

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Town of Emerson
PROPOSAL NAME: Town of Emerson – Wastewater Stabilization Pond
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon
CLIENT FILE NO.: 36.40

OVERVIEW:

On September 25, 2009, the Department received an Environment Act Proposal (EAP) on behalf of the Town of Emerson for the expansion and operation of the existing Town of Emerson wastewater treatment lagoon that is located on River Lots 9 and 11, Parish of Sainte Agathe in the Town of Emerson. The proposed expansion consists of the construction of one new, additional secondary cell that will be located immediately west of the existing wastewater treatment lagoon. The proposed upgrade of the existing wastewater treatment lagoon consists of repairing portions of the dykes, raising the existing dykes to provide improved flood protection, and adding a truck dump facility. It is also proposed that the method of discharging the wastewater treatment lagoon will change in that discharge will now be via existing ditches rather than pipeline. Treated wastewater from the wastewater treatment lagoon will be discharged to the Red River between June 15th and November 1st of any year.

The Department, on October 21, 2009, 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, the South Central Regional Library and the Town of Emerson office 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, October 29, 2009 and in the Emerson Southeast Journal on Saturday, October 31, 2009. The newspaper and TAC notifications invited responses until December 1, 2009.

On December 7, 2009 Manitoba Conservation forwarded requests for additional information from the public and the TAC to the proponent. The proponent's January 4, 2010 response to the requests was then provided to the participating public and TAC for review and comment on January 18, 2010.

On March 12, 2010 Manitoba Conservation forwarded requests for additional information from the public and the TAC to the proponent. The proponent's April 15, 2010 response to the requests was then provided to the participating public for review and comment on April 19, 2010.

The participating public submitted supplementary comments in letters dated April 27, 2010 and April 29, 2010. The letters reiterated their initial concerns regarding how the expansion and operation of the lagoon would impact their local environment due to its proximity to their residences.

The May 6, 2010 Summary of Comments/Recommendations concluded with a recommendation to not issue an Environment Act Licence due to the justified public objection to the proposal and the environmental nuisance that the proposed expansion would effect on adjacent residents.

In a May 26, 2010 letter Manitoba Conservation advised the Town of Emerson that they were refused an Environment Act Licence for the lagoon as proposed. The Town was also advised that if a different configuration, complying with Manitoba design objectives, was proposed, then the review could continue. The letter also advised that the decision could be appealed to the Minister of Conservation within 30 days of the date of that letter.

On June 2, 2010 representatives from the Town of Emerson met with Manitoba Conservation for the purpose of discussing options that would enable the review process to continue. In response to discussions at that meeting, the Town of Emerson provided additional information in a June 4, 2010 letter with attachments.

In a June 10, 2010 letter Manitoba Conservation advised the Town of Emerson that they were again refused an Environment Act Licence as the material presented did not provide enough detail to allow for a full, proper and necessary environmental assessment of the proposed alterations to the wastewater treatment lagoon and immediately adjacent land. The Town was advised that they could either provide, for inclusion with the Proposal review, more detailed information including engineering design criteria or appeal the original decision to the Minister of Conservation within thirty days of the date of the original letter.

In a July 9, 2010 letter, the Town of Emerson provided additional engineering design information regarding the proposed lagoon expansion, including comments regarding usage of the proposed cell, signage and fencing at the site, details of the borrow pit and landscaping at the site. Engineering drawings were also submitted.

COMMENTS FROM THE PUBLIC:

Initial EAP Review

Contributing Public

- Len and Tina Pappel;
- Glen and Sandra Pappel;
- Brian and Ellen Pettit; and

- Sandra Pappel

The initial concerns presented by the public regarding the proposed Development, being expansion and continuing operation of the wastewater treatment lagoon related to the September 2009 Environment Act Proposal and subsequent responses to requests for additional information or discussion can be summarized as follows:

1. Hydraulic pressure on the ground;
2. Soil no good for a lagoon;
3. Flood water direction of flow;
4. Flooding of the proposed lagoon;
5. Borrow pits, mosquitoes (West Nile) and standing water;
6. Smell of wastewater lagoon;
7. Sight of the lagoon, borrow pit & chain link fence;
8. Pay for lagoon, not even using it;
9. Ditches to empty lagoon; and
10. Size of the proposed lagoon.

