



Wek'èezhii
Land and Water Board

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REASONS FOR DECISION

Reference/File Number: Water License MV2005L2-0009 (Type "A")

Licensee: Diavik Diamond Mines Inc.

Wek'èezhii Land and Water Board (WLWB)

REASONS FOR DECISION

Issued pursuant to Section 26
of the *Northwest Territories Waters Act*, R.S.C. 1992, c.39

SUMMARY OF DECISION

It is the Board's decision that Diavik Diamond Mines Inc. must complete work on the Aquatic Effects Monitoring Program (AEMP) and Ammonia Management Plan (AMP) in a manner satisfactory to the Board, to ensure that Lac de Gras is protected during the continuation of the DDMI mining operation, prior to the issuance of a renewal licence.

While the Board considers that work on the Abandonment and Restoration Plan (A&R Plan) is also important, it is of the opinion that the terms of the existing and a renewed Water License can ensure that work on the A&R Plan is completed to the Board's satisfaction.

At the conclusion of the public hearing, the Board adjourned to consider and rule on a request made by several parties that no licence be issued until certain issues related to the current water licence have been resolved. The Board grants this adjournment request and will defer the drafting of the renewal water licence at this time. The Board is adjourning the Water License renewal process until work on the AEMP and Ammonia Management Plan is completed. Should a resumption of the public hearing be required, the Board will issue directions accordingly.

The Board will be providing direction and work plans to the Applicant and participants in this proceeding on work required on the AEMP and AMP under separate cover.

BACKGROUND AND REGULATORY HISTORY

On August 8, 2005 Diavik Diamond Mines Inc. (DDMI or the Licensee) applied to the Mackenzie Valley Land and Water Board (MVLWB) for a renewal of Type "A" Water License N7L2-1645 (the License). The renewal application (the Application) is necessary to enable a continuation of the mining and milling of diamonds and associated activities at Lac de Gras which is located approximately 300 kilometers northeast of Yellowknife, NT (Latitude 64° 31' N and Longitude 110° 20' W).

The DDMI Application included a request for exemption from Preliminary Screening under Section 124 of the *Mackenzie Valley Resource Management Act (MVRMA)*. On September 7, 2005 the MVLWB determined that DDMI's request for exemption from preliminary screening satisfied the requirements of the *Exemption List Regulations*. The MVLWB determined that the Water License renewal Application should proceed into the regulatory and licensing process.

On September 9, 2005 the Application was distributed to first nations, communities, government agencies and other organizations in order for parties to have the opportunity to make comments on the Water License renewal Application. Comments were received and reviewed by the MVLWB.

Upon review of the comments, the MVLWB decided to hold Technical Sessions to address concerns raised by reviewers about the DDMI Water License renewal Application. These sessions were held on December 13-15, 2005 in Yellowknife and provided a forum for interested parties to discuss, clarify and, where possible, resolve technical issues related to the proposed renewal of the Diavik Water License.

The following parties participated in the Technical Sessions:

- Diavik Diamond Mines (DDMI)
- Department of Indian and Northern Affairs (INAC)
- Government of Northwest Territories (GNWT)
- Environment Canada (EC)
- Department of Fisheries and Oceans (DFO)
- North Slave Metis Alliance (NSMA)
- Environmental Monitoring Advisory Board (EMAB)
- Lutsel K'e Dene First Nation (LKDFN)
- Tlicho Lands Protection Department
- Kitikmeot Inuit Association (KIA)
- Northwest Territory Metis Nation (NWTMN)
- Yellowknife Dene First Nation (YKDFN)
- Akaitcho Pre-screening Office (APS)

The Technical Sessions were well attended and transcripts were prepared and made available on the Public Registry.

The MVLWB reviewed the outcomes of the Technical Sessions and determined that significant technical issues were still outstanding in relation to the Water License renewal Application and that additional work should be undertaken in order to seek a

resolution of these issues prior to the conduct of a public hearing. This required a change to the work plan which at that time had a public hearing scheduled for March 15-16, 2006. On January 13, 2006 the MVLWB informed DDMI that the public hearing would be adjourned so that more work could be done to investigate and potentially resolve the technical issues. The MVLWB did not set another public hearing date at that time.

