent:

Charlie Catholique, *Vice-Chair*

Lutsel K'e Dene First Nation

Staff:

John McCullum, *Executive Director*

(also minutes)

Allison Rodvang, *Environmental Specialist*

(also minutes)

Environmental Monitoring Advisory Board

Environmental Monitoring Advisory Board

Guests:

Tracy Covey, GNWT Lands (Day 1 only)

Bill Slater, SEC (by phone, Day 1 only)

Patty Ewaschuk, WLWB (by phone, Day 2 only)

Petter Jacobsen, Tlicho Government (Day 2 only)

David Wells, Diavik (by phone, Day 2 only)

Leanne Zrum, North-South Consultants (by phone, Day 2 only)

Megan Cooley, North-South Consultants (by phone, Day 2 only)

1) Call to Order

Chair lead opening prayer and called meeting to order at 9:10 am.

2) Approval of Agenda

The Chair opened the floor for amendments to the agenda.

Discussion on follow-up actions for Arcadis comments on Diavik responses regarding SSRBCC.

Action: ED to check with WLWB on any follow-up regarding SSRBCC responses.

Motion: To approve the agenda as presented.

Moved: Julian Kanigan
Second: Jack Kaniak.
Motion carried.

3) Conflict of Interest

No conflicts were declared.
ED mentioned Code of Conduct forms and Conflict of Interest forms still need to be signed by some Directors.
Gord noted he had signed already.

4) Approval of Minutes

September 7-9 Meeting Minutes

- Noted there was a discussion about making sure alternates attend Board Meetings when Directors are unable to.
- Sean Richardson asked if EMAB received letter appointing Zabey Nevitt as Tlicho Government Alternate. ED said EMAB has not received it yet.

Action Item: Add action to Sept 7-9/16 minutes for Directors to request their alternates to attend EMAB meetings when they are not available.

Motion: *To approve the Meeting Minutes for September 7-9 as amended.*

Moved by: Julian Kanigan

Seconded by: Arnold Enge

Motion carried.

ED reviewed Action Items

- Find out when Joanne Barnaby is free to facilitate discussion at EMAB Meeting with TK Panel
- Make sure to track EMAB recommendations that have not been responded to within the 60-day period.
- Have not received comments on EMAB presentation for communities.
- Remove Diavik from list of Parties needing to confirm alternate
- Tlicho update will be moved back to January
- Remove David Wells action to provide KIA participation agreement

Email motions read into minutes.

5) Financial Report

ED presented item from kit.

Discussion

- EMAB may not be able to complete review of ICRP by end of fiscal year now that submission date is changed to Feb 24/17 – may have to talk to Diavik about carrying money over
- Suggestion to retain original budget in first column of spreadsheet
- Suggestion to have a column that provides justification for change to budget

- Question about what “travel” under “governance” included. That is Board Member travel to meetings. Overspent in that category because of charter to Diavik at last meeting. Staff travel budget is in “Involving and supporting communities” as well as under “management.”
- Reduce staff travel budget from \$7000 to \$1000 and increased board travel from \$12,000 to \$18,000 to make up for going over on Diavik charter.
- Suggestion that there needs to be a process when the Board approves costs that are not budgeted for.

Action Item: ED to look at process for reallocation for unbudgeted costs.

Action Item: Request agreement from Diavik in writing to carry over funds for ICRP review if not be completed by March 31, and any other items that may not be completed by March 31.

Motion: *To accept the revised budget and financial statement dated Oct 12/16.*

Moved: Napoleon Mackenzie

Second: Jack Kaniak

Motion carried.

Item presented on Board Member Honorarium to avoid owing money to CRA at end of year.

Action Item: ED to send Board Members TD1 forms that will reflect total salary.

Item presented on Review of GNWT Honorarium rates

- EMAB honorarium rates are fixed in operations manual

Motion: *Board Member honorarium rates should increase by CPI annually.*

No seconder.

