

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Rural Municipality of Cartier
PROPOSAL NAME: St. Eustache Wastewater Treatment Lagoon
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon – Waste/Scrap
CLIENT FILE NO.: 5374.00

OVERVIEW:

On October 31, 2008, the Department received a Proposal from J.R. Cousin Consultants Ltd. on behalf of the Rural Municipality of Cartier for the construction and operation of a wastewater treatment lagoon located in the southwest quarter of Section 35-11-3 WPM in the Rural Municipality of Cartier, to serve the community of St. Eustache. The proposed development will consist of the construction of a new primary cell, a new secondary cell, and a truck turnaround and spillway. Treated wastewater from the wastewater treatment lagoon will be discharged between June 15th and November 1st of any year into the perimeter ditch that will flow into a 1st order drainage ditch along the north side of the Municipal road and then into the drainage ditch along the south side of the road, which drains west into the La Salle River.

The Department, on November 20, 2008 placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Winnipeg Millennium Public Library, the Manitoba Eco-Network, and Portage la Prairie City Library. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. The Department placed public notification of the Proposal in the Headingley Headliner on Friday, November 28, 2008. The newspaper and TAC notifications invited responses until December 29, 2008.

On January 29, 2009 Manitoba Conservation forwarded requests for additional information from the TAC and the public to the proponent's consultant.

On March 17, 2009, the consultant submitted responses to the comments and requests from the TAC and the public.

On March 18, 2009, the consultant's responses were distributed to the participating TAC and the public for review and comment.

All additional information necessary for the review was provided in the Public Registries

COMMENTS FROM THE PUBLIC:

John Waldner, Rosedale Colony, Elie, MB, Box130, Roh OHO
January 25, 2009

- *We are deeply concerned about the Lagoon St. Eustache is proposing to build. We are 2 km downstream from the Lagoon where our wells are located. There is a ditch*

running from the Lagoon, east towards the community and then runs north across the 248 east into a ditch which runs into Mill Creek, where three of our surface wells are located.

- *We are drawing 30,000 gallons of water out of those wells a day; for our livestock and human consumption, from which we raise 12,000 hogs a year, 40,000 turkeys, milking 40 cows a day and have 15,000 chickens that produce eggs. These are all going into the food chain daily. It's not only the community that could be affected by what could happen, if the dike of the Lagoon is breached by a water rat, our water source will be polluted within hours. The Lagoon is situated at a spot, where the water could run either east or west.*
- *We proposed that they build a pipeline from the Lagoon to the La Salle River to discharge effluent and build a dike in the ditch so no water can run east from the Lagoon. This way it wouldn't effect our community and two farmers that live only meters from where it is drained into the La Salle River.*
- *Ten years ago a water treatment plant was built north of St. Eustache, of which we were not aware of until construction started. The water they reject is pumped into Mill Creek. Our wells are downstream from there. The plant uses Alum and Soda Ash to treat the water. We feel it is only a matter of time and our wells will be effected. We don't want another Walkerton.*
- *A meeting for the Lagoon was held two years ago in St. Eustache, of which we were not aware. It seemed they didn't want us to know. We had our first meeting with council in Elie, December 15, 2008 with our complaints. I think it was too late, it fell on deaf ears.*

Proponent Response (March 12, 2009):

- As stated in Section 2.6.3 of the Environment Act Proposal (EAP) for St. Eustache Lagoon, the treated effluent from the lagoon would be discharged to the east of the lagoon as follows:
 - Treated effluent would be discharged into the perimeter ditch by gravity via a discharge pipe
 - From the perimeter ditch, the effluent would flow into a 1st order drainage ditch along the north side of the Municipal road (Picard Road). A culvert would be installed under the truck turnaround for draining the perimeter ditches into the drainage ditch on the north side of the road
 - Then the effluent would flow into the drainage ditch along the south side of the road (via an existing culvert draining from north to south side of the road just south of the lagoon site), which drains west into the La Salle River.
 - The described discharge route is shown on Plan 2 in Appendix B of the EAP. J. R. Cousin Consultants Ltd. has surveyed and verified the feasibility of the proposed lagoon discharge route. The presently proposed lagoon location is approximately 550 m to the west of a previously identified location. The lagoon location was altered to appease Rosedale

Community by resolving the concern that discharge from the lagoon would flow to the east in the ditch located south of the lagoon. According to the currently proposed lagoon location, drainage from the lagoon would no longer flow to the east.