On August 4th, 2005, just before the DDMI Application was filed, the *Mackenzie Valley Resource Management Act* (MVRMA) was amended by the *Tlicho Land Claims and Self-Government Act* (the amending legislation).¹ One of the important changes associated with the coming into force of the Tłıchǫ Agreement and the MVRMA amendments was the establishment of the Wek'èezhìi Land and Water Board (WLWB or the Board). Section 95, one of the transitional provisions in the amending legislation, however, delayed the coming in to force of WLWB authority to issue land use permits and water licences for 6 months after August 4th, 2005.

The WLWB assumed its full responsibilities on February 4th, 2006. On February 8th, 2006 the MVLWB determined, pursuant to section 102 of the MVRMA, that the effects of the DDMI mining operations at Lac de Gras were not transboundary; therefore, Water License N7L2-1645 became the jurisdiction of the WLWB and the file was transferred to the new Board. The WLWB informed DDMI of the change in administration and management of the DDMI Water License and the Application on February 13, 2006.

THE WLWB AND THE PRESENT PROCEEDING

In March 2006, the WLWB reviewed the status of the DDMI Water License renewal process and determined that a revised work plan was required to refine the process and associated timelines. The revised work plan was issued by the Board on March 22, 2006. This work plan was developed with the goal of merging on-going work under the Aquatic Effects Monitoring Program (AEMP) and the Ammonia Record of Agreement (Ammonia-RoA) into the Water License renewal process.

The Board directed that work on both the AEMP and Ammonia-RoA should continue to progress in order to contribute to productive discussions at the public hearing. The Board also reminded participants through its work plan that the licensing process should “have regard to the importance of conservation to the well being and way of life of the aboriginal peoples of Canada to whom section 35 of the *Constitution Act, 1982* applies, and who use an area of the Mackenzie Valley”, as required by paragraph 60.1(a) of the MVRMA. The revised work plan scheduled a public hearing of the Application for September 12-14, 2006.

The Board continued to monitor the DDMI Water License renewal process and on-going work on the AEMP and Ammonia-RoA and met on July 13th, 2006 to evaluate progress on these and other matters related to the DDMI Water License renewal. On July 6th, 2006 the Board provided direction on the Ammonia Discussion Paper

¹ S.C. 2005, c.1, in force August 4th, 2005.

submitted under the Ammonia-RoA, and advised that additional work would be required on the Discussion Paper before the Board could provide DDMI with the direction necessary to prepare the Ammonia Management Plan (AMP). The Board noted the importance of submission of an Ammonia Management Plan in advance of the public hearing to allow parties to review the AMP and have productive discussions on the AMP at the hearing. In light of the status of work on the Ammonia-RoA, the Board determined that more time would be required for work on the AMP and the ongoing work on the AEMP. Consequently, the Board amended the work plan and re-scheduled the public hearing to November 7-10, 2006.

Notice of the public hearing was published on August 21 & 28, 2006 in accordance with the requirement of the *Northwest Territories Waters Act*. The Board held a pre-hearing conference on September 29, 2006 to assist potential interveners to better understand the hearing process and provide clarity on the issues to be discussed at the hearing. The deadline for submission of written interventions was set for October 23, 2006. The public hearing was held November 7-10, 2006 in Behchoko, NT, at the Cultural Center.

The following interveners submitted written Interventions:

- Department of Indian and Northern Affairs (INAC)
- Environment Canada (EC)
- Department of Fisheries and Oceans (DFO)
- Tlicho Government
- North Slave Metis Alliance (NSMA)
- Environmental Monitoring Advisory Board (EMAB)
- Lutsel K'e Dene First Nation (LKDFN)
- Deninu Kue First Nation (DKFN)

The Yellowknife Dene First Nation (YKDFN) did not submit a written intervention, but notified the Board that they would be questioning DDMI and interveners and presenting closing remarks to the Board.

The Board also provided opportunities on November 8, 9 & 10 for members of the public to address the Board about the Diavik Application.

All information from this proceeding, including transcripts, has been filed on the WLWB's Public Registry.

THE HEARING

The written and oral submissions made by Interveners outlined a range of issues and concerns in relation to DDMI's Water License renewal Application. However, three main issues of concern were highlighted by almost all of the interveners. These issues pertain to deficiencies identified in relation to three major plans that are requirements of Water License N7L2-1645:

- Aquatic Effects Monitoring Program
- Ammonia Management Plan

- Interim Abandonment and Reclamation Plan (A&R Plan, also referred to as the Interim Closure and Reclamation Plan or ICRP)

Some interveners requested that the Water License not be renewed until the deficiencies in the three plans are addressed and the plans re-submitted to the Board for approval.

