

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Rural Municipality of Hanover  
**NAME OF DEVELOPMENT:** Grunthal Wastewater Treatment Lagoon  
Expansion  
**CLASS OF DEVELOPMENT:** Two  
**TYPE OF DEVELOPMENT:** Wastewater Treatment Lagoon  
**CLIENT FILE NO.:** 935.20

### **OVERVIEW:**

The Proposal was received on February 2, 2011. It was dated January 11, 2011. The advertisement of the proposal was as follows:

“A Proposal has been filed by GENIVAR on behalf of the Rural Municipality of Hanover for the construction and operation of an expanded wastewater treatment lagoon system to service the village of Grunthal. Existing wastewater treatment facilities for the village would remain in operation, with all existing cells used as secondary cells to store partially treated wastewater. Three new aerated primary treatment cells would be constructed north of the existing facility in NW 20-5-5E, and a new secondary cell would be constructed immediately east of the existing facility. The facility would treat wastewater from the village of Grunthal, some truck hauled wastewater from surrounding rural residences, and wastewater from the Parmalat Canada Medo-Land Dairy Products plant in the village. Treated effluent from the facility would be discharged to Sarto Creek, which flows to Joubert Creek and the Rat River. Discharges would occur during the period June 15 to October 31. Construction of the facility is proposed for the summer and fall of 2011.”

The Proposal was advertised in the Steinbach Carillon on Thursday, May 26, 2011. It was placed in the Main, Millennium Public Library (Winnipeg), Eco-Network and Jake Epp Public Library (Steinbach) public registries. The Proposal was distributed to TAC members on May 26, 2011. The closing date for comments from members of the public and TAC members was June 26, 2011.

### **COMMENTS FROM THE PUBLIC:**

No public comments were received.

### **COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE (TAC)**

**Manitoba Conservation – Sustainable Resource and Policy Management Branch  
and Land Programs Branch** No concerns.

**Manitoba Conservation – Parks and Natural Areas Branch**

No comments.

**Manitoba Conservation – Wildlife and Ecosystem Protection Branch**

No concerns.

**Manitoba Conservation – Air Quality Management**

No comments.

**Manitoba Conservation - Environmental Services Branch**

1. Recommend that the minimum compaction pressure for any compaction equipment be consistent with other programs under the Environment Act & regulations with a minimum contact pressure of at least 2400 kPa – currently listed as 700 kPa in the proposal.
2. Recommend that supporting documentation for the influent strength and volumes be provided for the cheese plant wastes be required (ie historic flows and organic loading samples). Referenced influent strength and volumes are for a 1994 agreement, with no indication of changes taken into consideration during the lifespan of this wastewater treatment facility.
3. Request confirmation that there are no other wet industries contributing to the organic loading of the wastewater stabilization pond.
4. Recommend that any deficiencies (ie slumping, cracking, erosion, installation of erosion protection, liner integrity assessment, etc) of the existing facility cells are addressed at the time of the change in elevation and conversion of the cells to secondary cells.
5. Request additional information with regards to the proposed dewatering to allow for construction on site, and a topographical elevation map indicating grade lines in relation to the proposed development.

**Disposition:**

Item 1 was provided to the proponent's consultant for information. Items 2 and 3 were discussed in the proposal; no changes are anticipated to the industrial loading over the design life of the facility. Item 4 will be addressed at the time of the inspection of new liner components. With respect to Item 5, the floor elevation of the new secondary cell is at the existing ground elevation, so gravity drainage to the existing road ditch will be possible. Pumping will be required to dewater the site of the new primary cells.

**Manitoba Conservation – Environmental Operations Branch**

As per section 5.1 of the proposal *the property is located in a groundwater pollution hazard area*. During the expansion of the facility in 1995 concerns were expressed with the status of the liner and the associated geology of the area. Continued use of the original two cell lagoon in 1995 was contingent upon completion of groundwater monitoring program as per Clause 6 of License 1940RR. It has been brought to our attention the original two cell lagoon was continually used over the past several years without

groundwater monitoring as required by the license, or determining the status of liner on the lagoon cells constructed in 1974.

