

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPOSER: Waldheim Holding Company Limited
PROPOSAL NAME: Little Creek Colony Wastewater Treatment Lagoon
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Waste/Scrap Wastewater Treatment Lagoons
CLIENT FILE NO.: 5216.00

OVERVIEW:

On July 28, 2006, the Department received a Proposal from Cochrane Engineering Ltd. on behalf of Waldheim Holding Co. Ltd. for the construction and operation of a wastewater treatment lagoon located on River Lot 156, Parish Baie St. Paul in the R.M. of St. Francois Xavier. Treated wastewater from the wastewater treatment lagoon will be discharged between June 16th and October 31st of any year into Long Lake Drain or between May 16th and October 14th of any year by land application onto agricultural lands owned by the Colony.

The Department, on August 30, 2006, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Winnipeg Public Library, the Portage la Prairie City Library, and the Manitoba Eco-Network. 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, September 1, 2006. The newspaper and TAC notifications invited responses until October 5, 2006.

COMMENTS FROM THE PUBLIC:

Colleen Atamanchuk,
Chief Administrative Officer
Rural Municipality of St. Francois Xavier

- The council of the Rural Municipality of St. Francois Xavier has expressed concerns about the proposal to apply effluent to the land.
- On January 15, 1995 Little Creek Colony received approval from the municipal council under Conditional Use Permit No. CU3-94 to allow the establishment of a farrow to finish hog operation using a maximum of 1200 sows, producing a maximum of 2,400 Livestock Waste Units. Twice annually, the stored waste must be disposed of by injection into land currently under cultivation.
- The council's concerns relate to adding more effluent to the cultivated land and the associated increase in potential for odour problems for residences in the vicinity. Little Creek currently has an 8,000,000 gallon above-ground manure storage, a 2.6 million gallon settling cell and under the current application will construct a 150.2 x 87.8 metre wastewater lagoon all of which can potentially be a source of odour problems for neighbouring property owners.

- The council is unclear as to why it is deemed necessary or desirable to apply the lagoon effluent to the land. The municipality operates a wastewater treatment lagoon which is discharged into a surface drain. The lagoon receives solid wastes that are trucked in for disposal from septic tanks throughout the municipality. The municipal lagoon is successfully discharged twice annually into Second Creek Drain without necessity for any land application program.
- The council does not object to the proposal by Little Creek to construct and operate the wastewater treatment lagoon. Nor do they object to the proposal to discharge to the Long Lake Drain which is the stated preferred and mainly used discharge method. The proposal to apply effluent to the land is presently seen to be an unnecessary, additional potential source of odour problems for adjacent landowners.

Proponent Response (November 6, 2006):

- The EAP included land application as a discharge method because during dry years the wastewater would benefit crop production. The Colony has withdrawn their request for land application.
- As stated in section 5.1 and 8.2 of the report, the design of the primary cell is based on an organic loading of 63% of the allowed, in the expectation that odours will be reduced from normal levels, which are not considered significant in the first instance.

Disposition:

After receiving the additional information from the proponent, no further comments were received. This was assumed to indicate that the original comments were satisfied.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture, Food and Rural Initiatives

- *Soils on this River Lot and the surrounding area consist predominantly of Marquette and Kline soils, saline phase. The Kline series consists of poorly drained Rego Humic Gleysol soils developed on thin, fine textured, moderately to strongly calcareous lacustrine deposits overlying stony, extremely calcareous loamy glacial and water-modified till deposits. The Marquette series consists of imperfectly drained Gleyed Rego Black soils developed on thin, fine textured, moderately to strongly calcareous lacustrine deposits overlying extremely calcareous, medium to moderately fine textured stony glacial till.*
- *We have no concerns with the proposed construction and placement of the wastewater treatment lagoon from an agricultural perspective. We have also identified no concerns with effluent discharge into the Long Lake Drain, provided that it meets all criteria set by Manitoba Conservation.*
- *In regard to the effluent application to agricultural land as outlined under section 7.0 of the Environment Act Proposal, any effluent applied to land should meet quality guidelines for irrigation waters. This does not appear to be the case for the “average quality of lagoon effluents” indicated in Table 8-2 of the document, whereby average conductivity, at 2656 $\mu\text{S}/\text{cm}$, is larger than value given for the Manitoba Water*

Quality Standards, Objectives and Guidelines for Irrigation of 1500 µS/cm. Applying effluent to this land may lead to increased salinity on these soils, which are already weakly saline. MAFRI recommends that the applicants use caution in applying this effluent to their agricultural land and would prefer that the effluent be discharged into the Long Lake Drain.

Proponent Response (November 6, 2006):

- The Colony has withdrawn their request for land application. Originally, the Colony's intent was to discharge treated effluent to the Long Lake Drain the great majority of the time. They are understandably aware that their soils are slightly saline. The EAP included land application as a discharge method because during dry years the wastewater would benefit crop production.