Copies of each public letter are available in the associated Public Registries.

The proponent's responses to the initial public comments were as follows:

Proponent Responses – January 4, 2010

1. Hydraulic pressure on the ground.
 - The design of the new secondary cell will comply with the liner requirements of the Manitoba Conservation guidelines. A one metre clay liner having a permeability of 1×10^{-7} cm/s or less will be constructed into the new secondary cell. The clay liner will be tested and the results of the testing will be reported to Manitoba Conservation.
 - Based on the drainage map of the area, groundwater flow at the proposed site is immediately towards the south and eventually heading to the Red River, which flows north.
 - It is true that construction of the new WWSP will increase the hydraulic pressure on the ground. However, this hydraulic pressure is negligible since no shallow groundwater was encountered near the base of the proposed WWSP.
 - Groundwater monitoring will be performed as required by Manitoba Conservation.
2. Soil no good for a lagoon.
 - For lagoon construction, Manitoba Conservation's guidelines require that the proposed dykes and bottom of the ponds should be provided with at least one metre layer consisting of soil having a permeability of less than 1×10^{-7} cm/s.
 - On July 10, 2008 GENIVAR conducted a geotechnical investigation at the proposed site (River lots 9 and 11, Parish of Sainte Agathe) during which nine test holes, TH1 – TH9 were drilled. The soil at the proposed cell site consists of

- topsoil underlain by a clayey silt layer over a clay layer. The clayey silt layer contains traces of silt lenses and well-defined fissures and will be reworked and recompact to meet the liner requirements. It is expected the hydraulic conductivity of the reworked soil will be 1×10^{-8} to 1×10^{-9} cm/s well within the requirements of 1×10^{-7} cm/s.
- Based on our field investigation, well logs from Manitoba Water Well reports and laboratory analysis, the proposed pond liner (dyke and bottom) should be constructed with the in-situ clayey silt material.
3. Flood water direction of flow.
 - The earthen dykes around the new secondary cell and the existing two-cell lagoon, after completion of the project, will have crest elevations of 242.4 metres (795 feet) G.S. of C. Datum, which is the Flood Protection Level for this location. Raising the dykes will protect the lagoon from flooding and will not influence the direction of the flood water flow.
 4. Flooding of the proposed lagoon.
 - The proposed development consists of the upgrading of the existing lagoon cells and the construction of a new secondary cell. The objective of the upgrading is to repair the existing lagoon inner berm and to raise the existing dykes by 0.89 m (2.9 ft) in order to protect it from flooding. The earthen dykes around the new secondary cell and the existing two-cell lagoon, after completion of the project, will have crest elevations of 242.4 metres (795 feet) G.S. of C. Datum, which is the Flood Protection Level for this location.
 5. Borrow pits, mosquitoes (West Nile) and standing water.
 - The Town of Emerson does larviciding in standing water each year, through the West Nile Virus Program. This is a grant from the Province, Department of Health and Healthy Living. The borrow pit will be larvicided through this program as well.
 6. Smell of wastewater lagoon
 - It is expected that the new secondary cell will operate without causing any significant odour problems. The only time of the year that some minor odours may be present is during the spring while the ice thaws. During the winter, ice cover largely prevents free oxygen from entering the water. This condition leads to the production of hydrogen sulphide gas (H_2S) during the winter by bacteria that do not require free oxygen. These accumulated gases dissipate quickly into the atmosphere when the ice breaks and the pond returns to a non-odorous condition, typically two weeks.
 7. Sight of the lagoon, borrow pit & chain link fence.
 - There will be no chain link fence installed around the lagoon. The fence will be a farm style, barbed wire fence surrounding the facility with gated access. The new

