

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Manitoba Aboriginal & Northern Affairs
PROPOSAL NAME: Granville Lake – Wastewater Treatment Lagoon
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon
CLIENT FILE NO.: 5008.00

OVERVIEW:

On January 29, 2004, a proposal pursuant to The Environment Act was filed on behalf of the Manitoba Aboriginal and Northern Affairs for the construction and operation of a wastewater treatment lagoon that will serve the Community of Granville Lake and will be located in NE Section 28 - 83 - 20WPM. Treated wastewater from the wastewater treatment lagoon will be discharged between June 15th and November 1st of any year to a natural drainage channel that includes a marsh area and flows into Granville Lake. Existing sludge disposal pits currently serving the Community of Granville Lake will be decommissioned once the wastewater treatment lagoon is commissioned.

The Proposal and supporting documentation, prepared by Stantec Consulting Ltd., indicate that suitable soils are available at the site for the construction of a standard lagoon. The proposed lagoon design indicates that a minimum clay type soil liner of 1.0 metre thickness will be provided for the entire lagoon and that the dykes and lagoon floor will be constructed entirely of clay.

The Department, on February 2, 2004, placed copies of the EAP report in the Public Registries located at 123 Main St. (Union Station); the Manitoba Eco-Network, the Thompson Public Library and the Town of Leaf Rapids and provided copies of the EAP report to the Canadian Environmental Assessment Agency (CEAA), the Clean Environment Commission, and TAC members. As well, the Department placed public notifications of the EAP in the Thompson Nickel Belt News on Monday, February 9, 2004. The newspaper and TAC notifications invited responses until February 20, 2004.

On March 2, 2004, Manitoba Conservation forwarded comments that had been received from the TAC members to the proponent and to the appropriate Public Registries. No comments were received from the public. Additional information that would address the concerns presented in the comments was requested from the proponent.

On March 25, 2004 and April 14, 2004, the consultant submitted a response to the requests for additional information to Manitoba Conservation.

On April 20, 2004, Manitoba Conservation distributed the response to the TAC members from which the comments and requests for additional information had originated. No further comments were received from the TAC.

On April 20, 2004, the consultant submitted a letter to Manitoba Conservation requesting permission to proceed with the lagoon site clearing and grubbing work prior to obtaining an Environment Act Licence.

On April 27, 2004, Manitoba Conservation responded to the request indicating that once confirmation (from Manitoba Lands Branch) that the land is available for the proposed development can be provided, consideration to authorizing such activities by providing a Preliminary Steps Environment Act Licence could be provided.

On July 8, 2004, the Lands Branch of Manitoba Conservation provided an indication that the subject lands are reserved from any further disposition pending formal approval of the order-in-council to formally set aside the lands for this development. That Branch also advised Aboriginal and Northern Affairs to proceed to obtain the Environment Act Licence from Environmental Approvals Branch.

COMMENTS FROM THE PUBLIC:

There were no comments from the public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture, Food and Rural Initiatives

- *No concerns provided that the lagoon construction and quality of effluent to be discharged into the natural drainage channel that empties into Granville Lake meet criteria and limits set by Manitoba Conservation.*

Disposition:

- The Licence contains Clauses that set requirements for lagoon construction and effluent quality.

Historic Resources

- *I have reviewed the above-noted application for an Environment Act License. The Historic Resources Branch has concerns with regard to this project's potential to impact heritage resources;*
- *A significant archaeological site is located within the project area. Granville Lake House was a Hudson's Bay Company post from the 1794 era. Remains of*

the house are located in Leslie Baker's yard, and other associated artifacts are expected throughout the community. Fur trade posts were often located on previously occupied sites. Trenching activities may disturb evidence of these earlier occupations. It is recommended that an archaeologist from the Historic Resources Branch be on site to monitor any trenching for water lines in the community;

- The area of the proposed wastewater lagoon is of lower potential to contain heritage resources. It is recommended that excavation of the lagoon proceed as scheduled. HRB staff will examine the lagoon location while in Granville Lake to monitor the water line trenching; and*
- The proponent must contact the Historic Resources Branch in order to arrange a mutually acceptable heritage resource management strategy.*

Response from Proponent:

