

**Independent Environmental Monitoring Agency
96th Meeting of the Board of Directors
Yellowknife, NT
December 6, 2016
Summary of Discussion**

Directors

Emery Paquin
Kim Poole
Tim Byers
Arnold Enge
Jesse Jasper
Doug Doan
Jaida Ohokannoak (joined at 4:30 pm)

Staff

Marc Casas, Executive Director
Jessica Simpson, Communications and
Environmental Specialist

Meeting commenced at 9:00 am

Meeting Chaired by Emery in the absence of Jaida.

AGENCY BUSINESS

Information Updates

Directors provided updates on the work they were involved in since the last board meeting, mostly consisting of providing input and review for the Jay Project intervention and presentation and attendance at the Jay Technical Sessions in Behchoko.

Incoming Correspondence

The main correspondence since the last Board Meeting are the interventions for the Jay Project water licence application and responses. This led to a discussion on responses and comments related to the water licence intervention.

Clarification on the updated WEMP/CRMP submission to ENR was also sought. ENR is addressing the WEMP/CRMP internally before it is sent to all parties for review.

Action Item

All Action Items from the last Board Meeting in September, 2016 were completed.

Financial Items

A number of issues were discussed, such as the cost of board meetings, workshops and the production of the Agency's annual report. It was agreed that the Agency would look into how the annual reports could be produced more efficiently. It is possible that the Agency does not need to print so many hard copies and could move towards a more efficient digital version.

A new column was added to the Agency's variance report, which shows the free balance remaining for the Line Item.

Directors also discussed the budget for hiring a consultant to work on the Closure Seepage Ecological Risk Assessment and the contract terms of reference.

Action Item #96-3: Marc will approach potential consultants to review of the Seepage Ecological Risk Assessment. Marc will also ask they provide costs estimates.

Action Item #96-2: Jessica will add to the AGM Communications Presentation that the Agency will be looking into the annual reports to produce them more efficiently.
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ITEMS CURRENTLY FOR REVIEW

Road Construction Plan/ Jay Project Type B Water Licence – Stream Crossing

Directors discussed the Road Construction Plan for Jay Project. Because one of the water crossings is over 5 meters, it triggers the need for a Type B Water Licence. Directors discussed how they want to approach this project and what issues to address. In the end the Agency decided to submit a letter on the Road Construction Plan that also addresses any stream crossing concerns. Therefore an extension of time was not requested for the Type B stream crossing application.

Jay Project: Water Licence Public Hearing

Directors discussed the process for the water licence and how to prepare for the hearing. The Agency presentation is approximately 30 minutes, which reviews everything the Agency has submitted.

EIR Final Comments

Comments are due January 3, 2017. Agency Directors discussed asking for an extension mainly because of the Christmas holiday and because communities did not receive paper copies of the EIR at the initiation of the 45 day notice.

Action Item #96-4: IEMA will send an e-mail requesting the final comments for the ENR be extended to January 13, 2017.

Closure: Seepage Ecological Risk Assessment

The Agency has expressed concern in the past about the waste rock seepage, which resulted in DDEC agreeing to do an ecological risk assessment. Last year, DDEC looked at the chemistry of the rock itself, and conducted Humidity Cell Tests to see if they could correlate what they were finding, and project it into closure and post-closure. The Seepage Ecological Risk Assessment is an important document because it examines the current and future seepage issues.

Agency Directors discussed hiring a consultant to review the Seepage Ecological Risk Assessment (See action item 96-3). The main issues to consider would be the chemistry of the rock, thermal conditions and seepage water quality.

Jay Project Draft Water Licence, Circulated for Review

Discussed was the remaining water licence process for the Jay Project. Closing arguments for the draft water licence is a month prior to WLWB decision.

The water licence is expected to be approved in mid-July 2017. The Directors discussed how long after the water licence is issued a closure plan should be finalized. The Agency thinks it should be 6 months, and the company would like 18 months. The Agency agreed that DDEC needs to be asked what kind of work they will be doing in those 18 months.

COMMUNICATIONS UPDATE

Community Consultation Policy

Directors agreed to change the honouraria for community participants, as outlined in the Community Consultation Policy, to \$400.00.

Motion to revise the Community Consultation Policy to increase community participant honouraria to \$400 per day. Jaida moved. Tim seconded. Carried without objection.

Action Item #96-5: Marc will work on updating the Community Consultation Policy to reflect the change.

Website Upgrades

Directors reviewed quotes for re-vamping the Agency website and decided to go with Verge Communications, with a deadline of March 31, 2017.

Mailing list for Annual Report and Brochures – discussion

Discussed was how the annual report brochures were distributed. The Agency prints enough brochures for each mailbox/household in the communities the Agency represents. Directors and staff in Yellowknife did not receive the brochure and it is suspected the issue is with Canada Post. It was suggested the Agency look at the GNWT Bureau of Statistics (for the expected number of households) to ensure that enough brochures are printed and work with Canada Post to ensure distribution.

Video and Script

Directors reviewed and made suggestions on the video script. It has been difficult to find a videographer who can put together the video for the Agency. It was suggested the Agency contact someone at GNWT who has produced promotional video to inquire what steps are involved.

Style Guide

The Agency's Style Guide was revised and approved.

