

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: 4345569 Manitoba Ltd.
PROPOSAL NAME: River's Edge Subdivision Wastewater Treatment Plant
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Waste/Scrap Wastewater Treatment Lagoons
CLIENT FILE NO.: 5079.00

OVERVIEW:

On November 17, 2004, the Department received a Proposal from Stantec Consulting Ltd. on behalf of 4345569 Manitoba Ltd. to construct and operate a Development consisting of a wastewater collection system and an extended aeration wastewater treatment plant (WWTP). The WWTP will be located in Parcel A of Plan No. 42931 WLTO in River Lots 51 to 53 in the Parish of St. Paul in the Rural Municipality of West St. Paul and will serve the proposed River's Edge Subdivision. The treated wastewater will be discharged via sewer to an outfall which discharges into the Red River.

On December 24, 2004, the Department received additional information necessary for the review process from the proponent.

The Department, on January 7, 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 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, January 15, 2005. The newspaper and TAC notification invited responses until February 14, 2005.

COMMENTS FROM THE PUBLIC:

No comments received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture and Food

- *No concerns.*

Conservation - Sustainable Resource Management

- *Questions have been raised regarding plant facilities for testing and cleaning of test equipment; tests to ensure proper plant operation; routine plant cleaning with no water supply in the plant; and safety equipment.*

- *The proponent should provide the appropriate design of the Extended Aeration Tank system, or an explanation of the steps that will be taken to support the statement that leaks from the underground tank system will be minimized.*
- *The proponent should provide information supporting the statement on Page 2 of the Report that allowance has been made in the design to provide nitrification of the influent wastewater during the summer months (May – September) to achieve <1mg/L of NH₃ – N in the effluent.*
- *The proponent should provide appropriate signage along the Red River in accordance with the requirements of the Environmental Approvals Branch.*
- *The proponent will need authorization from DFO prior to proceeding with this project.*
- *The directional drilling component should adhere to the Watercourse Crossings and Hydrostatic Testing documents produced by the Canadian Association of Petroleum Procedures. In particular, there should be a drilling mud contingency plan in place in the event drill mud seeps into the river or there is a washout.*
- *The proposal lacks any detail on the river's physical features found at the outfall site and the presence/absence of clams and fish. While the mixing zone appears to be small there could be an effect on clams if located in the immediate area.*

Proponent Response (March 4, 2005):

- A groundwater well to be drilled in the vicinity of the proposed STP will be supplying water for plant washing etc. A hose assembly will be provided for this purpose and will be detailed as a part of the tender drawings. The facility will not have any on-site laboratory and all test samples would be sent to an independent laboratory in Winnipeg. Equipment such as DO meter and safety equipment will be detailed in the tender documents.
- The proposed Extended Aeration (ES) system is a fabricated steel package plant. The tanks are shop tested for integrity and will also be leak tested after installation and prior to backfilling. Use of steel in package sewage systems is fairly common.
- Removal of ammonia (nitrification) for this facility is not an issue as confirmed by Water Quality Management Section (refer to comments by Nicole Armstrong dated January 28, 2005). Since the EA process is generally operated with a high solids retention time (SRT), which promotes nitrification during the summer months, the aeration blowers are sized to provide the additional oxygen demand.
- Proper signage in accordance with the Environmental approvals Branch requirements will be provided.
- DFO has been fully apprised about this project with particular reference to the construction of the river outfall. Please refer to the attached correspondences.
- The outfall/land drainage sewer line would be installed via an open cut type excavation and not by directional drilling. DFO has been made aware of this via letter dated February 17, 2005 along with the necessary drawings (please see attached).
- The issue regarding the river's physical features has been addressed directly to DFO within the attached letter dated February 17, 2005 in which it was described that the riverbank is comprised of natural vegetation with no overhanging trees as shown in the appended photo. In regard to clams/fish we are not aware of these being a

concern in this area of the Red River. We contacted the Wildlife Branch and Habitat Management Branch at Manitoba Conservation; both were unaware of concerns in this regard.

Disposition:

Following receipt of additional comments from the proponent, all concerns have been addressed.

