

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPOSAL NAME: Rural Municipality of Whitehead
Alexander Water Treatment Plant -
Concentrate Disposal

CLASS OF DEVELOPMENT: One
TYPE OF DEVELOPMENT: Waste Disposal - Water Treatment Plants
(Wastewater)

CLIENT FILE NO.: 5149.00

OVERVIEW:

The Proposal was received on October 13, 2005. It was dated October 12, 2005. The advertisement of the proposal was as follows:

“A Proposal has been filed by the Manitoba Water Services Board on behalf of the Rural Municipality of Whitehead for the disposal of reject water from the Alexander water treatment plant to a drain leading to the Alexander-Griswold Marsh. The reject water will be produced by the community’s nanofiltration membrane water treatment plant. The treatment process rejects approximately 25% of the raw water entering the plant, and concentrates constituents filtered from the treated water in the reject water. It is proposed that between 24,000 litres (average day) and 44,000 litres (peak day) per day of reject water would be discharged initially. At peak treatment plant capacity in 20 years, and including possible water supply to adjacent rural areas, reject water volumes could approximately double. The reject water would contain approximately three times the concentration of hardness, iron, manganese, calcium and sulphate that the raw well water to be treated by the plant contains. Implementation of the project is proposed for the winter of 2005/2006.”

The Proposal was advertised in the Brandon Sun on Saturday, December 3 2005. It was placed in the Main, Eco-Network, Winnipeg Public Library and Western Manitoba Regional Library (Brandon) public registries. The Proposal was distributed to TAC members on November 29, 2005. The closing date for comments from members of the public and TAC members was January 5, 2006.

COMMENTS FROM THE PUBLIC:

Murray J. Owens: This drainage of water into a drainage ditch of the R.M. of Whitehead and Ducks Unlimited flows past the south end of my land in SW 16-10-21W. I have had nothing but grief with this ditch since it was put in. It never drains water low

enough to allow my land to dry. With the ditch blocked 90% of the time, this water backs up and floods my land, both the south side of the tracks and the north side.

I have been unable to hay this section south of the tracks for three years now. I have been after Ducks all along and the provincial government Highways Branch and the R.M. and just get laughed at – nothing is ever done.

I have had to get my lawyer three years ago to make them get this water running, but not much has been done. Now with this water outlet, thousands of litres of more water, there is going to be more water problems. I get more help to get water running from provincial highways at #250 highway south to Souris than anyone else. But I have to always inform them of trouble. When they clean culverts out for beaver water can't run east because of blockage.

I don't see why I should have to put up with this anymore. If there is not immediate correction done, there is going to be trouble from my lawyer, who is already working on this. Even R.M. councillors don't know what is going on with this water outlet, as I had a councillor phone me to see what this water thing was for. If you want more information, please contact me at (204) 752-2245 or better, come out and see me.

Disposition:

Additional information was requested concerning pre-existing drainage issues along the concentrate discharge route.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Conservation – Sustainable Resource Management

No concerns.

Manitoba Water Stewardship

- The process diagram submitted to Office of Drinking Water on Sep. 01/2005 indicates the membrane filtration system to be Reverse Osmosis. In this document that membrane filtration is indicated to be Nanofiltration. Clarification is required regarding the above discrepancy.
- A raw water flow of 6.7 litre/sec is required (instead of 6.25 litre/sec) if the desired treated water flow is 5.0 litre/sec while the recovery rate is 75% (section 3.2). Thus the total volumes of treated and concentrate water will differ from the given values. The supplied process data sheet shows the correct feed, product and concentrate rates.
- If the concentrate is released at times other than spring runoff or precipitation events it is very likely that there will be no runoff to dilute the concentrate. Therefore, the concentrate stream that reaches the marsh could affect water quality.

- We are concerned that iron concentrations in the concentrate exceed the Manitoba Water Quality Guidelines for the protection of aquatic life. In addition, total dissolved solids concentrations seem quite high and are of concern given the relatively large volumes of continuously discharging concentrate. The proponent has not provided any information on the dilution rate in the receiving environment. What concentrations of iron and total dissolved solids are expected to reach the Little Souris River?
- As Ducks Unlimited is responsible for the marsh they should be offered the opportunity to provide comment on this proposal.
- No specific details on the soil or groundwater conditions along the route of the proposed pipeline are provided. It is expected that shallow soils will be sandy textured with groundwater potential similar to that within the community of Alexander (shallow, low capacity water wells).
- The construction and operation of the concentrate discharge line are not expected to impact the local soil and groundwater resources along the route of the proposed pipeline. However, in the event of leakage of concentrate from the pipeline, the proponent should provide a description of the proposed environmental practices to be employed to prevent or mitigate adverse implications to the local soils and groundwater resources.

Disposition:

Additional information was requested to address many of these comments. Clarification had already been obtained concerning concentrate discharge volumes. Ducks Unlimited did not respond to the public notice for the project. Comments concerning soil and groundwater conditions along the pipeline route did not require follow-up.

Historic Resources Branch No concerns.

Community Planning Services Branch No concerns or objections.

Highway Planning and Design Branch No concerns.

Medical Officer of Health – Assiniboine and Brandon RHAs Section 3.2 of the proposal states that the minerals in the concentrate “are naturally occurring and have no known health implications”. It is assumed that the minerals in question include those identified in Table 2.1. As some naturally occurring minerals can have health implications eg. lead, it would be more accurate to state that CDWQ MAC guidelines do not exist for the parameters listed in Table 2.1. However, as the concentrate will be at least 3x more concentrated than the raw water (personal communication B. Webb

December 16, 2005), there may be exceedences in CDWQ guidelines for aesthetic objectives.

Disposition: Concern about the quality of the concentrate can be addressed through licence conditions requiring monitoring.

Canadian Environmental Assessment Agency I have completed a survey of federal departments with respect to determining interest in the project noted. I can confirm that the project information that was provided has been reviewed by all federal departments with a potential interest. Based on the responses to the survey, the application of the Canadian Environmental Assessment Act (the Act) is not required for this project.

ADDITIONAL INFORMATION: Additional information to address the comments received was requested on January 16, 2006. A response to the TAC comments was received on October 26, 2006.

PUBLIC HEARING:

As no public requests for a hearing were filed, a public hearing is not recommended.

RECOMMENDATION:

Comments received on the Proposal have been addressed in the additional information, or can be addressed through licence conditions. 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 Western Region.

PREPARED BY:

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January 16, 2006 Updated November 2, 2006

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