- The Historic Resources Branch has identified a significant archaeological site within the community of Granville Lake. The focus of the site is located in Leslie Baker's yard and does not appear to be in an area impacted by the project. The piping within the community is proposed to follow the alignment of the existing piping (disturbed area) with the exception of several localized areas where it will deviate into not previously trenched (undisturbed) areas;
- To mitigate the archaeological concerns a heritage resource management strategy has been developed in cooperation with Gordon Hill of the Historic Resources Branch. This plan provides for an archaeologist from the Branch to undertake a surficial review of the proposed piping alignment prior to any clearing, grubbing or excavation taking place and to remain on site during the excavation of the piping through the community; and
- Manitoba Aboriginal and Northern Affairs (MANA) have applied to the Manitoba Lands Branch for the property on which the lagoon is to be constructed. The Lands Branch confirmed that this land is part of a Treaty Land Entitlement claimed by the Mathias Colomb Cree Nation. This claim includes the entire community and surrounding area. The residents of the community are part of the Mathias Colomb Cree Nation and the local Head Man, Leslie Baker, has been very involved in the site selection and design process. MANA and Leslie Baker are currently in the process of obtaining a Band Council Resolution from the Cree Nation to facilitate the transfer of the lagoon site and piping alignments to MANA. It is reported that a very similar transfer of land from the Treaty Land Entitlement was required for roadwork associated with Granville Lake and this paper work was completed within a week. The schedule is to have these documents completed and signed by early next week.

Disposition:

- The draft Environment Act Licence contains a Clause that requires that the Licencee notify the Manitoba Historic Resource Branch not less than three weeks prior to

beginning construction of the Development. The notification must include the intended starting date of construction of related components of the Development;

- The Lands Branch of Manitoba Conservation provided an indication that the subject lands are reserved from any further disposition pending formal approval of the order-in-council to formally set aside the lands for this development.

Sustainable Resource Management Branch

- *It is not clear from the proposal where the lagoon effluent will reach the lake. The point of discharge to the lake needs to be evaluated in terms of the potential for the effluent to impact water being withdrawn from the lake for drinking water purposes. Although the drinking water would be treated, it is prudent to ensure that a multi-barrier approach be in place in the event of a water treatment plant failure. The point of discharge should also be evaluated in terms of the potential to impact any recreational/swimming areas near the community;*
- *The proponent has not attempted to assess what impact nitrogen and phosphorus loadings may have to the eutrophic status of the lake. Considering the small size of the community and the relatively large size of the lake, it is unlikely that the discharge will have a significant impact on the nutrient status of the lake. However, the discharge should not occur in a small bay, where the impact of the discharge may be more significant;*
- *It is recommended that the effluent be discharged to an area that will minimize or eliminate effluent reaching Granville Lake. The point of discharge to the lake should be to an area that will not impact the raw drinking water supply or any recreational area;*
- *It is possible that the failed septic systems may continue to pose risk to the drinking water supply for the community as they continue to leach to the lake;*
- *During construction of the road and lagoons, erosion control practices should be in place to minimize the amount of sediment entering the marsh area. It would be beneficial if the proposed culverts were installed following the recommendations of the Stream Crossing Guidelines;*
- *The storage capacity of calculation for the lagoon does not take precipitation, in the form of the amount of snow accumulating inside of the cells over the winter, into account. This could have the effect of significantly reducing the available freeboard. Cell sizing should be re-evaluated taking precipitation into account; and*
- *The proponent should actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director, for Granville Lake, and associated waterways and watersheds.*

Response from Proponent:

- The community of Granville Lake is located on a long point of land at the south end of Granville Lake closer to where the Churchill River enters the lake. The lagoon effluent will reach Granville Lake midpoint in Muskwa Bay. The effluent enters on the south side of the point of land that the community is situated on and the community water intake is located on the north side. The effluent discharge point is about 3.5 kilometers away from the water intake. Flow from the Churchill River is westward past the community water intake and will prevent any influence of the water intake from the lagoon discharge;

A small creek flows into the end of Muskwa Bay and flow from the relatively large Laurie River enters Muskwa Bay just southwest of the effluent discharge point. Combined these two flows should result in a regular flush of any nutrient buildup from the bay out into Granville Lake and the Churchill River.

The community beach/recreation area is reported to be upstream of the water intake, on the other side of the point of land from the effluent discharge location;

- The contract documents require that the contractor control site drainage during construction to prevent the discharge of unacceptable levels of silt to water bodies and that all work be done in accordance with applicable Provincial Regulations with respect to both air and water pollution control requirements; and
- The storage capacity of the Granville Lake lagoon has been designed in accordance with Manitoba Conservation's requirements for lagoon design. These requirements take into account the effects of precipitation on storage and include a very generous 0.9 m freeboard allowance. As such the lagoon cell size does not need to be re-evaluated.

Disposition:

- The draft Environment Act Licence contains a Clause that requires that the Licencee comply with the provisions of the Department of Fisheries and Oceans Canada/Manitoba Natural Resources publication, "Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat" (May, 1996).
- The draft Environment Act Licence contains clauses that require the construction of a liner to an elevation of 2.5 metres above the bottoms of the lagoon cells and a maximum liquid depth of 1.5 metres thereby providing a freeboard of 1 metre.
- The draft Environment Act Licence contains a Clause that requires that the Licencee actively participate in any future watershed based management study, plan/or nutrient reduction program approved by the Director, for Granville Lake and associated waterways and watersheds.