- Considering the natural topography suitable for discharging the lagoon as described above, installing discharge pipe from the lagoon to the La Salle River cannot be justified economically. If necessary a berm may be constructed in the 1st order drainage ditch along the Municipal road (Picard Road) to the east of the southeast corner of the lagoon to further ensure treated effluent cannot flow eastward.

Disposition:

After receiving the additional information from the proponent, no further comments were received from the John Waldner of Rosedale Colony.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Infrastructure and Transportation

- *No concerns*

Manitoba Conservation – Parks and Natural Areas Branch

- *No concerns*

Manitoba Conservation - Sustainable Resource & Policy Management Branch

- *No concerns*

Manitoba Culture, Heritage, Tourism and Sport – Historic Resources Branch

- *No concerns*

Manitoba Conservation – Pollution Prevention Branch

December 19, 2008

- *“Standard” clauses typically included in Licences by EAL should address the potential odour situation.*

Disposition:

The draft Licence includes a Clause that requires the Licencee to operate the lagoon in a manner that minimizes offensive odours.

Manitoba Water Stewardship – Planning and Coordination Branch

January 7, 2008

- *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 the proposal in question advocates any of these activities, 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 La Salle River is used recreationally (fishing and canoeing), agriculturally (irrigation) and it is also the source of raw water for some communities. The Department is concerned about the health of the La Salle River as trend analysis results show that nutrients, TN (145% increase) and TP (193.8% increase), in the La Salle River have increased quite dramatically. Several municipal wastewater lagoons currently discharge secondary effluent into the river, a number of livestock operations are found within the La Salle watershed and it is surrounded by intensively cultivated agricultural land. (ref Jones and Armstrong, 1999). Further the La Salle River flows into the Red River and into Lake Winnipeg. Also the Red River watershed (including the La Salle) contributes a large proportion (55 %) of the phosphorus load to Lake Winnipeg. The large proportion is significant given that the Red River watershed makes up only 13 % of the Lake Winnipeg watershed. Manitoba Water Stewardship and others have recognized that efforts to reduce nutrient loading in the Red River watershed should be a priority if nutrient loads to Lake Winnipeg are to be reduced.
 - Therefore, the Department recommends the St. Eustache Lagoon be required to meet 1 mg/L TP as a condition in an *Environment Act* Licence.
- Dischargers to Lake Winnipeg such as the Town of Gimli have implemented phosphorus removal to 1 mg/L. In addition, phosphorus removal to 1 mg/L is now implemented at new and expanding provincial park facilities. Minnesota, which shares a portion of the Red River watershed with North Dakota and Manitoba, has a similar phosphorus standard to protect lakes and rivers from the negative effects of excess nutrients. Finally, the Ste. Anne's facility is recently required to meet 1 mg/L phosphorus limit. Multilaterally reducing phosphorus is required to restore Lake Winnipeg and the proposed 1 mg/L phosphorous limit is consistent with measures underway elsewhere.
- Under the section 2.6.8.2 "Nutrient Management Plan" in the proposal, the proponent states a trickle discharge rate of 0.004 m³/sec over 17-18 weeks could be applied; this is recommended by the Department. Further, preliminary studies indicate that constructed wetlands in Manitoba are capable of removing 60 – 90% of phosphorous (summer).
- Has the community considered regionalization of wastewater treatment with other communities nearby?