Motion dropped.

Comment that last meeting’s discussion wasn’t to come up with new honorarium rate, but to see where EMAB’s honorarium compared to others.

Item presented on Direct Deposit investigations

Noted that an app is available for smartphones to replace tokens

Action Item: develop a policy for direct deposit system using RBC Express keeping two “signatures” for each cheque. Should be ready for review by January.

BREAK

6) 2017-2019 Budget Review

Diavik and EMAB are happy with the straight forward process for setting the budget. Useful that EMAB asked for Diavik’s expectations for what the budget should be.

7) Closure Workshop Update

ED asked if the proposed dates are workable, and if Shauna Morgan is the right person to facilitate.

- Board Members voiced approval of Shauna Morgan’s proposal.

Motion: *To approve Shauna Morgan’s proposal to facilitate EMAB Closure Workshop.*

Moved: Jack Kaniak

Second: Julian Kanigan

Motion carried.

Discussion

- All Board Members attend with two people from each Aboriginal Party. Also include a couple of TK Panel members
- Incorporate a site visit. Note that it is not possible to bring in participants from Kugluktuk on Sunday since there are no weekend flights. That would mean site visit on Tuesday, requiring a charter.
- It would be beneficial if participants had a bit of experience on the land, and with Diavik, and are connected to decision makers in the community. EMAB will contact leadership to choose people.
- At this point, Board Members agree dates and charter seem appropriate. Gord noted the charter is an extravagant use of EMAB funds.

10) Review of TSS Regulatory Process

This item was suggested at EMAB's last meeting, and deals with EMAB's role of monitoring Diavik, the regulators and the regulatory process.

Discussion

- No need for EMAB to review this
- This is a legal issue, not a scientific issue
- Anytime a Minister is brought into process is a good time for EMAB to weigh in
- Comment could be made in the Annual Report – Report card on Diavik and Regulators
- Q: what is the goal of reviewing the process?
- A: It is in EMAB's mandate to review regulatory process.
- The best place to put EMAB's opinion is in our Annual Report.
- Q: What does EMAB want to gain from this?
- A: Two Aboriginal Parties said the process was flawed, why wouldn't EMAB want to follow up on this. Could give direction how this should change in the future.
- Issue is that Diavik went directly to the Minister. LKDFN and YKDFN raised that point so they should pursue it.
- Two odd things occurred in process: WLWB made a recommendation that was not proposed by any intervenors, and Diavik was seen as sidestepping the regulatory process by lobbying the Minister.
- ED noted EMAB could seek a legal opinion; develop a ToR.
- The second issue is that the Inspector rescinded his direction to Diavik. It is a burden on the Inspector to prove Diavik was out of compliance and caused or was likely to cause harm. On the surface, it appears Inspector does not have authority to provide direction on non-compliance through section 67(1) of the Waters Act.
- EMAB's objective is to review the process and see if there are any issues that should be commented on.

Action Item: ED to prepare an options paper on possible approaches to a review of the TSS Regulatory Process for Board to consider at next meeting.

Lunch 12:00 pm – 1:00 pm

8) Closure Criteria Review Update

Bill Slater joined the meeting by phone. Updated board on status of making recommendations to improve Diavik's closure criteria.

- Bill contracted a landscape and wildlife consultant
- Bill is looking at engineering designs and stability

- Expects to have a draft memo and recommendations table by November 10.

Q: Who is looking at water?

A: Relying on Arcadis to provide expertise on surface water quality.

It was noted that the WLWB has directed there be a closure criteria workshop for Diavik

Action: Keep WLWB informed of EMAB review of closure criteria

Action: If Bill has questions for Diavik about criteria he is welcome to contact them. Keep ED informed

11) Follow-up on EAQMP and WMP Report

ES presented item from kit.

Action: Arcadis to review Diavik responses on EAQMP, including dispersion model. Get an estimate first and inform Board. If Arcadis has questions they should contact David Wells.