Intergovernmental Affairs and Trade

- *No concerns.*

Office of Drinking Water

- *The Office of Drinking Water submits its comments regarding the following:*
 - *The discharge route of the effluent from the proposed wastewater treatment lagoon is not clearly demarcated on the site plan;*
 - *Similarly the entry point of the effluent to Granville Lake is not clearly demarcated;*
 - *Under Section 1.0 Introduction, the Report indicates the data for test holes are included in Appendix B of the Report. However Section 4.0 of the Report Geotechnical Investigation indicates the test hole logs are provided in Appendix A of the Report. This apparent discrepancy should be corrected;*
 - *A perusal of Appendix A indicates only 3 sheets of 11 sheets are included in the Report received by the Office of Drinking Water. The test hole logs are not shown on the three sheets received;*
 - *The environmental impact assessment of the proposal is significantly deficient in the description of the development, the potential impacts of the development on the surrounding environment and a description of the proposed environmental practices to be employed to prevent or mitigate adverse implications which have been identified;*
 - *As a matter of fact, Section 6.0 of the Report indicates a Draft Environmental Assessment and Screening Report are currently being made; and*
 - *Page 6 of Section 2.5 of the Report does not indicate how the sludge pits will be decommissioned and the site returned to its natural state.*
- *In general, these observations/concerns merit a satisfactory response from the Proponent to facilitate an adequate evaluation of the Proposal for licencing purposes.*

Response from Proponent:

- The community of Granville Lake is located on a long point of land at the south end of Granville Lake closer to where the Churchill River enters the lake. The lagoon effluent will reach Granville Lake midpoint in Muskwa Bay. The effluent enters on the south side of the point of land that the community is situated on and the community water intake is located on the north side. The effluent discharge point is about 3.5 kilometers away from the water intake. Flow from the Churchill River is westward past the community water intake and will prevent any influence of the water intake from the lagoon discharge;

A small creek flows into the end of Muskwa Bay and flow from the relatively large Laurie River enters Muskwa Bay just southwest of the effluent discharge point. Combined these two flows should result in a regular flush of any nutrient buildup from the bay out into Granville Lake and the Churchill River.

The community beach/recreation area is reported to be upstream of the water intake, on the other side of the point of land from the effluent discharge location;

- The comments from the Office of Drinking Water contain a general statement that the environmental impact assessment of the proposal is significantly deficient and refers to a statement in the Appendix A (Pre-Design Report) that a Draft Environmental Assessment and Screening Report are currently being prepared. In fact the Environmental Licence (proposal) contains the information that was being prepared at the time of the Pre-Design Report. No further information is being prepared;

The environmental information provided in the Proposal for an Environmental Licence is thorough and appropriate for the proposed project. It is our position that the information supplied meets or exceeds industry standards for this type of project. Our position appears to be supported by the other agencies that are directly responsible for the review of the environmental information, as they have not requested any additional information.

- The report does not include a definition of how the existing sludge pits will be decommissioned. However, this is defined in the construction contract documents.

Disposition:

- The Licence contains clauses that set specifications, limits, terms and conditions as well as monitoring and reporting requirements that are applied to all Licenced, standard wastewater treatment lagoons; and
- The Licence contains clauses specific to decommissioning the sludge pit.

Transportation and Government Services

- *No concerns.*

COMMENTS FROM FEDERAL REPRESENTATION:

Canadian Environmental Assessment Agency

- *The CEAA response indicates that application of The Canadian Environmental Assessment Act with respect to this proposal will not be required. Environment Canada and Health Canada and Fisheries & Oceans Canada would be able to provide specialist advice. In addition, Health Canada determined that it has an interest in the project and would like to participate in the provincial review.*

Disposition:

- All new information and correspondences were shared with the contacts to ensure that the environmental assessment activities could be coordinated.

Health Canada

- *The watermain, forcemain and low pressure sewers will be placed in a common trench to minimize costs. The document should include any potential health/environmental impacts of placing the lines in a common trench and provide mitigatory measures for those impacts.*

Response from Proponent:

- This is common practice in small communities and does not pose any different environmental impacts than a separate trench installation. The common trench installation does not pose any health impacts during normal operation as the water distribution system is under pressure and in the event of a leak would be forcing water out of the pipe, not allowing leakage in. However, during repair of water main breaks there is an increased health risk associated with common trench piping related to the potential of leaked sewage entering the broken pipe during the repair when the water pressure is turned off. This potential risk is mitigated by placing the invert of the water main 200 mm above the invert of the sewer main and by requiring the water main to be disinfected following the repair work.

PUBLIC HEARING:

A public hearing was not requested.

RECOMMENDATION:

An Environment Act Licence be issued in accordance with the attached draft. Enforcement of the Licence should be assigned to the Approvals Branch until the soil testing has been completed.

PREPARED BY:

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July 12, 2004

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