Manitoba Conservation Regional Operations notes the proposal includes continual use of the original two cell lagoon constructed in 1974. Therefore, if the original two cell lagoon constructed in 1974 is to be used as proposed, then evaluation of the hydraulic conductivity of the interior 1.0 meter of soil lining should be completed.

Disposition:

This comment can be addressed through licence conditions.

### **Manitoba Water Stewardship**

Manitoba Water Stewardship has reviewed the referenced file, forwarded for comment on May 26, 2011.

- Manitoba Water Stewardship requires an *Environment Act* Licence to include the following:
  - Manitoba Water Stewardship requires that the discharge periods shall remain for a minimum of four weeks (two weeks for each discharge period), maximizing the nutrient uptake in the drainage path.
  - The Licencee shall 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.
    - Note: Manitoba Water Stewardship 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 requests clarification on the following:
  - What are the constituents of the wastewater that might be different from the creek?
- Manitoba Water Stewardship submits the following comments:
  - Manitoba Water Stewardship does not object to this proposal, at this time.
  - The receiving waters, the Joubert Creek and the Rat River, are fish bearing waters, identified by the Department of Fisheries and Oceans Canada, as Type A habitat.

- The Lake Winnipeg Stewardship Board has recommended that all small wastewater treatment facilities, 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 trickle discharge and effluent irrigation.
- The proponent needs to be informed of the following for information purposes:
  - Erosion and sediment control measures should be implemented until all of the sites have stabilized.
  - *The Water Rights Act* requires a person to obtain a valid licence to control water or construct, establish or maintain any "water control works." "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 direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If a proposal advocates any of the aforementioned activities, a person is required to submit an application for a Water Rights Licence to Construct Water Control Works. A person may contact the following Water Resource Officer to obtain an application and/or obtain information.
    - A contact person is Mr. Geoff Reimer C.E.T., Senior Water Resource Officer, Water Control Works and Drainage Licensing, Manitoba Water Stewardship, Box 4558, Stonewall, Manitoba R0C 2Z0, telephone: (204) 467-4450, email: geoff.reimer@gov.mb.ca.
- The Manitoba Department of Water Stewardship is mandated to ensure the sustainable development of Manitoba's water resources. Manitoba Water Stewardship is committed to the goals of: protecting aquatic ecosystem health; ensuring drinking water is safe and clean for human health; managing water-related risks for human security; and stewarding the societal and economic values of our waterways, lakes and wetlands; for the best water for all life and lasting prosperity. Manitoba Water Stewardship achieves these goals, in part, through administering legislation, including

*The Water Protection Act, The Water Rights Act, and The Water Power Act.*

Disposition:

Additional information was requested to address the comment concerning effluent quality in comparison to the proposed receiving stream. Other comments can be addressed as licence conditions or were provided to the proponent's consultant for information.

**Manitoba Innovation, Energy and Mines - Mines Branch**

No concerns.

**Manitoba Infrastructure and Transportation – Highway Planning and Design Branch**

MIT has reviewed the Environment Act Proposal noted above and we have no concerns to the pond expansion. However, we would like to draw attention to the following:

- All provincial roads are restricted to certain weights. The Village and the trucking company that would haul the septage should already be aware of these weight restrictions.
- If there are any upgrades to the existing forcemains within MIT right-of-way or if the Village is proposing any new lines within MIT right-of-way, then approvals would be required from our department. Gary Toews is the Regional Contact. He can be reached at 346-6288 or [gary.toews@gov.mb.ca](mailto:gary.toews@gov.mb.ca).

Disposition:

This information was provided to the proponent's consultant for information.

**Canadian Environmental Assessment Agency** I have undertaken a survey of federal departments with respect to determining interest in the project noted above. I can confirm that the project information provided has been distributed to all federal departments with a potential interest.

