

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT:	R. M. of Killarney – Turtle Mountain
PROPOSAL NAME:	R.M. of Killarney – Turtle Mountain Wastewater Treatment Lagoon Expansion
CLASS OF DEVELOPMENT:	2
TYPE OF DEVELOPMENT:	Waste/Scrap Wastewater Treatment Lagoons
CLIENT FILE NO.:	4030.10

OVERVIEW:

On June 4, 2009, the Department received a Proposal from Genivar on behalf of the Rural Municipality of Killarney – Turtle Mountain for the expansion and operation of the existing wastewater treatment lagoon located in S 34-2-17WPM in the R.M. of Killarney – Turtle Mountain. The treated wastewater from the wastewater treatment lagoon will be discharged between June 15th and October 31st of any year into Long River which drains into Badger Creek.

The Department, on July 6, 2009, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Millennium Public Library, the Manitoba Eco-Network, and the Lakeland Regional Library. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. The Department placed a public notification of the Proposal in The Killarney Guide on Friday, July 10, 2009. The newspaper and TAC notifications invited responses until July 29, 2009. On August 13, 2009, TAC comments were forwarded to the consultant for response. On August 31, 2009, a response from the consultant was received and was forwarded to the TAC members who had requested additional information on September 9, 2009. On January 20, 2010, the draft Licence was forwarded to TAC members for review with comments to be submitted by February 4, 2010.

COMMENTS FROM THE PUBLIC:

No responses were received from the public notification.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture, Food and Rural Initiatives

- *No comments received.*

Conservation – Wildlife and Ecosystem Protection Branch

- *No concerns.*

Conservation – Parks and Natural Areas Branch

- *No concerns.*

Conservation - Sustainable Resource & Policy Management

- *No concerns.*

Conservation – Environmental Services

- The description of construction detail on page 20 indicates a clay core of 2 m wide keyed for 0.8 to 1.5m into the low plastic clay. However the preliminary drawing detail C02 indicates a 3m wide clay core keyed only 0.3m into the underlying low plastic clay.
- It is stated in the project description that the final surface area of the new primary cell at a depth of 1.5m will be 4.5 ha. This is about 0.88 ha (8800m²) larger than the existing primary cell at 1.5 m liquid level. However the surface area calculated from the dimensions provided on the detail drawing C02 does not match with the anticipated expansion surface area.

Proponent Response (received August 31, 2009):

- As can be seen from the Genivar Geotechnical Report testhole logs TH1-TH5 attached to the EAP, the cohesive material found on the site is located at an approximate depth between 0.8 and 1.5 metres. The existing primary cell was built with a 3 metre wide clay core. The preliminary drawing detail C02 indicates a 3 metre wide clay core keyed 0.3 m (minimum) into the underlying low plastic clay. A 1 metre wide clay core is a minimum requirement; the Genivar Geotechnical Report recommended a 2 metre wide clay core (minimum) for this project. From discussions with contractors, the size of a vertical clay core is typically 3 metres as construction equipment utilizes a 3 metre width.
- According to the Manitoba Conservation guideline, a primary treatment cell requires one hectare of liquid surface area per 56 kg-BOD₅ daily loading. It is stated in the project description that the existing lagoon was designed for a daily organic loading of 204 kg-BOD₅, which requires approximately 3.6 hectares of surface area at a liquid level of 1.5 m. Dimensions referenced from the Dillon Consulting Engineering drawing and our survey data showed that the existing primary cell has a surface area of approximately 3.79 hectares at a liquid level of 1.5 m. With an expansion of approximately 0.73 hectares the new primary cell will have approximately 4.52 hectares of surface area at a liquid level of 1.5 m, suitable for treating approximately 253 kg-BOD₅/d, which is greater than the 250.6 kg-BOD₅/d required.

Disposition:

No further comments were received from Environmental Services. This was assumed to indicate that the original concerns submitted were satisfied.

