

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPOSER: Rural Municipality of Argyle
PROPOSAL NAME: Baldur Water Treatment Plant Upgrade

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

CLIENT FILE NO.: 5340.00

OVERVIEW:

The Proposal was received on April 23, 2008. It was dated April 21, 2008. 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 Argyle for the disposal of wastewater from an upgraded water treatment plant at Baldur. The proposed plant is a package installation that would provide reverse osmosis treatment to remove iron, manganese, nitrates, hardness and total dissolved solids from the community’s groundwater sourced water supply. The wastewater stream produced by the plant would consist of concentrated amounts of the constituents removed from the treated water, and would be discharged to Oak Creek immediately north of the community. The wastewater produced would amount to an average of 0.67 litres per second for approximately 12 hours per day, or approximately 25% of the plant’s raw water requirement. Demand for treated water is expected to be not more than approximately 2 litres per second over the 20 year design lifespan of the system. Construction of the proposed upgrades to the plant is planned for 2008.”

The Proposal was advertised in the Baldur Glenboro Gazette on Tuesday, May 13 2008. It was placed in the Main, Eco-Network, Millennium Public Library (Winnipeg) and Lakeland Regional Library (Killarney) public registries. The Proposal was distributed to TAC members on May 2, 2008. The closing date for comments from members of the public and TAC members was June 9, 2008.

COMMENTS FROM THE PUBLIC:

No public comments were received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Conservation – Sustainable Resource and Policy Management Branch

No concerns.

Manitoba Conservation – Parks and Natural Areas Branch

No concerns.

Manitoba Water Stewardship

- The proposal is to replace the existing water treatment plant process with a membrane filtration system that will bring the community drinking water supply within Canadian Drinking Water Quality guidelines.
- The potential issue for surface water quality is the proposed discharge of “reject water” from the filtration system to the Oak River and the additional load of minerals and other constituents from this discharge on the Oak River and downstream catchment waters such as the Glenboro Marsh.
- The proposal appears to provide a reasonable estimate of how the concentrate in the reject water may impact upon the chemistry of the Oak River under low and high flow scenarios.
 - Impacts from reject water discharge under high flow conditions are negligible while under low flow conditions. It is expected that TDS, sulphate, calcium, magnesium, and chloride and nitrate-nitrite will increase above ambient concentrations in the Oak River.
 - The most significant increase in the Oak River due to reject water occurs when nitrate-nitrite concentrations are estimated to change from a calculated annual mean of 0.12 mg/L to 4.34 mg/L during low flow periods;
- Nitrate-nitrite concentrations appear very high in groundwater sources. Based upon data in Table 3-1, Appendix C, it appears concentrations could have doubled from the 1975 - 1984 period (10.7 mg/L) compared to 2006 data (22.3 to 25.3 mg/L).
- The proposal noted that the existing lagoon was hydraulically overloaded, discharging reject water to the lagoon does not appear to be an option at this time.
- The South well field, 36-4-14, will continue to be used in addition to the new well, NE 35-4-14, adjacent to the South well field. The North well field will be used for back-up. Although the proposed new system will be capable of handling the necessary treatment, a review of the watershed and wellhead protection should be done to attempt to identify the source of the high nitrate levels and remove/reduce any contaminant source if present.