Based on the responses to the survey the application of the Canadian Environmental Assessment Act (the Act) by a federal authority will **not** be required for this project. I have enclosed copies of the received responses for your file.

I can confirm that the project information was shared with the Department of Fisheries and Oceans (DFO), Health Canada (HC) and Environment Canada (EC) as part of the federal coordination process.

DFO has indicated that it is not a Responsible Authority (RA) for this project. Please see the attached letter from DFO.

HC has indicated it is not a RA for this project. HC possesses expert knowledge related to its mandate, which could be provided to a RA if requested. Please see the attached letter from HC.

EC has reviewed the project information and indicated it can contribute its expertise to a responsible authority if a formal request for information is made. EC has also provided a letter with advice for the proponent, related to proper design, maintenance and operation of the lagoon. Krista Flood is the EC contact for this project. She can be reached by phone at (780) 951-8946 or by email at [Krista.Flood@ec.gc.ca](mailto:Krista.Flood@ec.gc.ca).

**Disposition:**

This information was provided directly to the proponent's consultant by the Agency.

**ADDITIONAL INFORMATION:**

Additional information was requested on June 30, 2011 concerning the effect of the discharge of effluent on receiving waterbodies. The requested additional information was received on July 7, 2011:

“ - The discharge is to Sarto Creek, which is classified as a third order drain at the Grunthal lagoon discharge locations. It is a small intermittent stream for the most part in this location with flow in the spring time and when summer rains generate enough runoff and flow in the creek. There are slough-like wetlands along its early stages, with some constructed straight sections to promote better drainage. It then joins Joubert Creek, which is more of a natural waterway as it winds its way towards St. Pierre-Jolys, where a stream flow and level station (05OE007) has been operating.

- The flows at St. Pierre-Jolys based on 40 years of records (copy attached), show mean flows of 3-4 cubic metres /sec in mid-June and near 0 cms during October, the 2 main discharge periods. The minimum flows can be 0 throughout the potential discharge period and the maximum flows can be over 60 cms in June and 2-3 cms in October. Discharge from the lagoon can represent the only flow in the creek to less than 0.05% of the flow depending on the year. If flows are low, the discharge from the lagoon may not go far and would receive additional treatment from the natural linear wetlands along the creek.

- The discharge from the lagoon has typically been well within its licence requirements and should continue to meet its new licence discharge requirements and have little impact on the receiving stream.

- Water quality data is only available downstream on the Joubert Creek and the Rat River. This information will be attached when received. It is expected the water quality will vary depending on flow rate, especially in the early stages of Sarto Creek, as it is susceptible to run-off from surrounding farmland. The discharge from the lagoon will be fairly consistent in quality and it is expected the quality will improve during the summer period, although algae blooms may be more common. The creek also experiences groundwater flows from springs in the area and this varies depending on pressure in the confined aquifer and adds a groundwater quality component to the mix, which will influence the overall quality depending on the mix of water sources.”

**PUBLIC HEARING:**

As no requests for a public hearing were made, a public hearing is not recommended.

**RECOMMENDATION:**

All comments received on the Proposal have been addressed through additional information, by providing information to the proponent's consultants, or can be addressed through licence requirements. Therefore, it is recommended that the Development be licensed under The Environment Act subject to the limits, terms and conditions as described on the attached draft Environment Act Licence.

It is further recommended that enforcement of the Licence be retained by the Environmental Assessment and Licensing Branch until construction of the wastewater treatment lagoon is completed. Enforcement of the licence then should be assigned to the Eastern Region of the Environmental Operations Branch.

Prepared by:

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Bruce Webb, P. Eng.  
Environmental Assessment and Licensing - Land Use Section  
(for Municipal, Industrial and Hazardous Waste Section)

July 8, 2011, updated July 28, 2011

Telephone: (204) 945-7021

Fax: (204) 945-5229

E-mail: [bruce.webb@gov.mb.ca](mailto:bruce.webb@gov.mb.ca)