

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Town of Manitou
PROPOSAL NAME: Town of Manitou Water Treatment Plant
and Raw Water Pipeline Upgrades

CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Transportation and Transmission - Pipelines

CLIENT FILE NO.: 5667.00

OVERVIEW:

The Proposal was received on August 23, 2013. It was dated August 19, 2013. The advertisement of the proposal was as follows:

“The Manitoba Water Services Board has filed an Environment Act Proposal on behalf of the Town of Manitou for the construction and operation of a new raw water pipeline from the Mary Jane Reservoir northwest of Manitou to the Town, and for the construction and operation a new filtration water treatment plant adjacent to the current plant. The new plant would use a combination of ultrafiltration and reverse osmosis treatment to treat the water, with reject water being discharged through holding ponds to Mary Jane Creek, which flows to the Pembina River. The new plant would have a raw water capacity of 14 litres per second, and a treated water capacity of 10.5 litres per second. Construction of the upgrades would take place in 2014-2015 subject to the availability of funding.”

The Proposal was advertised in the Morden Times on Thursday, September 26, 2013 and in the Manitou Western Canadian on Tuesday, October 1, 2013. It was placed in the online public registry, the Legislative Library and the Millennium Public Library (Winnipeg) public registries. The Proposal was distributed to TAC members on September 26, 2013. The closing date for comments from members of the public and TAC members was November 1, 2013.

COMMENTS FROM THE PUBLIC

No public comments received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE

Manitoba Conservation and Water Stewardship – Watersheds and Protected Areas Branch and Lands Branch

No concerns.

Manitoba Conservation and Water Stewardship – Parks and Natural Areas Branch

No comments to offer as this does not impact any parks or ecological reserves.

Manitoba Conservation and Water Stewardship – Wildlife Branch

As with the RM of Cartier (Headingly) Water Treatment Plant draft licence, the following conditions would be appropriate for these licences as well:

15. The Licencee shall not, during construction and operation of the Development, remove, destroy or disturb species listed as rare, endangered, or of special concern, or their habitats. These species are listed in *Manitoba Regulation 25/98* respecting *Threatened, Endangered and Extirpated Species* or any future amendment thereof, and in the federal Species at Risk Act.
18. The Licencee shall, during construction and maintenance of the Development, prevent the introduction and spread of foreign aquatic and terrestrial biota by cleaning equipment prior to its delivery to the site of the Development.

The Central Region Wildlife Section has no further suggested licence conditions.

Disposition:

These recommendations can be addressed as licence conditions.

Manitoba Conservation and Water Stewardship – Water Science and Management Branch, Water Quality Management Section

It is noted that estimated water required to meet demand with the new water treatment plant and additional water service connections will be approximately triple the current allocated volume. Some confirmation that sufficient capacity exists within the reservoir for the estimated demand and that additional water taking will not result in adverse effects on biota within the reservoir and downstream Mary Jane Creek would be helpful.

It is noted that highly mineralized reject water will be pumped to existing lime settling ponds which will be expanded. Effluent will be released twice per year. While 'Appendix G' provides some projection of reject quality it does not provide data on all chemical constituents that could be of concern. For example data provided in Appendix H shows both total nitrogen and phosphorus in raw water to be at sufficient concentrations to promote frequent and excessive blooms of algae in surface water. It is anticipated the reverse osmosis system would likely further concentrate these constituents thus it is recommended that the holding cells be designed, constructed and managed to maximize nutrient assimilation and removal. Further it is recommended that discharge from the holding cells meet a discharge limit of a maximum of 1.0 mg/L total phosphorus.

It is also recommended that a license require some initial monitoring of additional parameters from discharge from the holding cells. Such analysis should include dissolved ions identified in Appendix G as well as total and dissolved phosphorus, nitrate, ammonia, dissolved and total nitrogen and a complete scan of metals and metalloids.

Disposition:

Several of these comments can be addressed as licence conditions. The anticipated raw water annual withdrawal from the Mary Jane Reservoir is approximately 175% of the existing volume (138 dam³ projected versus 79 dam³ currently), and the anticipated withdrawal is approximately 38% of the estimated annual inflow into the reservoir. The reservoir does not provide a riparian outflow, and so discharges downstream only periodically when the reservoir spills. Accordingly, the additional withdrawal is not expected to significantly affect reservoir or downstream habitat conditions.

As with other constituents removed from the treated water, nutrients will be concentrated in the reject water, and it is unlikely that these or other dissolved constituents will be removed in the settling ponds. Because the reject water will be returned to the waterway system which supplies raw water for the treatment plant, it is anticipated that mixed concentrations in the watercourse downstream of the holding ponds should not be significantly different than upstream concentrations. The use of the settling ponds could allow a substantially higher rate of discharge of the reject water than with other water treatment plants that discharge reject water at small steady rate, and this could lead to significant increases in mixed concentrations during pond discharge events. It is proposed that this possibility be addressed by requiring long period/low discharge rates from the holding ponds, and by monitoring for a wider suite of parameters, including nutrients. Further adjustments in the operation of the ponds can be required if monitoring results indicate that reject water is impairing the receiving watercourse.