Action: MSES to review Diavik responses; need to determine why MSES has questions that Diavik says were answered. Get an estimate first and inform Board.

Noted that EMAB is not aware whether GNWT has commented on the EAQMP report. Recommended that in future EMAB request comments from GNWT by a specific date, so that both sets of comments can go to Diavik.

9) Inspector's Report

Tracey Covey gave presentation on most recent site visits to Diavik.

Noted that there were areas near A21 construction where a suspended sediment plume was visible but no SNP station. It was not possible to add an SNP station due to the wording of the Water Licence. These were tested and found to be compliant, but testing was ad hoc based on Inspector's request.

Noted that Inspector's Reports are all available on the WLWB registry.

- Q: How many shutdowns of A21 construction were there?
- A: Hard to say because there are different elements to the project so there can be partial shutdowns.
- A: 8 shutdowns in total.
- Q: How many shutdowns would there have been if Water Licence had been amended?
- A: None.
- Q: Now that A21 has slowed down, what are some things you are going to be focusing efforts on?
- A: Rockpile and underground. Closure plan

Break

12) Discussion on Diavik questions about EMAB support

ED presented item from kit.

Noted that the presentation EMAB received was the same one given to communities, including the questions.

Discussion on support for Diavik undertaking additional studies to assess putting PK back in underground workings.

- Diavik has been doing community engagement meeting on closure plan. Diavik is planning to distribute a letter to Aboriginal Parties and EMAB asking if they support the NCRP design plan.
- Diavik is asking for support to test putting PK back in underground because they do not want to start studies/trials if parties are very opposed.
- putting PK in the underground is a good concept to follow-up on; EMAB should encourage investigation.
- Q: What are the pros and cons of putting it back in the underground?
- A: Diavik doesn't know if they can put material under one pit without having it end up in another, since they are connected underground; cost to move material; how much material could go back in; would any material re-surface once pits are filled with water.
- Noted this is being done at Ekati; however it is in small lakes, not LdG

Motion: *To support Diavik's request to undertake additional studies to support putting PK in underground.*

Moved: Arnold Enge

Second: Sean Richardson

Jack Kaniak and Gord Macdonald abstained.

Motion carried.

Discussion on support for NCRP design

- Not prepared to go beyond EMAB comments and recommendations that were submitted to WLWB during review process. Don't want to interfere in WLWB decision process by giving support before a decision is made.
- Diavik will get community feedback
- Diavik is planning to ask Parties and EMAB to write a letter to Diavik either stating approval or disapproval of the NCRP design plan. Diavik will submit those to the WLWB.
- Q: Is it part of EMAB's mandate to state approval?
- A: It is a valid response to say that this is not within EMAB's mandate.

Action: circulate EMAB comments on the NCRP Closure Plan to Board members

Action: Review WLWB letter regarding NCRP Closure Plan

Action: Review EA for guidance on whether EMAB's mandate includes supporting closure plans.

13) Report on SMA Environmental Forum

ES updated Board Members on conference in Saskatoon, SK.

Noted that there is a TK study in the Tlicho region looking at when caribou return to land that has been burnt. A study by Golder updating RSF's found caribou use the tundra portion of the range in winter more than was previously thought.

Action: ES to circulate material from Forum once it's posted. This could go on EMAB's website

Noted that it is valuable for staff to do professional development.

Meeting Adjourned at 3:50 pm. Meeting reconvened on October 27, 2016 at 9:00 am.

14) Presentation on Diavik RECLAIM estimate

Patty Ewaschuk from WLWB presented by phone. Presentation in Dropbox.

WLWB approves the Closure and Reclamation Plan, including security. Main costs are the tailings and waste rock piles. The activity that costs the most is moving material.

Each component includes a contingency amount, which is a percentage of the estimated cost. The percentage used varies depending on the uncertainty for closure of that component.