Disposition:

After receiving the additional information from the proponent, no further comments were received from Agriculture, Food and Rural Initiatives. This was assumed to indicate that the original comments were satisfied.

Conservation - Sustainable Resource & Policy Management

- *No concerns.*

Water Stewardship

- *Fisheries Branch has reviewed this EAP and has a couple areas of concern that will probably be addressed through review by our colleagues in Water Quality and Department of Fisheries and Oceans.*
- *Long Lake Drain does provide spawning, nursery and feeding habitat for many Assiniboine fish species. Water quality parameters should meet or exceed the Manitoba Water Quality Standards, Objectives and Guidelines. There should be some monitoring requirements for ammonia and chlorine (when it is used). Effluent discharge should occur between June 15th and November 1st.*
- *Temporary and permanent erosion and sediment control measures need to be in place during construction of the lagoon and ditch until the areas are stabilized to ensure no sediment enters Long Lake Drain. Ongoing monitoring of the ditch and entrance to Long Lake Drain should be required.*
- *Our comments regarding discharge timing windows and construction works that could result in the addition of sediment to the creek do not take precedent over DFO's review. As long as DFO is involved in reviewing this proposal and manages fish habitat to meet the intent of their no net loss policy, provincial fisheries management interests should be met.*
- *Application of liquid effluent to land should be based on crop requirements and soil residuals. The proponent should be required to identify the land that will be used for effluent application, collect current soil, test phosphorus for each spread field and identify the type of crop that will be planted.*
- *The proponent should consider if SAR is expected to be elevated in the effluent. Elevated levels of SAR could limit the possibility of land application of the effluent.*

- *Erosion control measures should be implemented at the outlet of the lagoon and in the downstream drainage ditch.*
- *The Water Quality Management Section 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 it is recommended that the license require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director, for the Assiniboine River and associated waterways.*
- *In Section 2.0, it is mentioned that the proposed area receives water supply from well water. It is very important to know whether the well water receives any form of disinfection prior to use.*
- *The proposal refers to piped water distribution system and sewage collection system. Water distribution lines, water systems and sewage collection systems require certificate of approvals before construction. Please contact Office of Drinking Water.*
- *Will any monitoring be provided to check the integrity of the proposed lagoon cells?*

Proponent Response (November 6, 2006):

- The Colony has withdrawn their request for land application.
- It is agreed that erosion control measures be employed at the outlet of the lagoon as shown in drawings C01 and C02. Additionally, the discharge outlet into the Long Lake Drain should also be sufficiently protected against erosion.
- Those involved in a future watershed based management study, plan/or nutrient reduction program on the Assiniboine River are welcome to contact the Colony.
- According to our Colony contact, the well water is chlorinated, and softened. The water to be used for drinking is also distilled.
- The matter of the certificate of approvals for the water distribution system and sewage collection system are separate from the Environment Act Proposal and will be followed up with the appropriate regulatory body.
- Quality control on the integrity of the liner is conducted by Manitoba Conservation during commissioning of the lagoon.
- Consultation with the Department of Fisheries and Oceans (DFO) is documented in Section 8.6, which comments on the fish presence and habitat type in the Long Lake Drain. Discharge after June 15th allows for significant reduction of unionized ammonia and the passage of the fish spawning period.
- Monitoring of ammonia and chlorine will be performed as required by Manitoba Conservation.
- The lagoon is designed for 227-days of storage, i.e. storage is provided for the wastewater generated between November 1st – June 15th.
- Section 6.3 addresses the erosion and sediment control measures. Monitoring of the ditch and entrance to the Long Lake Drain will be performed as required by Manitoba Conservation.
- It is understood that DFO is a member of the TAC, and has thus reviewed the proposal.

Disposition:

- The proponent response was reviewed and the Department has no further concerns or comments.
- The draft Licence 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 Assiniboine River and/or associated waterways and watersheds.

Culture, Heritage and Tourism - Historic Resources

- *No concerns*

Health

Please ensure:

- *Prevention of pollutants or contaminated wastewater from entering sewage disposal, municipal ditch systems, adjacent yard site and wetland areas.*
- *odor control and monitoring*
- *gasoline and diesel regulations if applicable.*

Disposition:

- Operating the lagoon in a manner that minimizes offensive odours is required in the draft Licence.
- Effluent limits are consistent with the Manitoba Water Quality Standards, Objectives, and Guidelines.

Transportation and Government Services

- *No concerns*

Intergovernmental Affairs

- *No concerns.*

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.*
- *Health Canada and Fisheries and Oceans Canada are prepared to offer specialist advice on request. Environment Canada provided advice with respect to the project.*

Proponent Response to Environment Canada (November 6, 2006):

- Effluent quality monitoring of the new lagoon will be performed as required by Manitoba Conservation.

Disposition:

After receiving the additional information from the proponent, no further comments were received from Environment Canada. This was assumed to indicate that the original comments were satisfied.

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

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

PREPARED BY:

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