

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Town of Morris
PROPOSAL NAME: Morris Wastewater Treatment Lagoon Upgrade
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Waste/Scrap–Wastewater Treatment Lagoon
CLIENT FILE NO.: 50.30

OVERVIEW:

On February 20, 2002, the Department received a Proposal from Cochrane Engineering Ltd. on behalf of the Town of Morris for a Development to upgrade and operate the existing Morris wastewater treatment lagoon and to remove biosolids from the lagoon for application to farmland. The lagoon facility is located on the southwest quarter of Section 2-5-1 EPM. The proposed alterations include conversion of the two existing primary cells into a single primary cell, use of an existing, currently unused, secondary cell for wastewater stabilization during discharge of the larger existing secondary cell, and installation of an additional discharge pipe. Treated wastewater will be discharged twice annually between June 15 and November 1 to the Red River. The biosolids will be removed from the lagoon, transported in enclosed tanks to farmland, and injected into the soil. The proposed injection of biosolids will be applied to approximately 50 hectares of agricultural land, owned by George Bartel and Lena Bartel, located in NW 15-5-1 EPM and SE 16-5-1 EPM in the Rural Municipality of Morris.

The Department, on May 13, 2002, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Centennial Public Library, the South Central Regional Library in Morden, and the Town of Morris Office. As well, copies of the Proposal were provided to the Interdepartmental Planning Board and TAC members. The Department placed a public notification of the Proposal in the Altona Red River Valley Echo on Monday, May 20, 2002 and the Morris Scratching River Post on Thursday, May 30, 2002. The newspaper and TAC notification invited responses until June 14, 2002.

COMMENTS FROM THE PUBLIC:

No comments were received from the Public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture and Food

- *For future applications, there should be a detailed description of the soil series identified as the dominant series where the biosolids application is to be. Soil test results provide a 'snapshot in time' only and cannot solely indicate whether a piece of land can sustainably receive and process high rates of fertilizer for crop production.*
- *Passage of heavy equipment over moist fields can cause compaction which can inhibit subsequent crop production. It is very good that special care will be taken in timing field activities to minimize any adverse impact from compaction.*
- *Tables 7.4 and 7.5 have several errors including incorrect units for bulk density, conversion of ppm nitrate-N to kg/ha for the upper 60 centimetres which greatly underestimates the amount of residual N in soil at time of sampling.*

Disposition:

- *The revised calculations indicated that the level of nitrate-nitrogen in the upper 60 centimetres of the soil exceeds 100 kilograms per hectare. The Proponent was advised that a different location would have to be specified for biosolids application.*

Conservation - Sustainable Resource Management

- *The sites chosen for the biosolids injection are adjacent to the Morris River. Biosolids application should be restricted to a minimum of 15 metres from 1st order drains and 30 metres from 2nd order or higher order waterways. The slope of the land should be less than 5 per cent. Soil sampling should be conducted to ensure N and P rates do not exceed crop requirements.*
- *Spring discharges from the lagoon should not occur prior to June 15.*
- *Due to the proximity of the lagoon and the discharge route to the golf course, consideration should be given to fencing the lagoon and clearly posting the discharge route with "Caution-Sewage Effluent Drainage" signs. The current signs that state "Not suitable for drinking" do not adequately inform the public of the source of the water in the ditch. Alternatively, the drainage route through the golf course could be conducted through closed drains.*
- *The 100-year (1997) flood level at the lagoon site is 783.0 feet. During the 1997 flood the lagoon dikes were overtopped. The spread fields are also subject to flooding. Measures should be taken to avoid contamination of surface water if flooding occurs.*
- *The proposal identifies the growing of field peas or lentil crops. The town of Emerson proposal prohibited the growing of these crops and required a three-year monitoring program.*
- *The proponent should be required to actively participate in any future watershed based management study, plan or nutrient reduction program, approved by the Director, for the Red River and associated waterways and watersheds.*

Disposition:

- The attached draft Licence for the operation of the lagoon prohibits the discharge of the lagoon prior to June 15 of any year.
- The attached draft Licence for the operation of the lagoon includes specifications for fencing and warning signs along the effluent discharge route.
- The attached draft Licence for the operation of the lagoon includes a requirement to participate in a watershed or drainage basin management plan approved by the Director for the Red River and associated waterways and watersheds.
- The biosolids application site is not suitable. A new location must be found and an environmental assessment carried out on the revised proposal.

Culture, Heritage and Tourism - Historic Resources

- *No concerns.*

Health

- *There should be adequate odour control and fencing for safety reasons.*
- *Only treated effluent will be discharged into the drainage ditch and this will be posted as not suitable for drinking.*

Disposition:

- The attached draft Licence for the operation of the lagoon includes specifications for fencing and warning signs along the effluent discharge route.

Transportation and Government Services

- *No concerns.*

Intergovernmental Affairs

- *No comment.*

Canadian Environmental Assessment Agency

- *Application of The Canadian Environmental Assessment Act with respect to this proposal will be required. The coordinating contact is Mr. Pat McGarry, PFRA, Agriculture Canada, on behalf of Western Economic Diversification.*

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the alteration 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 Approvals Branch until the alteration has been completed.

The Proponent should identify new lands for the biosolids application and submit a Notice of Alteration for consideration under Section 14 of The Environment Act. A Licence should not be issued for biosolids application at this time.

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OVERVIEW:

On July 23, 2002, Environment Act Licence No. 2562 was issued for the alteration and operation of the Morris wastewater treatment lagoon. At that time it was recommended that a Licence should not be issued for biosolids application due to the high level of nitrate-nitrogen in the proposed receiving soil and concerns regarding potential flooding of the Morris River.

Additional information dated July 29, 2002 and August 9, 2002 indicated that one of the parcels of land had been resampled and the current level of nitrate-nitrogen was calculated to be 27 kilograms per hectare, which is below the maximum acceptable level of 100 kilograms per hectare. The Proponent requested approval to apply the biosolids only to the northwest quarter of section 15-5-1 EPM, which is located further from the Morris River than the other parcel of land originally identified for biosolids application. To further reduce potential impact to the river, the biosolids should be injected to a depth of not less than 15 centimetres.

RECOMMENDATION:

The Proponent should be issued a Licence for the biosolids application in accordance with the specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Red River Region.

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