
FOREWORD

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This report provides the Environment Act Proposal and environmental impact assessment for the proposed development of an expanded Industrial Waste Water Treatment Facility (IWWTF) by the City of Brandon to treat the additional waste water load associated with the second production shift at Maple Leaf Pork. The report was generated with continual reference to the draft "Advice Document for the Preparation of an Environment Act Proposal and Environmental Assessment for an Alteration to the City of Brandon's Wastewater Treatment Facility". The Advice Document is available on the Manitoba Conservation web site.

As part of the original pork processing plant undertakings in 1999, the City of Brandon and Maple Leaf committed to conducting a study of the Assiniboine River from Brandon to Portage la Prairie and have invested over \$750,000 on studies to date. In doing so the knowledge base regarding the river's aquatic habitat has grown and has formed an integral part of the information base that is used to contribute to the provincial nutrient management plan. The associated monitoring has been completed over the past four years and the study report is nearly completed. The study results will be available by April 2003. The environmental impact assessment presented here will be updated by May 15, 2003 incorporating the information from the Assiniboine River Study.

The study results are not required for the licence alteration as the Advice Document states: "no further net increase in total nitrogen and total phosphorus due to the proposed Development will occur to the Assiniboine River unless it can clearly be shown from the river studies and the water quality model that no effect will be observed on algal growth, while bearing in mind that upon the completion of Manitoba's Nutrient Management Strategy, it may be necessary to further reduce concentrations of nitrogen and phosphorus releases to the river." The City of Brandon and Maple Leaf Pork, in the design of the wastewater treatment method described herein, endeavor to ensure no further net increase in total nitrogen and total phosphorus due to the proposed Development. They have elected to invest in treating the wastewater in a proactive step so as to ensure no increase rather than attempt to show at this time no effect will be observed on algal growth. That is, the expanded IWWTF is being designed to remove more total nitrogen and total phosphorus on average than what the current single production shift at Maple Leaf Pork produces as measured at the treated effluent discharge point to the Assiniboine River.

The pork processing plant is already licenced for 2-shift production and the proposed alteration is merely the culmination of a plan that was initiated in 1998 when Maple Leaf chose the City of Brandon as the home for a state-of-the-art pork processing facility. This proposed Development will result in the reduction of impacts to the Assiniboine River via the reduction of effluent nutrients to levels below the existing discharge. For example, it is now

anticipated that the average nitrogen load can be decreased by 50% over current levels. This reduction actually reduces the impact of the existing pork processing plant on the river while increasing production and stimulating the economy of Brandon, Manitoba and Canada.

The work completed for this project has demonstrated the commitment of Maple Leaf and the City of Brandon to good environmental stewardship and has demonstrated the ability of industry to grow while implementing state of the art effluent treatment techniques to maintain or improve the quality of the river at the same time. The proposed alteration demonstrates a commitment to sustainable development in satisfying Manitoba Conservation's licence requirements; that is, the expanded IWWTF will not discharge any more nutrients in the second shift than they have been discharging under the first shift production.

The contamination of the Assiniboine River upstream of Brandon comes from a wide range of small contributors (many non-point sources and comparatively small point sources) that will present a major challenge to clean-up over such a widespread river basin (86,000 km²). Although probably too soon to even contemplate, the Brandon area will possibly be the most economical location in the river basin to significantly improve the water quality of the Assiniboine River. At this time it appears the same membrane technology as presented herein would be a strong strategic option to further reduce nutrient contributions from the proposed Development should the Manitoba Nutrient Management Strategy necessitate further reductions of nitrogen and phosphorous to the Assiniboine River in the future. The City of Brandon recognizes that opportunities may arise in the future for it to take the lead, as it is doing now, to effect significant changes, however it would expect others either to meet the same criteria, or to cost-share such efforts in Brandon so the total responsibility for the Assiniboine River water quality does not fall on it or limit the City's future development.

In summary the proposed alteration will result in an improvement of the environment compared to the present situation, will provide an economic and social boost to Manitoba, and form a significant "first step" in achieving meaningful nutrient management on the Assiniboine River.