Agency AGM

Discussed was how the AGM is advertised. It is in the Society By-Laws that the Agency is to give Society Members 30 days' notice. The By-Laws do not indicate how Society Members are to be notified. Directors agreed that public notice of the AGM will be printed in relevant newspapers.

Timeline website

The Agency want to know how Timeline is used. To do this, Google Analytics is embedded into the Timeline Code. However, the code is broken and there is an issue with a lost password that needs to be resolved. Jessica will continue to work on resolving this issue.

It was also discussed that anything that is sent out to the public, will also be sent to Directors via e-mail notification.

PRESENTATIONS

Cumulative Impacts Study on Lac de Gras

Julian Kanigan, NWT CIMP

Presented were the findings of a study that used existing AEMP data collected from Diavik Diamond Mine, Ekati Mine and ENR to detect if there are cumulative effects in Lac de Gras. CIMP wanted to work in partnership with the diamond mines because the study required their data. They also wanted the WLWB involved to meet the Board's needs. The consultant on this project was Stantec.

Although the project was successful, the main difficulties were for the mines to come together and to agree to provide their data in a timely manner, and defining a cumulative effect. Following are highlights of the study presentation:

- There are 2 spatially exclusive plumes, at the Lac du Sauvage and Lac de Gras narrows and Slipper Lake at the outlet at the west side. The study addressed the whole lake to see if there are changes in concentrations in water quality.
- Baseline data was collected in 1994 to 2000 and then post-baseline from 2001 to 2013.
- There were no data for the deepest parts of Lac de Gras.
- Directors talked about the warming and cooling of the lake. If there is a persistent oxidized lake, then phosphorous would be held there. It's a phosphorous lake and changing the trophic status of the lake is important. Right now, Lac de Gras is classified as ultra/oligotrophic.
- Six different spots were looked at for temporal variability. There has been steady and significant increases in the analytes, conductivity, hardness, chloride, sulphate and total strontium. The consultant saw a cumulative effect, but what CIMP wants to know is the relative contribution (from the mines?).
- Three nearby lakes (Nanuq, Vulture and Counts) were looked at for increases in hardness and strontium. An increasing trend was identified. Relative contributions: The mean annual loading into Lac de Gras from Diavik Diamond Mine effluent is greater than from Ekati Slipper Lake effluent for sulphate and chloride, etc. Mean annual loading from Ekati into Lac de Gras is greater than that from Diavik Diamond Mine effluent for iron and copper.
- CIMP posted the report on the WLWB public registry for the Diavik and Ekati AEMP reviews. The main conclusion is that it was hard to put the two data sets together. There was no framework for how they could be put together. The report makes suggestions for how the AEMP can be put together to improve the understanding of cumulative effects in Lac de Gras.

- There are a lot of good meta-data that needs to be better understood and there is not a lot of understanding on season variability. For example, if the weather is not good, they might not go out to collect the data. CIMP does monitor the same analytes in the same way, but need more consistency. There are some data gaps in the monitoring of the reference lakes.
- How water moves around Lac de Gras remains a question. It's possible there is a back eddy or wind patterns that bring the contaminated plumes to the far-field, vertically and horizontally.
- This report looks at the effluent from the two mines; it doesn't look at other cumulative effects, such as dust and sediments from dikes. There will be additional cumulative effects from the Jay Project and so the monitoring should be set up to account for that.
- Sediment cores samples were taken and analyzed for spatial variability of plankton. CIMP is also gathering data from Diavik and Ekati. The results for this will come at a later time.
- The second part of the study was to develop a hydrodynamic model that could be used in environmental assessments. But it was ultimately unsuccessful. There were a lot of opinions about what people thought was a useful model. This is the first time INAC or ENR have worked on a project like this. They have been helping on the project, which is being integrated with their work.
- The Agency had a discussion on the presentation: They thought it would be interesting to see how the regulators will pick up the recommendations as there are no "legal teeth", if CIMP is looking at how sampling could be incorporated better into the WLWB process. Directors will have a closer look at the data in the next AEMP for certain elements (for instance iron was never on the radar before).

OTHER BUSINESS

Use of Colour Coded Cheques

The Agency's bookkeeper was looking for permission to use the cheques regardless of colour. It was agreed that it is ok to do this.

Canadian Ecotoxicity Workshop: Summary of Relevant Talks

A review of CEW conference in Edmonton October, 2016 was provided. Some topics covered were toxicity testing and behaviour responses, how measures are being implemented post environmental assessment, sampling techniques using slimy sculpin, paleo limnology, calcium loss and jellification of lakes, and fish sampling techniques.

Future Meetings

It was agreed that the March 2017 Board Meeting will be combined with a community visit with NSMA. The Agency will host a community information session and open it up to all

of Yellowknife. Some topics to discuss would be Who We Are and What We Do, and provide an update on the Jay Project.

Action Item #96-6: Jessica will contact NSMA to organize the community visit.

Action Item#96-7: Jessica will send a Doodle Poll to Directors to determine the date of the next meeting.

Community Visit/Annual Report Writing Session:

The Annual Report Writing Session will be combined with a community visit to Kugluktuk in May 2017. Agency staff will begin planning.

Meeting adjourned at 5:05 pm on December 6, 2016.

**Summary of Discussion Approved by
Kim Poole, Secretary Treasurer**
