

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Rural Municipality of Hanover
PROPOSAL NAME: Community of New Bothwell Wastewater Treatment Lagoon Expansion
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon
CLIENT FILE NO.: 3366.10

OVERVIEW:

On December 24, 2009, the Department received an Environment Act Proposal (EAP) on behalf of the Rural Municipality of Hanover for the expansion and operation of the existing Community of New Bothwell wastewater treatment lagoon that is located in SE 29-7-5EPM in the Rural Municipality of Hanover. The expansion will consist of the construction of a new primary cell and a new secondary cell that will be located in NE 29-7-5EPM, north of the existing wastewater treatment lagoon. The primary cell of the existing wastewater treatment lagoon will be converted to a secondary cell while the secondary cell will continue to be operated so. Treated wastewater from the wastewater treatment lagoon will be discharged between June 15th and November 1st of any year via an existing 4th order drain which flows north into Manning Canal which flows northwest into the Seine River Diversion that flows west into the Red River.

The Department, on January 19, 2010, placed copies of the EAP report in the Public Registries located at 123 Main St. (Union Station), the Millennium Public Library, the Manitoba Eco-Network and the Jake Epp Public Library (Steinbach) and provided copies of the EAP report to the Canadian Environmental Assessment Agency (CEAA) and Technical Advisory Committee (TAC) members. As well, the Department placed public notifications of the EAP in The Steinbach Carillon on Thursday, January 21, 2010. The newspaper and TAC notifications invited responses until February 19, 2010.

There were no comments from the public and no comments from the TAC that resulted in additional information being requested from the proponent.

COMMENTS FROM THE PUBLIC:

- There were no comments from the public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Conservation – Environmental Services

- *Recommend modifying section 5.2.3 of the proposal to ensure that the minimum compaction pressure for any compaction equipment be a contact pressure of at least 2400 kPa.*

- *Recommend all inlet & outlet erosion protection for piping be concrete instead of rip rap.*
- *Recommend that pre-treatment be mandatory for preliminary treatment of the cheese plant wastes in order to reduce potential of odour concerns once deposited in proposed non-aerated facultative lagoon.*
- *Suggest over pressure and pumping problems within the low pressure collection system to the lagoon be addressed.*
- *Recommend that the existing cells are required to be upgraded, with all slumping, erosion, etc repaired, the liner inspected by a qualified engineer and rip rap be placed to reduce the potential for continued damage of the cells.*

Disposition:

- The draft Environment Act Licence contains Clauses that identify requirements for soil liner sampling, analysis and reporting of results. The various components of the soil liner(s), be they constructed or in-situ, will be inspected, sampled and analyzed as specified by the designated Environment Officer.
- The draft Environment Act Licence contains a Clause that requires that wet industries that discharge to the wastewater treatment lagoon enter into an industrial agreement with the Licencee.
- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for lagoons in Manitoba.
- The draft Environment Act Licence contains a Clause that, if in the opinion of the Director, significant erosion of the interior surfaces of the dykes occurs, the dykes must be repaired and rip rap installed as necessary.

Conservation – Parks and Natural Areas Branch

- *The Branch has no comments to offer.*

Conservation – Sustainable Resource and Policy Management Branch

- *No concerns.*

Culture, Heritage, Tourism and Sport – Historic Resources Branch

- *No concerns.*

Infrastructure and Transportation

- *No concerns.*

Intergovernmental Affairs

- *The land within the study area falls within the NE ½ 29-7-5 EPM, approximately one half mile northeast of the community of New Bothwell.*

- *The affected land is designated “Rural Area” in the Hanover Development Plan and zoned “Rural Zone” in the RM of Hanover Zoning By-law. The proposal is consistent with the provisions of both the Development Plan and the Zoning By-law.*
- *Our office has no concerns with respect to the proposal.*

Science, Technology, Energy & Mines – Mines Branch

- *No concerns.*

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 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, 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.*
 - *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 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, 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).*
- *The natural layer of clay and silt does not seem to meet the permeability standard, the new liner should be constructed with a clay core within the proposed dykes that ties in with the high plasticity clay layer.*

