

Environmental Monitoring Advisory Board

Conference Call Minutes – January 9, 2020

Present:

Jack Kaniak, *Vice-Chair*
Laurie McGregor, *Alternate*
Gord Macdonald, *Director*
Violet Camsell-Blondin, *Director*

Kitikmeot Inuit Association
GNWT
Diavik Diamond Mines
Tlicho Government

Absent:

Machel Thomas, *Secretary-Treasurer*
Charlie Catholique, *Chair*
Arnold Enge, *Director*

Yellowknives Dene First Nation
Lutsel K'e Dene First Nation
North Slave Metis Alliance

Staff:

John McCullum, *Executive Director*
(minutes)
Janyne Matthiessen, *Environmental Specialist*
(minutes)

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Guests:

Megan Cooley, *North South Consulting*

Thursday, January 9, 2020
Conference Call at 10am

Discussion on EMAB's recommendations for Diavik's AEMP Design Plan Version 5.1.

Executive Director opened the meeting at 10:03am

Q: What did the WLWB rule for version 5.1?

Executive Director gives background on status of AEMP Design Plans

- Version 5.0. was not approved by the WLWB.
- Direction was for Diavik to engage with Parties and submit a revised Version 5.1.
- WLWB released Version 5.1. for public review in November 2019.
- Reviewer comments are due January 14, 2020.

Megan Cooley from North-South presents on the review of AEMP Design Plan Version 5.1

Changes to Sampling Sites and Monitoring Frequency

- Noted that since the inflow and outflow to Lac de Gras (LDG) are flowing water they don't do chlorophyll *a* collection there.

Q: which comments are reiterations of previous comments, and which are a result of the engagement between EMAB and Diavik?

A: the comments are all from the engagement where Diavik and EMAB/North-South were not in agreement.

Discussion on Lake Trout Health/Mercury Surveys

- Staff and consultant are confused on the difference of the triggers for the 2 separate components.
- Not a lot of description about what the differences are.
 - Proposed trigger is quite a bit less sensitive than previous designs
 - Need to know how sensitive the current design is for seeing trends in mercury in sculpin
- Important to clearly distinguish between the fish health study and the fish mercury study.
- Noted that mercury studies can be done as non-lethal but fish health survey is lethal. Diavik prefers to avoid lethal studies.

Discussion on Slimy Sculpin Metrics

- Diavik proposed to drop the age metric because it was unreliable
- Diavik considered EMAB's previous recommendation and added length-frequency distribution as well as catch per unit effort (CPUE).
- New combination of metrics is good. Issue is that they are not included in the Action Level Assessment.

Q: If they do not measure age will that remove measuring bioaccumulation over the years?

A: They will still measure metal concentrations, which show what fish accumulate over time.

Discussion on Plankton and Invertebrate Metrics

- Noted that Diavik removed metrics that are required by the MDMER.
- Noted that Diavik is still collecting those metrics, but not reporting them as part of the AEMP.
- NSC's position is that if they are doing it anyways then it should be reported on in the AEMP.

Discussion on Total Phosphorus Benchmark

- Staff feel that Diavik's proposal for a new TP benchmark of 10ug/L is too high.
- 5ug/L is the benchmark set by the Environmental Impact Statement and is more reasonable.
- Diavik's rationale is that 10ug/L is the upper limit for oligotrophic lake.
- Noted that it could be argued that LdG is ultra-oligotrophic, but it is a grey area.
- Noted that the proposed benchmark for TP should be in line with the benchmark for chlorophyll a
- Noted that TP and chlorophyll a do not have equivalent categories.
- Noted that WLWB provided the direction for Diavik to develop a TP benchmark because there were problems with chlorophyll a being the sole indicator

Discussion on Power Analyses

- Current program design has limited ability to detect change for a number of variables for fish, plankton, and benthic invertebrates.
- Noted that there are ways to increase the power while not having to drastically increase effort.
- Noted that the power analysis recommendations should be clearer.
- Q: What are we expecting to improve?

- A: Chlorophyll *a* results are not currently used in the toxicological Weight of Evidence analysis

Q: Can you discuss the abnormalities more?

A: abnormalities are often used to analyze fish toxicology. It is a semi-qualitative approach and can be used to track changes over time. In this case we want Diavik to use it as evidence of mine effects on fish.

Q: What would zooplankton in LDS indicate about LDG?

A: it would prove context, especially if they are already sampling phytoplankton, it would be good to compare the two. We are looking for Diavik to clarify what eutrophication parameters will be excluded from what locations and why.

Noted that staff did not circulate recommendation spreadsheet. Staff will get that out with edits ASAP.

Voting on recommendations to take place via email motion.

Meeting adjourned at 11:00 am