Water Quality Management – Manitoba Water Stewardship

- *The proponent has used the outdated Manitoba Surface Water Quality Objectives (Williamson 1988) for ammonia. However, I have rerun the analyses with the updated Manitoba Water Quality Standards, Objectives, and Guidelines (Williamson 2002draft) and based on the effluent quality and quantity data provided by the proponent, 30Q10, 7Q10, and 1Q10 ammonia objectives will be met at all times.*
- *No information is provided regarding the total phosphorus or total nitrogen concentrations of the effluent. In light of the Lake Winnipeg Action Plan, it may be prudent for the Department to consider minimizing nutrients from this facility.*
- *The Water Quality Management Section is concerned with any discharges that have potential to impact the aquatic environment and/or restrict present and future uses of the water. Therefore, it is recommended that the licence 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 (March 4, 2005):

- The raw sewage total phosphorus (TP) and total nitrogen (TN) levels are estimated to be 6mg/l and 40mg/l respectively. The proposed plant is not designed for P removal or TN. The amount of treated effluent discharged is insignificant compared to the rivers flow. In addition, we are not aware of any treatment plant (including City of Winnipeg) either upstream of downstream of the discharge point that have implemented a treatment system employing both P and TN removal. However, there will be some removal due to metabolic processes involved in carbonaceous BOD removal. This is estimated to be 10 – 30% for TP and 30% for TN.

Disposition:

- The draft Licence includes effluent quality discharge criteria in accordance with the draft Manitoba Water Quality Standards, Objectives and Guidelines.

Culture, Heritage and Tourism - Historic Resources

February 14, 2005:

- *A significant heritage site is recorded along the Red River in Lots 53 to 57 Parish St. Paul. A second heritage site is recorded in River Lot 50.*
- *Under Section 12(2) of The Heritage Resources Act, if the Minister of Culture, Heritage and Tourism has reason to believe that heritage resources are known, or thought likely to be present, on lands that are to be developed, then the*

owner/developer may be required to conduct at his/her own expense, a heritage resource impact assessment and mitigation, if necessary, prior to the project's start.

- *The proponent must contact the Historic Resources Branch in order to arrange a mutually acceptable heritage resource management strategy.*

February 23, 2005:

- *Please be informed that I have met with Mr. Bill McGarry of River's Edge Development Corporation to discuss a heritage resource management strategy.*
- *It has been agreed that Historic Resources Branch staff will conduct a preliminary Heritage Resource Impact Assessment of the subject property as soon as possible once snow has melted in the spring of 2005. In the interim the Branch has determined that the sewer outfall portion of the project can proceed as planned. Mr. McGarry will contact the Branch prior to construction of River's Edge Drive in order for Branch staff to monitor road bed excavation. Should significant heritage resources be identified on the property, River's Edge Development Corporation is aware that mitigation would be required at their expense.*

Proponent Response (March 4, 2005):

- The Owner has submitted documentation required for a heritage management strategy to the Historic Resources Branch and the Environmental Approvals Branch.

Disposition:

- The Environmental Approvals Branch did not receive any documentation from the Owner as indicated by the proponent in their March 4, 2005 response.
- The Heritage Resources Branch will work with the proponent to ensure that mitigation will take place should any heritage sites be identified.

Health

- *How can the proposed nitrogen and phosphorus content of the effluent be made to conform with recent provincial targets for reducing nutrients in Lake Winnipeg to pre-1970 levels, in accordance with the Manitoba Water Stewardship Lake Winnipeg Action Plan?*
- *Are optimal odor control methods planned?*

Proponent Response (March 4, 2005):

- Removal of ammonia (nitrification for this facility is not an issue as confirmed by Water Quality Management Section (refer to comments by Nicole Armstrong dated January 28, 2005). With respect to overall nitrogen and P removal, please refer to the response to Water Quality Management.

Disposition:

- The draft includes effluent quality discharge criteria in accordance with the draft Manitoba Water Quality Standards, Objectives and Guidelines.

Transportation and Government Services

No concerns but would like to note the following:

- *A permit application has been heard by the Highway Traffic Board and is currently under consideration for the change in use of land and construction of buildings within the 38.1 m (125 ft.) wide control area along the edge of Provincial Truck Highway (PTH) 9 right-of-way.*
- *Detailed design plans should be forwarded to the Department as they become available to ensure that drainage from the site will not adversely impact PTH 9.*

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.*
- *Comments were received from DFO and Transport Canada requested additional information. The proponent provided additional information which satisfied the concerns and has agreed to impose the recommendations provided by DFO and Transport Canada.*
- *Environment Canada would be able to offer specialist information with respect to the project review.*

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the construction and operation of the Development in accordance with the limits, specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Approvals Branch until the facility has been commissioned.

PREPARED BY:

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March 30, 2005

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