Manitoba Conservation and Water Stewardship – Fisheries Branch

Fisheries Branch has reviewed this proposal to upgrade the Town of Manitou WTP. As per the advertisement description the proposal includes the:

construction and operation of a new raw water pipeline from the Mary Jane Reservoir northwest of Manitou to the Town, and for the construction and operation a new filtration water treatment plant adjacent to the current plant. The new plant would use a combination of ultrafiltration and reverse osmosis treatment to treat the water, with reject water being discharged through holding ponds to Mary Jane Creek, which flows to the Pembina River. The new plant would have a raw water capacity of 14 litres per second, and a treated water capacity of 10.5 litres per second.

The Town will need to amend their Water Rights Licence increasing the total quantity of water to be used in one year from 117.19 cubic decameters to 138 cubic decameters and increasing the pumping rate from 5 L/s to 14 L/s. The proponent indicates using horizontal directional drilling to install the pipeline at the drain and river outlets.

Fisheries Concerns:

It would appear from the information that has been provided that the proposed mitigation, which typically are included as licence clauses, should address many fisheries concerns. We'd like to see a clause requiring adherence to DFO's direction drilling operational statement. While the reject and membrane concentrate is being discharged to sludge ponds prior to discharging to a 1st order drain which enters Mary Jane creek as Mary Jane Creek is fish bearing we would be supportive of a monitoring clause as TDS, chloride and a few other parameters are considerably higher than background. The proponents indicate discharging from the sludge ponds twice per year. Will the discharge window be similar to the typical effluent discharge window of June 15th to October 31st?

We would also request a clause to address minimizing the spread of aquatic and terrestrial invasive species. The following or a re-iteration has been included in other licences. The Licencee shall, during construction and maintenance of the Development, prevent the introduction and spread of foreign aquatic and terrestrial biota by ensuring all equipment, including transport equipment, is clean before use at each location.

Disposition:

These comments can be addressed through licence conditions.

Manitoba Conservation and Water Stewardship – Office of Drinking Water

The Owner of this project will have to apply for and get a Permit to Construct or Alter a Public Water System from Office of Drinking Water before beginning construction of the work. Beyond this point, I found no other cause for concern respecting drinking water safety with the EAP or proposed work.

Disposition:

This information was provided to the consultant for the project and can be addressed in a licence condition.

Manitoba Conservation and Water Stewardship – Water Use Licensing Section

No comments or concerns.

Manitoba Conservation and Water Stewardship – Water Control Works and Drainage Licensing Section

On behalf of the *Water Control Works and Drainage Licensing Section*, there are no concerns.

Please remind the proponent that all water control works require licensing under the *Water Rights Act*. Any inquiries in this regard may be directed to the local *Water Resource Officer*. Their contact information may be found at:

http://www.gov.mb.ca/conservation/waterstewardship/licensing/pdf/areas_of_focus_jan_23_12.pdf

Licensing of yard and field approaches (access points) are the responsibility of either the municipality, or *Manitoba Infrastructure and Transportation*, whichever is applicable.

The drainage and/or alteration of permanent and semi-permanent wetlands is not permissible under the *Water Rights Act*.

Disposition:

This information was provided to the consultant for the project.

Manitoba Infrastructure and Transportation - Highway Planning and Design Branch, Environmental Services Section

MIT has reviewed the proposal noted above and while we do not have concerns with the development as proposed, we would like to offer the following reminders:

- The proposed project may require a permit from the MIT for any new, modified or relocated access connection onto any provincial road or highway. A permit may also be required for:
 - o any construction, above or below ground level, within 38.1 m (125 if) from the edge of the right of way of any provincial road or highway;
 - o any plantings within 15.2 m (50 if) from the edge of the right of way of any provincial road or highway; or
 - o discharge of water or other liquid materials into the ditch of any provincial road or highway.
- Should any of the water/sewer lines cross under or within the right of way of any provincial road or highway, an agreement with MIT will be required.

For further information on permit application and utility agreements, please contact Wes Turk at Wes.Turk@gov.mb.ca.

Disposition:

This information was provided to the consultant for the project.

Canadian Environmental Assessment Agency

The project will not be subject to CEAA 2012 so the Agency will not be providing any comments.

ADDITIONAL INFORMATION

Additional information is not required to address Technical Advisory Committee comments.

PUBLIC HEARING

As no public comments requesting a hearing were filed, a public hearing is not recommended.

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.

The proposal involves the installation of approximately 11.5 km of buried pipeline on road allowances in an agricultural area between Mary Jane Reservoir and the water treatment plant, and the conversion of the water treatment plant to an ultrafiltration/reverse osmosis treatment process. Settled wastewater from the treatment process is anticipated to contain elevated concentrations of parameters removed from the raw water, but the settled wastewater would be returned to the waterway where the water originated from. As a result, changes in concentrations in the mixed flow of the waterway are not expected to change significantly. Since resource use is not affected by the project, it is concluded that Crown-Aboriginal consultation is not required for the project.

RECOMMENDATION

It is recommended that the Development be licensed under *The Environment Act* subject to the limits, terms and conditions as described on the attached draft Environment Act Licence. It is further recommended that enforcement of the Licence be assigned to the Central Regional office of the Environmental Compliance and Enforcement Branch.

PREPARED BY:

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December 19, 2013
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