Diavik submits an amount as part of the ICRP submission. Stakeholders can comment. EMAB has not commented in the past. Usually GNWT is the only organization providing input. WLWB reviews the estimate as well.

Questions and Answers

Q: Did the change to the PKC design change the security estimate:

A: Yes. The cost came down. Will likely change again in ICRP ver 4. The PKC has the highest contingency. Noted that ICRP ver 4 will speak to alternatives being explored but will not change design

Q: What happens if there is an issue on site down the road, will there be any equipment left on-site? How are these costs taken care of.

A: These long-term issues haven't been resolved yet. It relates to residual risk. GNWT has proposed keeping the contingency component of each item; this was done at Ekati.

Q: What happens to the buildings?

A: Go to communities if they can demonstrate a use and a plan; Diavik needs to know there will be no long-term costs. Diavik will try to recycle as much as possible. The rest will be landfilled and covered.

Comment: at the Kugluktuk community update, people were concerned about the landfill being left on-site.

Q: Does the WLWB consider that there is another 16 million in security held by the GNWT under the EA?

A: The WLWB does not consider this. Diavik noted potential for duplication.

15) Tlicho Caribou TK Presentation

Petter Jacobsen presented on "We watch everything – a boots on the ground approach to caribou monitoring." Petter is originally from Norway and has been working with Tlicho for six years. Presentation is in Dropbox. He noted that the presentation is about the TK Research methods, not TK itself.

Reference to previous Tlicho TK study on cumulative impacts on the Bathurst caribou. It found that migration routes and caribou health have changed since the 1990s, and that this is attributed to mining and development. Would like scientists to examine the biochemical mechanism for these changes in caribou health.

The study was a pilot year to identify indicators:

- body shape, hide condition/colour, walking posture, injuries, cows with calves.
- Habitat – condition of food
- Predators
- Climate
- Industrial impacts

Q: Do maps of caribou migration routes as described by elders in the study exist for regulators?

A: Working on this. Would be useful for identification and protection of key migration areas, land bridges, water crossings.

Report is not yet complete.

16) 2015 AEMP Report Review

David Wells presented results of 2015 AEMP Report.

Noted that 2015 was not a comprehensive sampling year. Dust was higher in 2015 due to A21 construction.

Q: Phosphorus is not included in first table with Action Levels?

A: Phosphorus does not have an Action Level. It is a eutrophication indicator. It is reported in the SNP reports.

Q: How were phosphorus limits set?

A: Not sure, that is a condition in the water licence. Phosphorus is a loading limit.

Q: Is comparison of chemistry results in snow against the water licence criteria useful given what we know about dust and effects on caribou ZOI?

A: An AEMP objective is getting the total impact on the lake from deposition. Different program for assessing deposition on lichen – done as part of the WMP.

Q: What does the lichen study look like?

A: Collect dust deposition data near the mine and 40 km away. Compare to historic values. Do a risk assessment on dust and caribou health. Risk to caribou has been low in the past.

Q: How are phosphorus loadings compared to EA predictions.

A: not sure, but likely lower since water treatment was not originally planned.

North/South Consultants presented their review of Diavik's 2015 AEMP Annual Report.

Noted that re-doing of plume delineation is being considered in the AEMP re-design.

Q: is the discrepancy in exceedances of metals in snow chemistry data between the non-technical summary and technical appendix a big deal?

A: Accuracy, in many cases, the non-technical summary is all people have time to review, so it is important that it reflects the results. However, the contribution of dustfall to the overall chemistry of Lac de Gras should be something to keep an eye on, but this is not used as an approach to assessing effects on the lake until the AEMP re-design is approved.

Q: Are there any other indicators of eutrophication that could be used to assess effects to plankton?

A: Not necessarily, but there should be more discussion of the relationship between chlorophyll a and phytoplankton biomass, since the amount of chlorophyll a varies between plankton species. This should not be looked at in isolation.

