

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPOSER: Rural Municipality of Woodlands
PROPOSAL NAME: Woodlands Wastewater Treatment Lagoon Upgrade
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon–Waste/Scrap
CLIENT FILE NO.: 3388.10

OVERVIEW:

On December 20, 2012 the Department received a Proposal from J.R. Cousin Consultants Ltd. on behalf of the Rural Municipality (RM) of Woodlands pursuant to *The Environment Act* to upgrade the existing Woodlands wastewater treatment lagoon located in the southeast quarter of Section 23-14-2 WPM in the RM of Woodlands. The proposed development will consist of construction of a new primary cell, a new truck turnaround and spillway, and converting the existing primary cell into storage cell # 2. Treated effluent will be discharged between June 15th and November 1st of any year into East Branch Sturgeon Creek via the lagoon perimeter ditch and the municipal ditch. East Sturgeon Creek eventually merges into Sturgeon Creek which empties into the Assiniboine River.

The proposal was incomplete. On January 8, 2013, Manitoba Conservation and Water Stewardship requested additional information to the proponent's consultant. On March 25, 2013, the consultant submitted additional information.

On April 18, 2013, Manitoba Conservation and Water Stewardship placed copies of the Proposal in the Public Registries located at Legislative Library, 200 Vaughan St., Winnipeg; Millennium Public Library, 4th Floor, 251 Donald St., Winnipeg; Manitoba Eco-Network, 3rd Floor, 303 Portage Ave., Winnipeg; R.M. of Woodlands Municipal Office, 57 Railway Avenue, Woodlands; and Online Registry, <http://www.gov.mb.ca/conservation/eal/registries/index.html>. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. The Department placed public notification of the Proposal in the Stonewall Argus-Teulon Tribune on Thursday, April 18, 2013. The newspaper and TAC notifications invited responses until May 17, 2013.

On June 10, 2013, Manitoba Conservation and Water Stewardship forwarded requests for additional information from the TAC to the proponent's consultant. On July 3, 2013, the consultant submitted responses to the comments and requests from the TAC. On July 17, 2013, consultant's responses were distributed to the participating TAC for review and comment.

On August 21, 2013, Manitoba Conservation and Water Stewardship forwarded requests for additional information from the TAC to the proponent's consultant. On October 24, 2013, the consultant submitted responses to the comments and requests from the TAC.

On November 18, 2013 consultant's responses were distributed to the participating TAC for review and comment.

All additional information necessary for the review was placed in the Public Registries

COMMENTS FROM THE PUBLIC:

No comments were received from the public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE (TAC):

Manitoba Infrastructure and Transportation– Highway Planning and Design Branch, Environmental Services Section (May 6, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship - Lands Branch and Sustainable Resource and Policy Management Branch (May 23, 2013)

- *No concerns*

Manitoba Local Government - Community & Regional Planning (May 14, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship – Office of Drinking Water (May 15, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship – Wildlife Branch (April 18, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship, Regulatory Services Branch, Water Use Licensing Section (April 18, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship – Parks and Natural Areas Branch (May 6, 2013)

- The Branch has no comments to offer as this does not impact any parks or ecological reserves

Manitoba Conservation and Water Stewardship, Fisheries Science and Fish Culture Section, Fisheries Branch (May 5, 2013)

- Fisheries Branch has reviewed this request to *upgrade the existing Woodlands wastewater treatment lagoon located in the southeast quarter of Section 23-14-2 WPM in the R.M. of Woodlands. The proposed alterations to the development consist of construction of a new primary cell, a new truck turnaround and spillway, and*

converting the existing primary cell into storage cell # 2. Treated effluent will be discharged between June 15th and November 1st of any year into East Branch Sturgeon Creek via the lagoon perimeter ditch and the municipal ditch. East Sturgeon Creek eventually merges into Sturgeon Creek which empties into the Assiniboine River.

- *The proponent indicates implementing erosion and sediment control measures as required during construction and until the site has stabilized. They are proposing to meet phosphorous limits through trickle discharge (~8.4 L/sec) over a six week period and given the length of the discharge route, they expect natural uptake of nutrients by the plants and soils will occur.*
- *As noted in the proposal East Branch Creek provides habitat for small bodied fish and Sturgeon Creek provides habitat for both small and large bodied fish species. With the construction mitigation measures proposed (particularly the implementation of erosion sediment control measures until the site has re-vegetated) and as long as the effluent meets or exceeds Manitoba Water Quality's Standards, Objectives and Guidelines fisheries concerns should be addressed.*
- *We feel it would be beneficial to include as a license condition, the requirement to implement trickle discharge as the nutrient reduction strategy along with the requirement to monitor to confirm the proponent's prediction that nutrient uptake does occur. We do however defer to the recommendations of our colleagues in Water Science Management on this matter.*

Proponent Response (July 3, 2013)

- By way of this letter the proponent will be made aware of the above comments.
- By way of this letter and the EAP submission, the proponent will be made aware of the requirements for demonstrating the effectiveness of the trickle discharge for use as a nutrient reduction strategy. The proponent will adhere to the requirements of the Environmental Licence in regards to trickle discharge as a nutrient management strategy.