- The proposal notes that the existing reservoir has sufficient capacity but the last engineering assessment (Stantec 2006) did not include a structural assessment.
- A submission, pursuant to The Drinking Water Safety Act, is expected to include the new water treatment plant, new well location, and design information, including the pipeline connection details and head protection details.
- Any technical issues should be reviewed with the Office of Drinking Water, Approvals Section, as soon as possible to avoid conflicts with tendering, budgeting, scheduling and to expedite the approval process, pursuant to The Drinking Water Safety Act.
- The Department recommends to include the following requirements in an Environment Act Licence, for the referenced file :
 - Develop and implement a water quality monitoring program to verify the estimated impacts by reject water (membrane concentrate of the membrane filtration system) to Oak Creek.
 - This water quality monitoring program should be conducted for at least one full year to two years of operation. By March 31st of each year, submit an annual report of the water quality monitoring program to the Water Quality Management Section for review.
 - Approve discharge to Oak Creek on an interim/phase basis. Assessment/need of discharge of reject water to the lagoon system shall be conducted when a lagoon upgrade process is undertaken.
 - This scenario will be more critical if an assessment of the aforementioned water quality monitoring program indicates that impacts are more significant than currently anticipated.
 - Conduct an assessment to determine if the high nitrate-nitrite concentrations in groundwater are due to poor land management practices over the aquifer.
 - If land management practices are a main source of nitrate-nitrites in the water supply, these should be corrected.
 - Conduct a structural assessment of the reservoir, as part of the current proposed works.
 - Pursuant to The Drinking Water Safety Act, the proponent is required to:
 - Submit an Application for a Permit to Construct/Alter a Public Water System;

- Submit a detailed engineering package;
 - Submit a watershed/well head protection assessment; and,
 - Obtain approval of the project prior to any work commencing.
- The R. M. of Argyle is authorized, via a Water Rights Licence, to withdraw up to 35 cubic decametres of water annually from 2 wells completed in a sand and gravel aquifer located in SE36-4-14W. The Environment Act Proposal indicates that a third well has been completed in a shale aquifer.
 - The Department recommends to include the following requirements in an Environment Act Licence, for the referenced file:
 - If the well from the shale aquifer is in use and/or if more water is being used by the project than the 35 cubic decametres that have been authorized under Water Rights Licence No. 2006-025, the Licencee is required to apply for an amendment to its Water Rights Licence.

Disposition:

These comments were provided to the proponent's consultant for information. Many of the comments can be addressed as licence conditions. All remaining comments can be addressed by the proponent outside of an Environment Act licence; many of the comments pertain to requirements of the Drinking Water Safety Act and the Water Rights Act.

Community Planning Services Branch No land use concerns with this proposal – the existing water treatment plant in Baldur was originally sited to take advantage of available groundwater supplies - this public utility land use is compatible with the mixture of residential and commercial development typically found in a smaller community.

Highway Planning and Design Branch No concern.

Manitoba Agriculture, Food and Rural Initiatives – Land Use Planning and Policy Knowledge Centre No issues or concerns with respect to this proposal. Although no Development Plan is in place at this time, the intent of use conforms with the existing Planning Scheme.

Medical Officer of Health – Assiniboine and Brandon RHAs

1. Environment License clauses should address the following:

- i. adherence to the Guidelines for Canadian Drinking Water Quality
 - ii. adherence to The Public Health Act Manitoba Regulations 330/88R and to applicable regulations in The Drinking Water Safety Act
 - i. Will the proposed water treatment plant address viruses and parasite elimination as well as trihalomethanes, bromodichloromethanes and turbidity?
 - iii. groundwater protection from leaks and spills from construction equipment and fueling activities.
2. Other issues are identified in the proposal as needing to be addressed in the future e.g., overloading of the community lagoon (p.3), need for upgrades for chemical storage and spill containment (p.4), detailed structural inspection of the reservoir (p.4). Are there any plans to address these issues in case they impact on the proposed design?

Disposition:

Several of these comments can be addressed through licence conditions. The quality of water produced by the plant is regulated by the Drinking Water Safety Act through the Office of Drinking Water. With respect to the other issues identified, the lagoon overloading is being addressed separately, and chemical storage and spill containment will be addressed as part of this project. A structural inspection of the reservoir will be undertaken separately when required.

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 forwarded to federal departments with a potential interest. Based on the responses to the survey, application of the Canadian Environmental Assessment Act (the Act) will not be required for this project. Please note that Health Canada (HC) has indicated that advice may be provided upon request. The Department of Fisheries and Oceans (DFO) has provided advice for your consideration in the review of this proposal.

(No federal departments indicated a desire to participate in the provincial review of the project.)

ADDITIONAL INFORMATION:

No additional information was required to address Technical Advisory Committee comments on the project.

PUBLIC HEARING:

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

RECOMMENDATION:

Comments received on the Proposal 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.

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