- barbed wire farm perimeter fence will be installed as detailed in the drawings and in accordance with the province of Manitoba Design Objectives For Standard Sewage Lagoons (1985), to preclude livestock and discourage trespassing.
8. Pay for lagoon, not even using it.
 - The bottom elevations of the existing primary cell and secondary cell are 239.27 m and 238.96 m respectively. The bottom elevation of the new secondary cell is the same as of the existing primary cell or 239.27 m. At the time of our geotechnical investigation on July 10, 2008, the groundwater was not considered a problem at the site.
 9. Ditches to empty lagoon.
 - The existing perimeter drainage ditch will be extended around the new cell to provide positive drainage for surface water around the lagoon. Treated effluent will be discharged into the creek draining from Lake Louise and will travel for approximately 1.3 kilometres before emptying into Red River. The new ditches will be graded to the drain to prevent standing water.
 10. Size of the proposed lagoon.
 - Lagoons are presently designed for a 227-day storage period beginning November 1st and ending June 15th of the following year. The existing lagoon is operating under a 196-day storage period, which will be extended to a 227- day storage period in a new Environment Act Licence (EAL). There is an allowance for only minor increase in flows for the future.

Supplementary EAP Review

Contributing Public

- Brian and Ellen Pettit and family; and
- Glen and Sandra Pappel;

The initial concerns of the contributing public were reiterated in letters submitted as components of the Environment Act Proposal review.

Copies of each public letter are available in the associated Public Registries.

The proponent's responses to the supplementary public comments were as follows:

Letter from Mr. & Mrs. Brian Pettit and family

1.0 Lagoon Expansion

- The lagoon has been hydraulically challenged for many years and with the additional month of storage required for new licences, has required a significant addition. There is actually only minor allowance for increases over the next 20

years, approximately 7.4% additional storage and most of this is allocated to the West Lynne and Customs area, which is estimated to increase by 20% because of growth at the border. The expansion is mostly required to meet its existing storage requirements.

2.0 Flood Protection

- The raising of the berms of the lagoon for flood protection will keep the flood waters out of the lagoon cells and would have the same impact as dyking around a farm yard. Water will surround the facility to flood levels.

3.0 Aquifer

- The main aquifer in the area is saline under approximately 100 feet of clay over 75 feet of glacial till and then limestone bedrock. The bedrock contains water under pressure which can be above the ground surface. The artesian pressure over a millennium (thousand year period) has increased the salinity of the soil as the water evaporates at the ground surface leaving the dissolved salts behind. The lagoon itself creates a small downward pressure (hydraulic gradient) on the lagoon site. There aren't any large shallow aquifers in the area because of the deep clay soils which restrict flow. Natural depressions accumulate water which sits on the clay soils and shallow silt layers which generally are wet and found near the ground surface. Some depressions may have springs feeding them, which originate from deeper aquifers and remain wet even in dry years.
- Nine test holes were drilled during the geotechnical investigation and no local shallow aquifer was found, although some silt layers were wet, mainly to the north. We also checked well Logs in the area and a provincial groundwater report which gave us a good idea of what to expect. Our information is not based on just "1 sampling date".

4.0 Larviciding

- The Town of Emerson belongs to the Valley Weed Board (Emerson Montcalm-Town of Morris). They larvicide all standing water every spring and take weekly samples for larvae. The Town of Emerson sprays for mosquitoes every 10 days when the trap count is high enough.

5.0 Town of Altona Wastewater Treatment

- The Town of Altona has an aerated primary cell for treating the higher strength wastewater caused by an industry in their town (Bunge). They still utilize storage cells for storing the wastewater over the winter period, November 1 to June 15. It can then be discharged from June 15 to October 31 each year, once its quality meets its licence requirements. It is a much more expensive system, both capital and operating and usually only done for communities with industries which discharge high strength wastewater. The licence dictates the depth of wastewater

allowed in cells so that adequate treatment is achieved.

6.0 Flood Proofing

- The lagoon will be built to the same level as other developments — 1997 river levels plus 2 feet. Unfortunately, there are no guarantees in life, but these are the levels of protection required if one is to build along the Red River.