Indian and Northern Affairs Canada included the following statement in their closing remarks to the Board:

“So for the Diavik licence we have, as we said yesterday, unfinished business with the current licence. And that work should be completed before a new licence is issued. We should not carry current problems into a new licence, particularly when those problems are both significant and easily resolved. The environmental safety net is incomplete and that must be fixed. In that context, the key issues for us remain the AEMP, ammonia discharge limits, and the closure and reclamation plan (Public Hearing Transcripts, David Livingstone, page 177, November 10, 2006)”.

The written intervention of the Department of Fisheries and Oceans sets their concerns out as follows:

“The outstanding issues with the AEMP should be resolved before the Water License is renewed (Dave Balint, page 10, October 23, 2006). The terms and conditions of the Water License should be reviewed to incorporate requirements for Ammonia Management. As well, an Ammonia Management Plan and outstanding issues related to ammonia management should be resolved before the licence is renewed (DFO written intervention, page 6, October 23, 2006)”.

The Tlicho Government stated the following in their closing remarks to the Board:

“The Tlicho Government submits that you should refuse to grant Diavik’s application now. You should not issue a new licence subject to Diavik fixing problems. You should not even tell Diavik that you will issue them a licence if they will fix their problems....you should refuse to grant the application now, but you should not dismiss it. You should postpone or defer your final decision so as to give Diavik the opportunity to submit ammonia management plans, an AEMP, and an updated abandonment and reclamation plan for approval. And then, as the Grand Chief of the Tlicho said, if they satisfy you on those things then we’ll talk about renewal (Public Hearing Transcripts, Arthur Pape, Page 193, November 10, 2006)”.

The Lutsel K’e Dene First Nation stated as follows in their written intervention:

“In conclusion, the LKDFN does not support the renewal of this Water License until such time as all the deficiencies in the AMP, AEMP and ICRP have been addressed to the satisfaction of all the parties (LKDFN written intervention, Page 14, October 23, 2006)”.

Other interveners and the Applicant recommended that the Water License be issued with changes to the terms and conditions of the Water License to address issues related to the satisfactory completion of these plans.

Environment Canada recommended that the renewal Water License should include conditions to get work on the AEMP, Ammonia-RoA and A&R plan completed. EC’s presentation to the Board stated the following:

“The Ammonia Management Plan (AMP) has been submitted as a final draft, and requires Board approval.....A review timeline and process should be set out as a condition of the renewed water licence, and include subsequent updates (EC power point presentation, slide 4, November 9, 2006)”.

“EC recommends that the licence include a clause setting out time frames and formalizing the consultative process which DDMI has initiated, to develop an effective and rigorous AEMP (EC power point presentation, slide 8, November 9, 2006)”.

“The renewal licence conditions should include timelines for review and approval of the Interim Closure and Reclamation Plan which was submitted to the Board on Sept. 29th, 2006, along with restoration monitoring updates (EC power point presentation, Anne Wilson, slide 14, November 9, 2006)”.

The Environmental Monitoring Advisory Board made many specific recommendations on changes to the Water License related to the AEMP, ammonia issues, and the A&R plan. Some of EMAB’s recommendations from their written intervention are listed below:

“The ammonia discharge limit be set to the original limits of 2mg/l and 4mg/l maximum to demonstrate the intent of the RoA (EMAB written intervention, Schedule 2, October 23, 2006)”.

“A clause providing for varying the ammonia discharge limits as information becomes available. An initial ammonia discharge limit be set for an initial period, say one year, following issuance of the licence, based on DDMI’s predictions of ammonia concentrations (EMAB written intervention, Schedule 2, October 23, 2006)”.

“A process to revise the AEMP so that it can meet the objectives in the water licence (any exemptions to current water licence requirements must be clearly identified by the WLWB and the new licence should be updated to reflect these); the revised AEMP should provide some continuity with previously gathered data while minimizing dependence on DDMI’s baseline data, and to allow for revision of the AEMP where weight of evidence shows a need (EMAB written intervention, page 2, October 23, 2006)”.

“EMAB is recommending that the Board consider amending the licence to require DDMI to prepare a revised AEMP using a similar process as for the Ekati Abandonment and Restoration Plan (EMAB written intervention, Schedule 2, October 23, 2006)”.

