

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Manitoba Conservation, Parks and Natural Areas
PROPOSAL NAME: Birds Hill Park Wastewater Treatment Lagoon
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Waste/Scrap Wastewater Treatment Lagoons
CLIENT FILE NO.: 166.10

OVERVIEW:

On September 10, 2004, the Department received a Proposal from Cochrane Engineering Ltd. on behalf of Manitoba Conservation, Parks and Natural Areas for the construction, remediation and operation of the existing wastewater treatment lagoon located on the southeast quarter of Section 18-12-5 EPM in Birds Hill Provincial Park. The treated wastewater will be discharged to Shkolny Creek which discharges into a municipal drainage ditch which eventually empties into the Red River Floodway.

On January 20, 2005, the Department received additional information, including revised design drawings for the proposed development.

The Department, on February 25, 2005, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the St. James-Assiniboia Public Library, the Manitoba Eco-Network and the Selkirk & St. Andrews Regional Library. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. The Department placed a public notification of the Proposal in the Winnipeg Free Press on Saturday, March 5, 2005. The newspaper and TAC notification invited responses until March 30, 2005.

COMMENTS FROM THE PUBLIC:

No responses were received from the public notification.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture and Food

- *No comments received.*

Conservation - Sustainable Resource Management

- *The proposal plans to decommission the secondary cell and restore the land to natural conditions. Was consideration given to converting the secondary cell to a constructed artificial wetland to provide additional polishing for the effluent prior to its ultimate discharge into Shkolny Creek? The report notes that the variable flow in Shkolny Creek limits the available habitat for fish however, this would be*

an excellent opportunity to utilize and demonstrate the effective wastewater treatment constructed wetlands provide.

- *The proponent should continue to discharge in October.*
- *Sediment and erosion control measures should be implemented during and after construction, until the site has stabilized to ensure no sediment enters the creek.*

Proponent Response (May 3, 2005):

- Yes. The proponent has considered this, and may be interested in pursuing it in the future.

Disposition:

After receiving the additional information from the proponent, these comments were satisfied and are no longer of concern:

Water Quality Management

- *The proponent estimates that 300m³ of truck haul is brought to the lagoon each year with 130 m³ arriving during the Folk Festival in July. Will all of the remaining 170 m³ be trucked to the wastewater lagoon in September (as indicated on page 4)? The proposed new primary cell will be considerably smaller than the existing primary cell. Will the wastewater lagoon have enough organic capacity to accept the September truck haul? At 5000mg BOD per litre of truck haul and a 50kg BOD/day maximum loading rate, I would estimate that the BOD load from the September truck haul would need to be spread out over about 17 days (assuming no additional sewage is brought to the wastewater lagoon).*
- *Table 2.6 assumes that each of the July loads (current flows, Folk Festival, groundwater infiltration) will be spread out over 31 days. Will the wastewater lagoon have enough organic capacity to accept the truck haul from the portable toilets if it is all received over the five day period of the Folk Festival? At 5000mg BOD per truck haul from the portable toilets and a 50 kg BOD/day maximum loading rate, I would estimate that the BOD load from the Folk Festival truck haul would need to be spread out over about 13 days (assuming no additional sewage is brought to the wastewater lagoon).*
- *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 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 Red River, Lake Winnipeg, and associated waterways and watersheds.*

Proponent Response (May 3, 2005):

- Yes.
- Yes. In September there will be no influent from the campground as the facilities are closed.
- Yes. The result may be a short-term shock loading scenario, but the relative loading compared to the facilities capacity provides buffering. The treatment capacity of the facility at this time of year is also significantly increased due to

the warmer and longer days. It is not expected that there will be any odour issues due to this short term loading.

Water Quality Response (May 18, 2005):

- *As per the Environment Act Proposal, the maximum loading rate for a primary cell is 56 Kg BOD/day/ha. Given the size of the proposed primary cell, the maximum loading rate for the facility will be 50.96 kg BOD/day. Since the Folk Festival will generate 650 kg of BOD over five days, some of the waste will need to be trucked elsewhere so as to not exceed the maximum loading rate. Similarly in September, the 170 m³ of truck haul will need to be either distributed over a period of time such that the maximum loading rate is not exceeded or trucked elsewhere. The consultant should note that as per the Environment Act Proposal, the modern washroom and shower facilities in the campground, serviced via lift stations and forcemains, operate from May through September. Birds Hill Park staff confirmed that the modern washrooms and shower facilities will remain open through the first week in October. Therefore, influent wastewater from the modern washrooms and shower facilities must also be considered when determining the amount of truck haul that can be accepted per day in September at the proposed facility.*

Proponent Response (June 2, 2005):

- *It is agreed that the hauling of the wastewater in September and from the Folk Festival's portable toilets over the five-day period may temporarily exceed the daily design loading rate of the facility. The facility is sized to account for these brief periods of shock loading since during the remaining 170+ days of operation the facility is loaded to less than 45% capacity. From past experience, the addition of 150 to 170 m³ of septage to an 11,6000 m³ cell results in significant buffering, hence the original assumption of calculating the loading of the hauled septage over a monthly period.*
- *The 56 kg/d/ha loading rate is a climate-specific figure used in design to minimize odours during spring breakup in a typical community wastewater facility in this portion of the province. During the summer months, with the long days of sunlight and higher temperatures, treatment rates are much higher than 56 kg/d/ha. It is during this time that the facility will be shock loaded for a very brief period of time with a low volume of septage, thus, odours are not expected to be an issue. However, it is typically stated in most Environment Act Licences, "The Licencee shall operate and maintain the wastewater treatment lagoon and wastewater collection system in such a manner that the release of offensive odours is minimized." Where, if it is in the opinion of the Director that the facility is becoming overloaded due to the hauling practices during the Folk Fest or at the end of the season, the proponent can cease hauling to their facility, and any excess septage can be hauled to the City's North End Wastewater Plan for disposal for a nominal fee.*

Disposition:

After receiving the additional information from the proponent, these comments were satisfied and are no longer of concern:

Culture, Heritage and Tourism - Historic Resources

- *No concerns.*

Health

- *No concerns.*

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 CEEA will not be required.*
- *DFO has offered to provide specialist advice with respect to the project and has provided information regarding additional measure to be incorporated into the plans.*

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the construction, remediation 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.

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