Letter from Glen and Sandra Pappel

7.0 Groundwater and Drainage

- Drainage from Lake Louise to the north generally flows south to the Red River, except during flood events when flow may reverse or back-up. Local surface water and any shallow groundwater generally follows this same regime. When water flows to the north, the present lagoon on the west does not hinder that flow and the new cell farther west will not affect flow either. The main current will still be in the drainage route and as the water rises it will cover all land to the same elevation, resulting in water flowing around the lagoon on all sides. With the increased elevation of the existing cells, the main flow will tend to stay to the east. The lagoon will not cause the water to flow over Sherwood Avenue, the height of the river will determine that as well as the height of other natural and man-made features, such as dykes, roads and railroad beds.
- We have no specific information on groundwater at the Pappel yard, no aquifer was found during the geotechnical investigation, as discussed above in item #3.0. It was mentioned that a swampy area exists to the west of the two properties and east of Travel Manitoba, which could also account for a local water table in the area.

8.0 Lagoon Storage

- As discussed above in Item #1.0, the existing storage is not adequate and the proposed new secondary cell only provides about 7.4% additional storage over the next 20 years. The rest of the storage is needed now to handle existing flows.

9.0 Land Damage

- As discussed above in Item #3.0, there is natural soil salinity in the area, but other causes may be affecting vegetation growth north and west of the existing lagoon. Flooding, cool summers, excess rain and snow have all impacted crops in the area over the years. Normally, damage attributed to lagoon cells is in close proximity to the cells and very localized. It is difficult to say whether the described damage is attributed to the lagoon or other factors.

10.0 Lagoon Usage and Payment

- We apologize for the confusion on your question No. 8 of previous letter. The response was to be part of another question.
- Septic fields and ejector systems are no longer allowed in areas of the Red River Valley because of the heavy, water-tight clays which cause field failures and ponding water. The heavy clay soils actually make great liners for lagoons because they are so water-tight. If you have a holding tank, it will have to be hauled to a licensed wastewater treatment facility, so you may be using the lagoon in the future.
- As for the paying for the lagoon, that is still being decided by the Town.

We realize that not all of the responses are what people want to hear, but based on our research and investigations normally undertaken for such facilities, these are our findings. We're not sure if a site sit-down meeting with yourself and the residents would provide a better response, but that could be undertaken if you think it will help the cause.

Additional Supplementary EAP Review

Contributing Public

- Brian and Ellen Pettit and family; and
- Glen and Sandra Pappel;

The initial and continuing concerns of the contributing public were again reiterated in supplementary letters submitted as components of the Environment Act Proposal review.

The most significant of the comments and concerns involve the proximity of the proposed expanded wastewater treatment lagoon to existing residences.

Copies of each supplementary public letter are available in the associated Public Registries.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Conservation – Environmental Operations

- *The proposed change to the discharge route to an over land drainage ditch may result in over land flooding of agricultural land at the time of discharge. Mitigation of this was not mentioned in operational discharge procedure (7.1). In addition, the proposal indicates that at least one residence is located closer to the proposed site than the recommended setback distance for wastewater facilities of 300 m, at a distance of 200m. This deviation from the recommended setbacks could create nuisance odours for the owners of this property. These potential issues should be further addressed by the proponent.*

Proponent Response – January 4, 2010

- From the discharge point into the creek draining from Lake Louise, the effluent will flow into the Red River. The distance of the route from the discharge point of the lagoon to the Red River is approximately 1.3 kilometres. The storage volume of the new secondary cell is 42,200 m³ and with the average flow rate of 54.9 L/s the duration of the discharge is approximately nine days. The storage volume of the existing secondary cell is 24,900 m³; with the average flow rate of 50.6 L/s the duration of the discharge is approximately six days. Therefore, the lagoon discharge is expected to be a small portion of the flow through the drains and is not expected to result in overland flooding of agricultural land at the time of discharge.
- It is expected that the new secondary cell will operate without causing any significant odour problems. The only time of the year that some minor odours may be present is during the spring while the ice thaws. During the winter, ice cover largely prevents free oxygen from entering the water. This condition leads to the production of hydrogen sulphide gas (H₂S) during the winter by bacteria that do not require free oxygen. These accumulated gases dissipate quickly into the atmosphere when the ice breaks and the pond returns to a non-odorous condition, approximately two weeks.