The North Slave Metis Alliance made the following statement in their presentation to the Board:

“It would be better to design the wording of the licence to make the submission of satisfactory plans, programs and reports, in a timely manner, enforceable (NSMA PowerPoint presentation, slide 20, November 10, 2006)”.

The Aquatic Effects Monitoring Program

At the public hearing, all interveners identified serious concerns with the original AEMP approved by the MVLWB in 2001 as well as with the revised AEMP submitted by DDMI in May 2006. Many interveners expressed concern that the 2006 AEMP was designed

only as an effluent based program and that DDMI did not design the AEMP to detect project related effects as required by the Water License. DDMI committed at the public hearing that the AEMP will be re-developed so that it is a comprehensive AEMP that can monitor project related effects. DDMI stated the following at the public hearing:

“The water licence states that the scope of the AEMP is effects in the aquatic environment resulting from the project. We will consolidate the relevant aquatic effects monitoring programs of the project on the aquatic environment into one (1) comprehensive AEMP that includes effluent monitoring, dike monitoring, snow quality monitoring, runoff monitoring, traditional knowledge and community monitoring. The appropriate approach is to have monitoring programs designed for each specific effects pathway as we currently have. We acknowledge that the 2006 AEMP should be considered as the effluent monitoring chapter of the AEMP, not as the AEMP itself as we presented in May (Public Hearing Transcripts, Gord MacDonald, page 83-84, November 7, 2006)”.

“With respect to the terms and conditions in Part K, Diavik supports Intervener recommendations that the scope from Part K of the expiring licence be carried forward into the renewed licence; that the licence be updated to reflect work completed and exemptions that have been granted; that the licence enable integration of other monitoring programs to meet the project-related requirements of the licence; that the annual AEMP be for-approval report and there are other terms and conditions as noted in the DDMI response. Diavik also proposes a way forward which, in summary, would involve a comprehensive AEMP with effluent, snow quality, run-off, dikes, and traditional knowledge community monitoring. Immediate work will be to focus on the effluent effects monitoring. DDMI would proceed immediately to prepare a comprehensive AEMP following Board direction on the scope (Public Hearing Transcripts, Gord MacDonald, Page 93-95, November 7, 2006)”.

DDMI suggested that the Board can proceed with the Water License renewal and stated the following in their closing remarks:

“DDMI asks that the Board consider renewing the water licence with a condition that the AEMP be approved with a process and timeline for review and comment so that we can incorporate revisions into a final plan for approval by March 31, 2007. That there be a condition that a process and timeline for a similar review be established for the closure and reclamation plan. We'd ask you to consider a discharge limit of twenty (20) milligrams per litre total ammonia as a daily maximum and a zero point one (0.1) milligram per litre un-ionized ammonia limit. We ask you to consider approval of the Ammonia Management Plan. In conclusion, DDMI has presented the information the Board requires for renewal of the licence...DDMI has responded to the constructive submissions of all Interveners concerning the ammonia management plan, aquatic effects monitoring plan and the closure and reclamation plan, and has proposed a way forward for completing each of these plans through the approval of the Board (Public Hearing Transcripts, Gord MacDonald, page 228, November 10, 2006)”.

Ammonia Issues

While the interveners were in consensus that the AEMP is inadequate, the evidence and submissions regarding ammonia issues were more varied.

The Board heard from several parties that certain issues related to ammonia should be resolved prior to renewing DDMI's licence, although there was no consensus on which ammonia issues should be resolved. As described in the quotes above, the Tlicho Government, DFO and LKDFN argued that the AMP should be revised prior to renewal of the Water Licence. DFO also pointed to “issues related to ammonia management”

but did not specify which issues, while INAC indicated that the ammonia discharge limits should be resolved prior to renewal.

There was also a range of opinions on the adequacy of the AMP. DDMI recommended that the AMP be approved for implementation, and stated that “[n]o other management measures have been recommended by interveners (Public Hearing Transcripts, Gord MacDonald, page 227, November 10, 2006)”.

INAC stated that the AMP “has compiled a rational set of management options for the control of ammonia in effluents”; although they went on to say that:

“DDMI is now more than three (3) years into the ammonia management investigations and still has not committed to implementation of any significant measure, other than additional study and investigation. This lack of firm commitment to action is a serious weakness of the Ammonia Management Plan (Public Hearing Transcripts, David Livingstone, pages 180 and 181)”.