Science, Technology, Energy and Mines – Mines Branch

- *No concerns.*

Culture, Heritage and Tourism - Historic Resources

- *No concerns. However, if at any time significant heritage resources are recorded in association with these lands during development, the Historic Resources Branch may*

require that an acceptable heritage resource management strategy be implemented by the developer to mitigate the effects of development on the heritage resources.

Water Stewardship

- *The Water Rights Act indicates that no person shall control water or construct, establish or maintain any “water control works” unless he or she holds a valid licence to do so. “Water control works” are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or directly of flow of water, including but not limited to water in a water body, by any means, including drainage. If a proposal advocated any of the aforementioned activities, an application for a Water Rights Licence to Construct Water Control Works is required. Application forms are available from any office of Manitoba Water Stewardship.*
- *The proponent needs to be informed that if the proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.*
- *The Lake Winnipeg Stewardship Board has recommended that all small wastewater treatment facilities, including municipal lagoons, should meet a phosphorus limit of 1.0 mg/L. The proposed phosphorus limit of 1.0 mg/L is consistent with efforts underway across Manitoba and in upstream jurisdictions to reduce nutrient loads to Lake Winnipeg and its watershed. In the Lake Winnipeg Stewardship Board’s December 2006 report to the Minister of Water Stewardship, the Board provides several strategies on how nutrient reduction could be achieved for small wastewater treatment facilities (see recommendations 14-20) including effluent irrigation.*
- *The discharge periods should be lengthened to at least two (2) weeks or more.*
- *The Department is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water.*
 - *Manitoba Water Stewardship recommends that an Environment Act Licence require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director, Water Science and Management Branch, Manitoba Water Stewardship.*

Proponent Response (received August 31, 2009):

- *Activities involved in the expansion of the existing lagoon are not expected to trigger an application for a water rights licence to Construct Water Control Works.*
- *The contractor will be required to implement appropriate sediment and erosion control measures where deemed necessary. All disturbed areas are generally reseeded at the end of the project. Any areas noted to be prone to erosion are typically armoured with rip rap.*
- *Any nutrient mitigation will be carried out as required by Manitoba Conservation. We are still waiting for the public consultation stage of the proposal to implement the phosphorus limitation of 1 mg/L. Implementation prior to its full adoption is premature.*

- The expansion of the existing lagoon will not affect the existing storage cells and discharge route for the lagoon will remain the same. The discharge period could be lengthened by throttling the discharge valve.
- Based on the existing discharge route, which discharges to the old lagoon, the need for future restrictions placed on the discharge period seems unnecessary.
- Any party involved in a future watershed based management study, plan/or nutrient reduction program for the area is welcome to contact the Municipality of Killarney – Turtle Mountain.

Water Stewardship Response (September 18, 2009):

- *Manitoba Water Stewardship continues to recommend discharge is lengthened to two (2) weeks.*

Disposition:

A lengthened discharge period, where possible, is included in the draft Licence (Clause 23).

Infrastructure and Transportation

- *No concerns with the proposed project.*

Intergovernmental Affairs

- *The expansion of the primary cell at the existing lagoon is a relatively modest change in the facility footprint.*
- *Existing development in the area will not experience significant changes in operations or odours from the expansion.*
- *Additional capacity in the lagoon is needed to reflect current populations: year-round population is about 2200 and seasonal population (campers) adds another 1500 people using the sewage system in the summer months.*
- *Planning by-laws indicate that agricultural type land uses are expected on these lands adjacent to the Town and the local Zoning By-law provides for public facilities such as the sewage lagoon to be approved by Council.*
- *We have reviewed the proposed development and have identified no land-use planning concerns with the proposed lagoon expansion.*

Intergovernmental Affairs Response (September 8, 2009):

- *Community Planning Services has no further concerns with this proposal.*

Canadian Environmental Assessment Agency

- *Following a review by all federal departments with a potential interest in the proposed development, the application of the CEAA will not be required.*

PUBLIC HEARING:

A public hearing was not requested and is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the expansion and operation of the wastewater treatment lagoon in accordance with the specifications, limits, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Assessment and Licensing Branch until the liner testing has been completed and the Development is commissioned.

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