Conservation – Environmental Services

- *The submission meets our requirements and we do not have any comments.*

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

November 23, 2009

- *On behalf of the Steinbach Community Planning Services office, I have reviewed any potential areas of concern that should be addressed as part of the environmental evaluation pursuant to The Environment Act.*

The lagoon is presently located in the northwest part of the Town, and the expansion will occur to the west of the current lagoon. An engineering report

completed by Genivar indicated that the existing lagoon has experienced problems with discharge and that it is not capable of servicing existing and future wastewater generation.

The land within the study area falls within River Lots 9 and 11, Parish of Sainte Agathe within the limits of the Town of Emerson. The affected land is designated Agricultural according to the Town of Emerson Development Plan. Policy VII.2.6 states that sewage disposal lagoons are considered to be conditional uses. The parcel is zoned "AL" Agricultural Limited according to the Town of Emerson Zoning By-law. Sewage disposal lagoons are a conditional use in this zone. Provided that Council will approve a conditional for the expansion, our office has no concerns with respect to the proposal.

Proponent Response – January 4, 2010

- All general comments are noted.

Science, Technology, Energy & Mines – Mines Branch

- *No concerns.*

Water Stewardship

November 30, 2009

- *Manitoba Water Stewardship has reviewed the referenced file, forwarded for comment on October 21, 2009. The Department has the following comments:*
 - *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.*
- *There is an error in the Environment Act Proposal that should be changed. Under section 6.6 Fisheries, it is noted that, according to the Department of Fisheries and Oceans Canada, the watercourse from Lake Louise should be classified as Type A habitat (indirect habitat, providing no fish habitat) for that reach downstream of the Railway Crossing to the Red River. The information in the parenthesis is incorrect. Type A habitat is considered complex habitat with indicator species. As indicated in the email from the Department of Fisheries and Oceans Canada, this watercourse is likely to provide spawning habitat for pike and suckers and as such mitigating project effects is important.*
- *According to the design engineering drawings submitted with the Environment Act Proposal, the earthen dykes around the new Secondary Cell and the existing Primary Cell and existing Secondary Cell will, after completion of the project, have crest elevations of 242.6 metres (795.9 feet) G.S. of C. Datum.*
 - o *This proposed dyke crest elevation exceeds the Flood Protection Level of 242.3 metres (795 feet) for this location, and Manitoba Water Stewardship does not object to the project proceeding as designed.*
 - o *The proposed site is located within the Red River Valley Designated Flood Area.*
- *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 proponent plans to discharge into Louise Lake drain and ultimately the Red River. The Red River is designated as a vulnerable water body in the Nutrient Management Regulation. Trickle discharge allows time for the nutrients in the effluent to be assimilated in the drainage path, prior to reaching the Red River. The Environment Act Proposal does not appear to indicate the length of time of discharge.*
- *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 existing lagoon has a valid Environment Act Licence. The Red River downstream of the lagoon effluent discharge point provides the raw water source for the Letellier and Morris domestic water treatment plants. These plants can accept and treat river water with the treated effluent from the lagoons on a routine basis. Manitoba Water Stewardship is aware that a requirement of an existing Environment Act Licence is that, should a failure occur at the lagoon, resulting in a spill of partially treated wastewater, a protocol is in place to notify an Environment Officer. Next, an Environment Officer notifies the water plant operators at Letellier and Morris. This protocol should be continued in a revised Environment Act Licence for the expanded lagoon facility.*
- *Manitoba Water Stewardship recommends that an Environment Act Licence shall include the following requirements:*
 - *Prior to the commencement of construction, the proponent is required to apply for a Red River Valley Designated Flood Area permit (see attached application) from Manitoba Water Stewardship in accordance with Manitoba Regulation 59/2002, a regulation under The Water Resources Administration Act;*
 - *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, Manitoba Water Stewardship;*
 - *The discharge period is at least two (2) weeks or more; and,*
 - *Develop and implement an Emergency Response Plan that includes requirements to notify an Environment Officer, in the event of an emergency such as a spill of partially treated wastewater or raw wastewater into the Red River. Next, an Environment Officer notifies the water plant operators at Letellier and Morris.*