Based on a preliminary review, Environment Canada indicated that “the AMP provides a useful and comprehensive compilation of the relevant information and summarizes plans to move forward (EC Written intervention, page 4, October 23, 2006)”.

Other interveners were not satisfied with the AMP, arguing that there is not enough information to develop an AMP and that DDMI did not identify ammonia management options that would achieve the lowest EQC practical at the site. The Tlicho Government stated that:

“We don't yet have the information we need to determine how well we can minimize loadings to the lake and importantly we don't know what can be practically achieved if a broader range of management options had been considered in the ammonia discussion paper (Public Hearing Transcripts, Don MacDonald, page 299, November 9, 2006)”.

Similarly the LKDFN stated that:

“We don't feel that they [DDMI] have made the best efforts to look at all the available options to achieve those original limits. And we don't believe that we've fully evaluated all the available treatment technologies (Public Hearing Transcripts, Monica Krieger, page 144, November 10, 2006)”.

Several parties suggested the use of outside experts to help resolve issues associated with the AMP. The Tlicho Government presented a detailed plan for moving forward with the AMP, which would require DDMI to prepare supplemental information for approval prior to developing an AMP.

Many parties commented on the close relationship between the AMP and the ammonia EQC, and a variety of suggestions for a final EQC were outlined. DDMI recommended an EQC of 20 mg/L total ammonia for both the maximum average and maximum daily concentrations, based on calculations they performed to determine the level that is protective of Lac de Gras.

INAC proposed an ammonia EQC of 10 mg/L total ammonia for the maximum average concentration and 20 mg/L total ammonia for the maximum daily (grab) concentration. INAC used the same calculations as DDMI to develop their EQC, but argued that in

developing their calculations, DDMI did not use data from the species that is most sensitive to ammonia. During the hearing, Environment Canada and the Tlicho Government agreed with INAC's conclusions. The Tlicho Government proposed that this EQC should be adopted as on an interim basis until the renewed Water License is issued. In their written intervention, the Tlicho Government states that the ammonia EQC should be the original EQC or the lowest levels practically achievable.

The North Slave Metis Alliance state that they are "willing to consider the possibility that a 20mg/l ammonia limit, or some other limit or combination of limits, might be protective to Lac De Gras, but not without consultation (NSMA written intervention, page 5, October 24, 2006)".

EMAB proposes the following approach:

"The ammonia discharge limit be set to the original limits of 2 mg/l average and 4 mg/l maximum to demonstrate the intent of the RoA. A clause providing for varying the ammonia discharge limits as information becomes available. An initial ammonia discharge limit be set for an initial period, say one year, following issuance of the licence, based on DDMI's predictions of ammonia concentrations (table 6.2-4 of the ADP) and any additional relevant information (page 4 of EMAB's written intervention)".

Similarly, the LKDFN stated that:

"We strongly disagree with maintaining the current limits of 20 mg/L NH₃-N. The Record of Agreement (RoA) was completed in 2004 with a single goal in mind, to better understand the mechanisms by which ammonia was entering the system and to come up with solutions whereby the original effluent quality criteria (EQC) limits of 2 mg/L average and 4 mg/L maximum could be achieved (LKDFN Written Intervention, page 3, October 23, 2006)."

Abandonment and Reclamation

Some interveners also identified deficiencies with the A&R Plan as a major concern in relation to the Water License renewal. The Tlicho Government and LKDFN both stated that deficiencies with the A&R plan should be addressed before the Water License renewal proceeds. DDMI submitted an updated ICRP to the Board on September 29, 2006 but most interveners stated that they did not have enough time to review the ICRP in advance of the public hearing. Other interveners recommended that the Board define and establish a process to work through issues regarding the A&R Plan and set this out in the Water License conditions. Intervenors also noted that the updated A&R Plan should be developed in consultation with communities and aboriginal groups, and include applicable traditional knowledge, as stated in the Diavik Environmental Agreement.

The Board understands that addressing deficiencies noted by reviewers on the A&R Plan is important as the mining activity continues at the Diavik site. With the exception of the Tlicho Government evidence, however, there was little detail provided in the interventions to assist the Board in deciding exactly what needs to be done to revise the A&R Plan. INAC for example, did not have enough time to prepare and file its comments on the plan or to provide a review of the appropriateness of current security held for the DDMI operation. The absence of sufficient evidence to provide a foundation for directions on revisions to the A&R Plan is a matter of concern for the Board.