- 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.
 - Therefore, the Department 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 (March 12, 2009):

- The proponent understands the requirement for Water Rights Act in relation to water control works. It does not appear that this proposal advocates any of the activities listed in the letter from the Planning and Coordination Branch. When the project proceeds to the design stage, the need for Water Rights License application for this project will be re-verified and if so required a License shall be solicited.
- Erosion and sediment control measures will be implemented as necessary. As indicated in Sections 4.3 of the Environment Act Proposal (EAP), the specifications would state that the contractor is responsible for erosion control. At the time of preparing the specification, more detailed description of the procedures to be followed by the contractor would be provided.
- The St. Eustache lagoon would be receiving strictly residential wastewater with organic contribution from the population at the rate of 0.076 kg BOD₅/person/day. J.R. Cousin Consultants Ltd. can advise the R.M. of Cartier to encourage the Community of St. Eustache to use non-phosphate based soap products for their domestic purposes. This would enable to reduce the quantity of phosphorus being released into the lagoon via the wastewater from residences. The R.M. would be willing to create such awareness and educate their citizens. In addition, the phosphorus level in the treated effluent could be tested prior to discharge and alum could be spread in the lagoon to reduce the level of phosphorus in the treated effluent to 1.0 mg/L, if required.
- The Community did consider regionalization of wastewater treatment. The option considered was to direct their wastewater to the Elie lagoon, however it was not feasible due to cost requirement that is unaffordable by the Community.
- The proponent would be willing to participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director, Water Science and Management Branch, and Manitoba Water Stewardship for the La Salle River, Red River, and associated waterways.

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Manitoba Water Stewardship.
- The draft Licence includes a Clause that requires the Licencee to actively participate in any future watershed based management study, plan and/or nutrient reduction program, approved by the Director, for the La Salle River, Red River, and associated waterways.

COMMENTS FROM FEDERAL REPRESENTATION:

Canadian Environmental Assessment Agency (CEEA)

July 8, 2008

- *Based on the responses to the CEEA survey, application of the Canadian Environmental Assessment Act will be required.*
- *Health Canada (HC) would be able to provide specialist advice if requested.*
- *Fisheries and Oceans (DFO) has also offered to provide advice and would like to participate in the technical review of the project.*

Responses from the Proponent to CEEA (January 23, 2009)

- As requested, this letter will provide a brief description of the key considerations for the pressure sewer portion of the Lagoon and Pressure Sewer project for St. Eustache, in the R.M. of Cartier. As you are aware, a complete Environment Act Proposal has been submitted for the lagoon portion of the project, which is being reviewed.
- The proponent is the Rural Municipality of Cartier.
- The location of the project is shown on the attached plan, Plan PS1.
- In brief, there are approximately 100 houses in the in the Community of St. Eustache that will be connected to the proposed piped sewer collection system. Future development in this area is expected to result in additional 10 connections over the next 20 years.
- The project consists of the supply and installation of approximately 1,530 m of 150 mm diameter forcemain, 1,430 m of 150 mm diameter and 3,800 m of 100 mm diameter pressure sewer mains, as well as 100 sewer service connections.
- High Density Polyethylene (HDPE) piping will be used for the forcemain, sewer main, and service connections. Installation of the piping is proposed to be completed mainly by directional drilling with some possible trenching. For frost protection, depth for the pipe installation would be approximately 2.5 m below surface following contours of the natural land. The installation depth would be approximately 3.0 m below the surface when crossing roads.
- No cumulative impacts are expected from the piping works. Existing septic tanks will be modified for use with the pressure sewer system.
- An open house meeting was held on December 15, 2008 whereby the public was given the opportunity to ask questions regarding the project and answers were provided.

PUBLIC HEARING:

A public hearing is not recommended because no further comments were received from the public.

RECOMMENDATION:

The Proponent should be issued a Licence for the expansion and operation of the wastewater treatment lagoon in accordance with the specifications, terms and conditions of the attached 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.

PREPARED BY:

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