

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: City of Portage la Prairie
NAME OF DEVELOPMENT: City of Portage la Prairie Water Treatment Plant – Residuals and Backwash Disposal
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control - Water Withdrawal
CLIENT FILE NO.: 4635.00

OVERVIEW:

The Proposal was received on June 11, 2001. It was dated June 6, 2001. The advertisement of the proposal was as follows:

"A Proposal has been filed by Cochrane Engineering on behalf of the City of Portage la Prairie for the construction and operation of upgraded water treatment facilities. The capacity of the existing plant would be increased from approximately 18 million litres per day to 35 million litres per day. Water for the plant is obtained from the Assiniboine River. The upgrading is planned in two phases, with completion by April, 2003. In the first phase, a number of existing plant components would be upgraded, and sludge drying ponds and granular activated carbon filters would be constructed. In the second phase, further equipment upgrading would be completed, and an additional softening clarifier would be constructed. Unchlorinated filter backwash water would be discharged directly to the Assiniboine River. Sludge from the plant's preclarifiers and softening clarifiers would be discharged to new sludge ponds proposed for the south side of the river near the plant. Decanted water from the ponds and supernatant water from the ponds' underdrain system would be discharged to the Assiniboine River. Dried sludge would be deposited in the City's waste disposal ground."

The Proposal was advertised in the Portage Daily on Saturday, June 23, 2001. It was placed in the Main, Centennial, and Portage la Prairie City Library public registries. The Proposal was distributed to TAC members on June 18, 2001. The closing date for comments from members of the public and TAC members was July 18, 2001.

COMMENTS FROM THE PUBLIC:

Elizabeth Fleming, Provincial Council of Women of Manitoba - Provincial Council of Women of Manitoba (PCWM) is concerned about the proposal by the City of Portage to double the volume of water which it takes from the Assiniboine River. The request comes on the heels of increased demands from a number of groups of irrigators to divert large volumes of water from the Assiniboine and in the absence of an overall management plan for the Assiniboine River Basin.

The cumulative effects of the current and proposed water diversions must be examined within an overall management plan for the Assiniboine River Basin. The consultation on sustainable development implementation recommended that large area planning be carried

out on a watershed basis and that early, informed public participation form an integral part of the process. The Government of Manitoba has agreed to these principles. However, the necessary instream flow studies of the Assiniboine River are not yet completed, making any decisions on future withdrawals of water premature.

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PCWM questions the predicted water demand figures presented by the consultant. The predicted additional city growth and peripheral development appear extremely high, given the trends of the last forty years. The predictions forecast that municipal water demand will increase by one third due to Simplot, yet no supporting information regarding the Simplot operation is provided.

Better researched data are also needed on river flow, instream flow requirements for the aquatic health of the Assiniboine River, the cumulative effects of the water withdrawals for irrigation, municipal and other uses (information on water licences is not available to the public), the wastewater effects of the proposed doubling of intake water, and funding. Sustainable development means considering both the environmental and economic effects.

Please include this communication in the public registry file and thank you for this opportunity to comment.

Disposition:

Water allocation is carried out under the Water Rights Act. For projects which require both Environment Act and Water Rights Act licensing, Water Licensing staff uses the Environment Act process to identify public and technical concerns. Water remains available for allocation from the Assiniboine River, and recent Environment Act licences for water use from the Assiniboine River have addressed allocation through a standard licensing condition referring to a Water Rights Licence. The Department is currently undertaking an instream flow needs assessment for the Assiniboine River. Once instream flow recommendations are available, minimum flow maintenance provisions can be provided in water rights licences. The Department is also preparing to address basin planning needs for the Assiniboine River. With respect to future water demands and demand growth, information on Simplot's projected needs is available in Simplot's Environment Act Proposal (File: 4655.00).

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Conservation – Sustainable Resource Management - According to the Proposal the establishment of the sedimentation ponds and a new process for backwash water disposal will be an improvement, from an environmental viewpoint, over the existing system of discharging sludge directly into the Assiniboine River. However, not

enough information is provided in the proposal to properly assess the impact and potential improvements of the new system versus the present system.

It would be useful to monitor the effluent discharge, at least for a short term period, to get an idea of the accuracy of the estimations provided in the proposal, the efficacy of the tile drainage system, and to compare it to the existing effluent quality.

Does the "worst case scenario" for backwash water discharge referred to in Section 6.3.1.3 take into account periods of minimal flow in the river, or is it based on average annual flows?