Proponent Response – January 4, 2010

- Activities involved in the construction of the lagoon project are not expected to trigger an application for a Water Rights Licence to Construct Water Control Works. No drainage infrastructure will be constructed as part of this project. To date, domestic sewerage systems including wastewater treatment lagoons have not been considered to be water control works as defined by The Water Rights Act.
- The Contractor shall 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.
- Under section 6.6 Fisheries of the Environment Act Proposal, the watercourse from Lake Louise was classified as Type A habitat (indirect habitat, providing no fish habitat). The information in the parentheses should be changed to complex habitat with indicator species for the section downstream of the Railway Crossing to the Red

River, where Northern Pike and White Suckers may spawn. The lagoon will not be discharged until after June 15th each year, and therefore the water quality will be improved during the critical fish-spawning period.

- The dyke crest elevation was to be designed to the Flood Protection Level for its location. An elevation of 796 feet was obtained from the Town and as pointed out, this elevation is for the border area, south of Emerson, while the correct elevation for the lagoon site is 795 feet. The dyke crests will be designed to 795 feet (242.4 metres).
- 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 of this limitation prior to its full adaptation is premature.
- The storage volume of the new secondary cell is 42,200 m³; the duration of the discharge is approximately nine days. The storage volume of the existing secondary cell is 24,900 m³; the duration of the discharge is approximately six days. Implementing trickle discharge may cause the primary cell to temporarily exceed a depth of 1.5 metres while waiting for the completion of the lengthened discharge process. If trickle discharge is mandated, this temporary condition will preferably be permitted by the Licence or, as an alternative, an accelerated discharge should be permitted under these circumstances.
- The application for Permit in the Red River Valley Designated Flood Area with the documentation in support of this application is attached.
- Any party involved in a future watershed based management study, plan/or nutrient reduction program for the area are welcome to contact the Town of Emerson.
- All general comments are noted.

January 20, 2010

- *Manitoba Water Stewardship has reviewed a response, dated on January 4, 2010, from the proponent's consultant, forwarded for review and comment on January 18, 2010. The Department submits the following comments and concerns:*
 - The proponent plans to discharge into Louise Lake drain and ultimately the Red River. The Red River is designated as a vulnerable water body in the Nutrient Management Regulation under The Water Protection Act. Trickle discharge allows time for the nutrients in the effluent to be assimilated in the drainage path, prior to reaching the Red River.
 - Manitoba Water Stewardship recommends that an Environment Act Licence shall include the following requirements:
 - The depth of wastewater in the lagoon's primary cell shall be maintained at 1.5 metres and trickle discharge shall occur for a period of two weeks.

- In a case where the depth of wastewater in the lagoon's primary cell exceeds 1.5 metres or is near exceeding 1.5 metres, then an accelerated discharge shall be permitted.

Proponent Response – April 15, 2010

- The recommendations are acceptable and have been included in other recent licences.

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:

Do not issue an Environment Act Licence respecting the expansion of the Town of Emerson wastewater treatment lagoon as proposed and including the additional engineering design information. The reasons for the recommended refusal are:

- 1) the justified public objection to the proposal;
- 2) the environmental nuisance that the proposed lagoon expansion would effect on the adjacent residents (especially those who claim they were residents there at the time of original construction); and
- 3) the additional engineering design information does not adequately adjust the originally proposed design such that impacts on the adjacent residents would be reduced.

It is worthy to note that Manitoba Design Objectives for Standard Sewage Lagoons suggest that wastewater treatment lagoons should be not any closer than 305 metres (1000 feet) from individual residences. The proposed expansion would bring the Town of Emerson wastewater treatment lagoon to within approximately 200 metres (656 feet) from the closest residence. In addition, a review of the general area's historic climatic data showed that winds in directions that would cause odours to transfer from the wastewater treatment lagoon toward the nearby residences are prevalent.

Other options are available.

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July 14, 2010

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