Noted that CIMP has done a study on this that should be ready for release soon.

Q: Were the elevated dust levels at MF3-2 surprising?

A: Depends on prevailing wind direction, higher dustfall in 2015 due to additional surface constructing, Action Levels are set up using effluent pathway but it is also important to look at dust effect pathway. Levels in water column are more likely to be from dike construction than dust.

N-S would like to see key supporting variables included in the phytoplankton discussion, such as temperature and light.

Lunch. Meeting resumed at 1:15 pm.

16) 2015 AEMP Report Review Cont.

ED suggested EMAB have a conference call next Tuesday at 11:00 am to discuss final report review.

17) DOT Letter

ES presented item from kit.

Discussion

- ENR says introduced species on ice road via trucks is not too much of a concern due to cold weather. Seeds might survive. No one knows how much of an issue this is because trucks aren't surveyed.
- People in YKDFN have brought up this concern before. Safety is the main concern.
- The southern part of the Enbridge pipeline has more introduced species.

Board Members are comfortable with tabling this community concern. EMAB can revisit if it becomes more of an issue.

18) Strategic Plan status

Item presented from kit.

Try to align the strategic planning with the two-year budget cycle.

19) Board Member Update and Community Concerns (roundtable)

Jack Kaniak – KIA

- Diavik came to Kugluktuk to give closure presentation
- About 30 community members attended
- Same presentation as was given at the last EMAB meeting
- Diavik had one incident with haul trucks but no one was hurt
- Dr. Heidi Swanson (University of Waterloo) also gave presentation to Kugluktuk on a water and fish study
- Participants from the community were also involved in study
- Looked at contaminants in fish and water quality and compared results to guidelines and other northern locations
- Water sampling was done at three locations (Bloody Falls, mouth of Coppermine River, and two miles west of community) and three times (July 22, September 5 and 9)
- Metals were all below guidelines except iron
- Bacteria was above guidelines but within range of natural variation
- Mercury in fish was 8 times below consumption guidelines; selenium was OK; arsenic was ok
- Community was happy with the project because it was the first time a project like this was done at this level in the community
- Got the sense community supported the NCRP cover, but concerned about water/seepage developing along the edges
- Community members against burying materials in landfill; would prefer material to be hauled back
- Community members prefer storing PK underground if it can be done safely

Sean Richardson – Tlicho Government

- Would like to have a Board Meeting in Behchoko and an open house in the evening
- Bring old Board Members and introduce to the new Board Members
- Repairs on hall should be done by November 26
- Hall rental is \$500 and with catering \$1040

Napoleon Mackenzie – YKDFN

- Concerned about substance abuse in community
- Does not feel the issue has gotten better, instead it continues to get worse

Julian Kanigan – GNWT

- Presented at Aquatic Toxicology conference in Edmonton, AB. There was a session on community based monitoring specifically in the north. IEMA spoke about the value of having a technical board, while Alex Hood spoke about the importance of getting people on the land to watch it for themselves. It is interesting how each mine operationalizes their Environmental Agreement, and on a whole it is a unique system in the NWT.
- The conservation planning unit has finalized protected areas and might be able to send to Board Members

Arnold Enge – NSMA

- Diavik presented to NSMA on closure; NSMA wants Diavik to investigate putting PK underground
- NSMA doesn't have too many concerns
- Use EMAB to watch Diavik

Community Meetings

- YKDFN contact is Melissa Mackenzie
- NSMA contact is Shin Shiga

Query about CIMP review of cumulative effects at Lac de Gras. Julian can present this at the next meeting.

20) Next Meeting

Joanne is available week of Dec 12 or Jan 9. Possible dates are December 13/14 or January 10/11. Most Board Members were more in favour of January meeting. Not necessary to meet two weeks after EMAB workshop.

Motion: *To adjourn meeting.*

Moved: Jack Kaniak

Motion carried.

Meeting Ended at 2:30 pm.