DECISION

The Board has carefully reviewed and considered the Application, the evidence submitted by DDMI and the interveners and has determined that significant work is required on the AEMP and the AMP in the short-term future, and before the drafting of a new licence.

Aquatic Effects Monitoring Program

Many deficiencies in the AEMP have been identified by reviewers since the original AEMP was approved in 2001 and implemented by DDMI. Additional technical problems were identified over time with the AEMP and ultimately, fundamental questions were raised about the ability of the AEMP to meet the objectives set out in the current Water License. The evidence shows that DDMI was well aware of these deficiencies but refused to address them, relying on the AEMP approved by the MVLWB in 2001. During the Technical Sessions held by the MVLWB in December 2005, many reviewers expressed serious concern regarding performance of the AEMP and stated that the AEMP should be re-designed in the near future. Although DDMI acknowledged that the AEMP had problems, they would not agree to re-design the AEM program. The following excerpt is from the technical sessions:

“Earlier today, Gord, Tony asked you the question whether you thought it was necessary to initiate a process of redesigning the AEMP from basic principles, and you said, no, you didn't think it was necessary. And I'm just wondering if your opinion has changed at all in light of all the numerous issues that have been brought up as deficiencies of the current AEMP? (Technical Session transcripts, Kathy Racher DIAND, page 216, December 14, 2005)”.

Gord MacDonald with Diavik. I don't think I've heard anything that we haven't heard before and I still support the process of going down and analyzing. Let the data speak; let the program speak for itself. And do the analysis and if that's what it indicates then that's the right way to go (Technical Session transcripts, Gord MacDonald DDMI, page 217, December 14, 2005)”.

The Board is of the view that the AEMP must be a primary component of an adaptive management approach which measures changes (if any) resulting in the aquatic environment from activities at the DDMI mine site and contributes to management and mitigation choices which address such changes. Given the range of regulatory, aboriginal and public interest in the management of Lac de Gras, the Board considered a collaborative approach to the development of a final AEMP to be necessary. On March 22, 2006 the Board issued a directive to DDMI on the AEMP which required DDMI to submit a new AEMP design report to the Board by May 31, 2006. That directive contained specific technical direction on the preparation of the revised AEMP, and the directive also stated that DDMI should develop the new AEMP design report in consultation with reviewers. DDMI did not follow this direction and prepared an AEMP without consulting with reviewers and submitted it to the Board early on May 1st, 2006.

The Board held an AEMP workshop on August 9-10, 2006 to review the Diavik 2006 AEMP submission and allow reviewers to openly discuss their questions and concerns at a technical level. Many reviewers were concerned that the 2006 AEMP was designed only as an effluent based program and was not designed to monitor project related effects as required by the Water License. The Board reviewed the outcomes of the workshop and determined that fundamental differences regarding the purpose and scope of the AEMP were outstanding and should be addressed at the public hearing.

Progress in re-developing the AEMP has not been satisfactory to the Board. It is the Board's opinion that if DDMI had worked more collaboratively with reviewers on developing the 2006 AEMP that many of the problems identified could have been resolved and incorporated into a comprehensive 2006 AEMP submission.

It appears nonetheless that DDMI and the parties to this proceeding are very close to a consensus on the general approach which should be adopted to revising the AEMP. This work is of very high priority and its completion will require a commitment from the Board and its staff. Proceeding with the Water License renewal at this time could detract from the Board's capacity to supervise and manage this work. In the Board's view, the issues related to the AEMP are urgent and of such importance that it is imperative that the AEMP is re-developed to the Board's satisfaction and for approval before the Water License renewal proceeds.

The Board will provide direction on the work required to re-develop the AEMP. The Board wishes to stress that reviewers must be actively involved in this work. The Board will set out a work schedule in advance so that reviewers can plan their participation and input going forward.

Ammonia Issues

The Board recognizes that the ammonia EQC provides the basis for the Ammonia Management Plan. The Board notes that it advised DDMI (August 31, 2006 letter to DDMI) that the final ammonia EQC will be the original EQC (2 mg/L and 4 mg/L total ammonia) as required by the Water License or the lowest value for the EQC that is practical at the site. In the Record of Agreement, DDMI clearly committed to achieving the original EQC or the lowest EQC practical at the site, and numerous interventions reiterated that this was the expected result of the Record of Agreement negotiated and agreed to by DDMI. The MVLWB Reasons for Decision for the amended licence (May 17, 2004), clearly document that DDMI committed to achieving the original EQC or the lowest EQC practical at the site. The Board was not provided with any compelling evidence that this requirement should be amended.