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Table 6.2 gives the impression that data on a number of variables, including total suspended solids, calcium, conductivity etc. are not available. The Water Quality Management Section has monitored these variables for the past several years. In fact, data on the total suspended solids in the Assiniboine River at the spillway have been collected since 1965 and is available on request.

The projected pH of the combined subnatant and river water is 8.2, the average of river water alone, although the pH of the subnatant from the sludge pond will be approximately 10. Will dilution ensure no increase in pH of the river water?

The site of this proposal is quite close to the Portage Spillway Provincial Park. There could be some concerns if odors arising from the operation of the project, particularly the sludge disposal, prove to be an annoyance to Park users.

The construction of two ponds between the Floodway reservoir and Crescent Lake may change to an unknown degree the patterns of flight of waterfowl and blackbirds.

Disposition:

An effluent monitoring program can be established through licence conditions to address impacts on the river. The worst case scenario in section 6.3.1.3 is based on average river flows; additional information will be requested respecting low flow conditions. Additional information will also be requested concerning pH changes due to the plant. Odour should not be a problem, as other communities have sludge lagoons immediately adjacent to residential areas. With respect to changes in flight patterns of birds, it is unlikely that changes would be significant. Bird use on the sludge ponds is expected to be incidental, as food sources are more plentiful on Crescent Lake and the floodway.

Manitoba Conservation – Red River Region - No concerns.

Petroleum Branch - No concerns or comments.

Historic Resources Branch - No concerns. The location of the water treatment plant is in SW 26-11-7W, not in SE 28-7-11W as reported in section 2.1 of the Proposal.

Mines Branch - No concerns.

Highway Planning and Design Branch - No concerns.

Medical Officer of Health – Central Region - Manitoba Health agrees with the aim to improve water quality to residents while decreasing the impact of the discharge into the Assiniboine River.

Canadian Environmental Assessment Agency - Application of the Canadian Environmental Assessment Act with respect to the project will not likely be required. Environment Canada, Natural Resources Canada and Health Canada would be able to provide specialist advice. (Environment Canada was the only federal agency indicating a desire to participate in the provincial review of the project.)

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Environment Canada

1. We support the treatment of water treatment plant residues as opposed to their discharge back into receiving waters, and are, therefore, pleased to see incorporation of sludge drying ponds in the water treatment plant upgrade. We note, however, that very little information has been provided on potential impacts of the construction/installation of the sludge drying ponds and associated sludge line and discharge line from the ponds. While we agree that the proposed plan is more environmentally acceptable than the current operation, all the associated impacts of the proposal (positive and negative) should be considered and documented for review. For example, the report should provide information on:
 - current sludge and filter backwash handling procedures
 - sludge pond construction schedule
 - potential impacts of any clearing and construction activities for the ponds, sludge line and subnatant discharge line on vegetation, wildlife (if present) and receiving water. For example, soil erosion may be a concern from cleared areas, particularly those adjacent to the river
 - potential impacts of the sludge pond discharge on the receiving water (effluents with a pH of 9.5 or greater are generally considered deleterious to fish)
 - mitigative measures to be used to minimize impacts, such as erosion control measures, flexible scheduling, directional drilling for stream crossings, etc.

2. Receiving water data and potential impacts for total suspended solids (TSS) from the filter backwash have not been presented in section 6.3. We understand that TSS is routinely monitored on the Assiniboine by the province. It would be useful to know why TSS data for the receiving water were not available in Table 6.2. Because of the high TSS in the backwash, (i.e., 1100 mg/L, a concentration that would be considered deleterious to fish), we also wondered if consideration was given to discharging the filter backwash to the sludge ponds, instead of directly to the river. Although there may be some additional cost and design considerations, impacts to the river could be further minimized if this approach were deemed feasible. The Assiniboine River already exceeds several water quality objectives and is under increasing stress from industrial facilities, irrigation, municipal discharges, intensive livestock operations, etc.
3. On page 14, it indicates that filter backwash water "will be discharged through perforated piping at various points along the river so that there will be minimal environmental impact." Further clarification should be provided on the discharge method, including a drawing, if available. Additional information would also be helpful on Drawing WE 01026 in Appendix B, including what the various lines and other structures are.

Disposition:

These comments were provided to the applicant's consultant for comment.

ADDITIONAL INFORMATION:

Additional information addressing TAC comments was requested on August 24, 2001. The response from the Proponent's consultant dated October 10, 2001 is attached.

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PUBLIC HEARING:

As no public concerns were identified, a public hearing is not recommended.

RECOMMENDATION:

All comments received on the Proposal involving environmental impacts have been addressed in the additional information or can be addressed as licence conditions. Therefore, 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 Red River Region.

PREPARED BY:

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