- *The proponent is requested to provide information on the timing of cheese plant's discharge. The cheese plant operates five (5) days a week (page 12). Will the plant be discharging to the lagoon a corresponding five (5) days a week or will the discharge be continual?*
- *The proposal (p. 10) states: "laboratory analysis of selected samples has shown that the average daily BOD₅ contribution from the New Bothwell Cheese Plant is approximately 1,110 mg-BOD₅/L."*
 - *Manitoba Water Stewardship requests the proponent to provide details of the sample collection method, location of sampling, and laboratory results (including the dates of sample collection). It is helpful to know the monitoring program used to determine the average daily BOD₅ mg/L contribution from the New Bothwell Cheese Plant to make this assessment.*
- *The Department recommends an Environment Act Licence to include the following requirements:*
 - *The discharge period is, at minimum, two (2) weeks to maximize nutrient uptake in the drainage path.*
 - *The effluent quality does not exceed:*
 - *1 mg/L Total Phosphorous;*
 - *25 BOD₅ mg/L;*
 - *200 MPN fecal coliform; and,*
 - *1500 MPN Total coliform.*
 - *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. The proponent 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.*

Disposition:

- Limits, terms and conditions of the draft Environment Act Licence provide construction requirements and operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for wastewater treatment lagoons in Manitoba.
- The draft Environment Act Licence contains a Clause that requires that the Licencee implement effective erosion and sediment control measures during construction and until vegetation is established.
- The draft Environment Act Licence contains a Clause that requires that the Licencee not discharge effluent from the wastewater treatment lagoon where the phosphorus content is in excess of 1.0 mg/L.

- The draft Environment Act Licence contains a Clause that requires that the Licencee discharge the wastewater treatment lagoon at a rate that optimizes the opportunity for nutrients in the effluent to be assimilated in the discharge route prior to reaching the Red River while not challenging the normal operation of the wastewater treatment lagoon.
- The draft Environment Act Licence contains specifications, limits, terms, and conditions specifying that all cells of the wastewater treatment lagoon must be constructed and maintained with continuous soil liners that meet specifications under all interior surfaces.
- The draft Environment Act Licence contains specifications, limits, terms, and conditions regarding the operation and maintenance of the wastewater treatment lagoon that specify that the organic loading, in terms of the five-day biochemical oxygen demand, is not in excess of 56 kilograms per hectare per day.
- The draft Environment Act Licence contains a Clause that requires that the Licencee not allow the discharge of any industrial wastewater from a wet industry into the wastewater collection system and wastewater treatment lagoon unless the wet industry discharging the wastewater has first entered into an industrial use agreement with the Licencee.
- The draft Environment Act Licence contains a Clause that requires that the Licencee shall actively participate in any current or future watershed-based management study, plan and/or nutrient reduction program, approved by the Director, for the Red River, Lake Winnipeg, and associated waterways and watersheds.
- The draft Environment Act Licence contains a Clause that requires that the Licencee shall, during the first year of operation of the Development following the construction of the wastewater treatment lagoon that discharges must occur, obtain two representative grab samples of the effluent during each effluent discharge campaign. The grab samples shall be obtained near the start of each discharge and near the end of each discharge, and shall be analysed and reported in accordance with Schedule "B" that is attached to the draft Licence.

COMMENTS FROM FEDERAL REPRESENTATION:

Canadian Environmental Assessment Agency

- *The project information that was provided has been reviewed by the Canadian Environmental Assessment Agency (CEAA). Application of the Canadian Environmental Assessment Act (the Act) will not be required.*

PUBLIC HEARING:

A public hearing was not requested.

RECOMMENDATION:

Issue an Environment Act Licence in accordance with the attached draft. Enforcement of the components of the new Licence that relate to soil liner characteristics should be assigned to the Environmental Assessment and Licensing Branch until all soil testing has been completed.

PREPARED BY:

Robert Boswick, P. Eng.
Environmental Engineer
Environmental Assessment and Licensing Branch
Manitoba Conservation
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Telephone: (204) 945-6030

Fax: (204) 945-5229

E-mail Address: robert.boswick@gov.mb.ca