The evidence advanced by DDMI in this proceeding indicating that an EQC of 20 mg/L total ammonia for both the maximum average and maximum daily concentrations will be protective of the environment was contested by a number of parties. The Board is of the view that to protect the unique and pristine environment of Lac de Gras an Ammonia Management Plan should seek to achieve the original EQC or the lowest EQC that is practical at the site. This approach is consistent with that taken in the Comprehensive Study Report for the DDMI project, the original water licence and the Ammonia RoA.

At the moment, it remains unclear what the lowest EQC practical at the site may be and therefore the Board is unable to determine whether the current AMP will achieve the right level. To ensure that the Board has the best information possible to make this important decision, the Board will enlist a panel of experts to review the AMP. This will also fulfill the Board's requirement to commission a review of the AMP from an independent qualified expert (Item 16.3 of the RoA).

The EQC for ammonia is currently 20 mg/L with a requirement that DDMI must adjust pH to ensure unionized ammonia remains below 0.1 mg/L. This EQC is in effect until February 1, 2007, when the Board will set an EQC based on the best information available at that time.

On February 1, 2007, the EQC will be set at the original EQC or the lowest EQC practical at the site, based on the information available to make this determination. To set the EQC on February 1, 2007, the Board will consider evidence presented at the hearing and any new information acquired after the hearing (i.e., information collected during the post-hearing process and under the current water licence). If the Board determines at that time that not enough information is available to determine the lowest practical EQC, an interim EQC, that is based on what the Board considers is protective of Lac de Gras, may be set.

Other ammonia issues (e.g., round whitefish toxicity testing, *Hyalella azteca* toxicity testing, etc.) were also discussed at the hearing, but were not proposed to serve as conditions in the renewal of the DDMI water licence. The Board will not be addressing these issues until a renewed licence is drafted. These issues can largely be addressed through the ongoing management of DDMI's current water licence, and if necessary in a renewed water licence.

The Board considers the resolution of the outstanding issues on the Ammonia Management Plan to be of fundamental importance and will provide direction on the work required to re-develop the AMP. As with the work required to re-develop the AEMP the Board wishes to stress that reviewers must be actively involved in this work. The Board will also set out a work schedule in advance so that reviewers can plan their participation and input going forward.

Abandonment and Reclamation

In the Board's view, work on the A&R Plan is no less important than the AEMP and AMP but work on the A&R Plan is less time sensitive and can be dealt with through the terms and conditions of the existing water licence or the terms of a renewal licence.

CONCLUSION

It is the Board's opinion that proceeding with the Water License renewal at this time could detract from the effort necessary to ensure that the AEMP and AMP are completed to the Board's satisfaction and in a timely manner.

In any application for a water licence or a renewal, the onus is on the applicant to convince the Board that a licence can be issued on the terms requested. In this case, the Applicant has not yet provided the Board with evidence sufficient to satisfy the requirements of section 16(2) of the *Northwest Territories Waters Act*. To achieve this end, the Board requires a revised AEMP and AMP. That work can be done in the short term future under Board direction before the current licence expires.

The Board understands the significant importance of Lac de Gras and that protection and conservation of Lac de Gras is vital to preserving the well being and way of life for the aboriginal people of this region. The Board believes that ensuring that the required work is completed before the Water License renewal process is completed will contribute to the protection of Lac de Gras and the environment in the short term and into the future.

It is important for all parties to this proceeding to understand that the Board is committed to getting the required work done in a timely fashion so that the Water License renewal process can be completed before the current Water License expires in August 2007. The Board acknowledges the burden that will be placed upon DDMI and all parties and asks that every effort be made to ensure that the appropriate expertise is available and involved in the process.

At the public hearing, many elders and interveners stated that DDMI, the Board and all parties need to work co-operatively to ensure the project is being operated in a manner that protects the environment. It is crucial that this commitment to co-operation be carried forward so that DDMI and all parties can ensure that the goals of the MVRMA and the Tlicho Agreement are being met.

Signed on behalf of the WLWB:

December 4, 2006

Date

Original signed by

Violet Camsell-Blondin, Interim Chair