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Fisheries Branch.

Manitoba Conservation and Water Stewardship, Water Quality Management Section, Water Science and Management Branch (May 6, 2013)

- *The following effluent standards should be in place for RM Woodlands lagoon as per the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011).*
 - *BOD₅ 25 mg/L*

- *Total suspended solids 25 mg/L*
- *Fecal Coliforms or Escherichia coli 200 MPN / 100mL*

- *Has the Proponent considered effluent irrigation as a discharge option?*

- *The Manitoba Water Quality Standards, Objectives and Guidelines Regulation requires new or expanding wastewater treatment facilities to meet a 1 mg/L phosphorus limit or implement a nutrient reduction strategy. The proposal states that to meet the Manitoba Water Quality Standards, Objectives and Guidelines Regulation trickle discharge will be implemented as a nutrient reduction strategy. The proponent must demonstrate that this strategy will reduce phosphorus loads equivalent to implementing a 1 mg/L phosphorus limit prior to entering the municipal ditch. This additional information is required before trickle discharge can be approved as a nutrient reduction strategy.*

- *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.*

Proponent Response (July 3, 2013)

- As described in Section 2.5.9.1 of the EAP submission, the system will be designed to meet the above effluent quality standards.

- Effluent irrigation was considered in the preliminary planning stages of the project as the surrounding lands are agricultural fields. This option however, was dismissed for the following reasons:
 - It would require extensive operating effort and undesired costs on the part of the proponent for the required infrastructure (pumps, irrigation equipment, and electricity).
 - During a wet year, irrigation may not be required.
 - Only certain crops would benefit from irrigation and therefore the lands would be limited to those crops.
 - There is a possibility of over applying wastewater if the lands do not require certain nutrients, therefore careful operation would be required.
 - There is the possibility of salt accumulation on the land surface if the water softeners are utilized in the community.

- By way of this letter and the EAP submission, the proponent will be made aware of the requirements for demonstrating the effectiveness of the trickle discharge along the discharge route to reduce phosphorus

levels to 1 mg/L or less. As per Section 2.5.9.2 of the EAP submission, the discharge route will include the length of 3r^d Order Drain. Therefore the phosphorus limit will be reduced to levels of 1 mg/L or less in the provincial drain and not necessarily prior to entering it. The proponent will adhere to the requirements of the Environmental Licence in regards to trickle discharge as a nutrient management strategy.

- By way of this letter, the proponent will be made aware of the request to participate in any future watershed based management study, plan and/or nutrient reduction program, as approved by the Director".

Further Comments (August 6, 2013)

- *The RM of Woodlands must define a monitoring and evaluation plan to demonstrate the effectiveness of the trickle discharge nutrient reduction strategy for phosphorous. A year-end report confirming concentration and total removal rates along the length of the municipal ditch and third order drain should be submitted by the RM of Woodlands to the Director.*
- *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.*

Proponent Response (October 24, 2013)

- By way of this letter response and previous correspondence with MB Conservation and Water Stewardship, the RM of Woodlands is aware that an effluent discharge monitoring plan is to be submitted to the Director of Water Quality Management Section for approval prior to the lagoon being discharged, to ensure phosphorus reduction is occurring along the proposed discharge route. The proponent is aware of the requirement for submitting a year-end report confirming concentrations and phosphorus removal rates along the length of the municipal ditch and third order drain.
- By way of this letter response, the proponent is aware of the request to participate in any future watershed based management study, plan and/or nutrient reduction program, as approved by the Director".

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Water Science and Management Branch.

COMMENTS FROM FEDERAL REPRESENTATION:

- The application of the *Canadian Environmental Assessment Act (the Act)* will not be required for this project.

PUBLIC HEARING:

- A public hearing is not recommended because no comments were received from the public.

CROWN-ABORIGINAL CONSULTATION:

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with First Nations, Métis communities and other Aboriginal communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or Aboriginal right of that First Nation, Métis community or other Aboriginal community.

There is no aboriginal community nearby the lagoon and would be no infringement of aboriginal or treaty rights under Section 35 of the Constitution Act, 1982. Therefore, it is concluded that Crown-Aboriginal consultation is not required for the project.

RECOMMENDATION:

The Proponent should be issued a Licence for the construction and operation of the wastewater treatment lagoon in accordance with the specifications, limits, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Approvals Branch until the liner testing/inspection has been completed and the Development is commissioned.

PREPARED BY:

Rafiqul Chowdhury, M.Eng., P.Eng.
Environmental Engineer
Mines and Wastewater Section
Environmental Approvals Branch
Manitoba Conservation and Water Stewardship
January 21, 2014

Telephone: (204) 945-2614
Fax: (204) 945-5229
E-mail Address: rafiqul.chowdhury@gov.mb.ca