

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPOSER: Landmark Feeds Inc.
PROPOSAL NAME: Landmark Feeds Inc. – Feed Mill Water Treatment Plant Residuals Disposal
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Water Treatment Plant (wastewater)
CLIENT FILE NO.: 4830.00

OVERVIEW:

On June 21, 2002, the Department received a Proposal from Cochrane Engineering Ltd. on behalf of Landmark Feeds Inc. for a Development to construct and operate a new feed mill water treatment plant and associated residuals disposal. The feed mill will be located on Lot 1, plan 40146 in the northwest quarter of Section 34-7-20 WPM. The proposed water treatment plant system will include an oxidation contact tank, filtration, softening and a reverse osmosis system. Approximately 48 000 litres per day of wastewater from the water treatment process will be discharged via pipeline approximately four kilometres southward to a ravine which flows into the Souris River.

The Department, on July 29, 2002, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Centennial Public Library, the Manitoba Eco-Network and the Rural Municipality of Glenwood Office. As well, copies of the Proposal were provided to the Interdepartmental Planning Board and TAC members. The Department placed a public notification of the Proposal in the Souris Plaindealer on Saturday, August 3, 2002. The newspaper and TAC notification invited responses until August 16, 2002.

COMMENTS FROM THE PUBLIC:

Three responses were received to the public notification. The following are comments/concerns related to the proposal:

Roy Lovatt, Souris

- *Concern regarding the volume of water to be extracted from the aquifer. Will this affect the sustainability of my water supply and the Town of Souris' water supply?*
- *What will be the impact of the waste streams on the Souris River? Will fish or aquatic life be impacted? Will there be loss of fish habitat? Will the waste stream contain phosphates, nitrate, sodium or chlorides?*
- *What monitoring programs will be put in place for these waste streams, including frequency of monitoring and frequency of submission of monitoring results to Manitoba Conservation?*
- *Will the volume of water being discharged into the ravine have an erosion effect that will cause a loss of wildlife habitat and/or affect hunting in the ravine?*
- *I request answers to my concerns or an opportunity to raise them at a public hearing.*

Disposition:

- The volume of water extracted from the aquifer will be addressed in the water rights licencing process.
- Additional information was provided by the Proponent to clarify the estimated water quality of the waste stream and its impact on the Souris River. The Proponent has indicated that a non-phosphorous additive will be used in the boilers to eliminate the source of phosphorous in the discharge water.
- The attached draft Licence specifies the monitoring program for the discharge stream and receiving waterbodies.
- The volume of discharged wastewater will be only a fraction of the estimated natural runoff, and should not increase erosion in the ravine.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture and Food

- *No concerns.*

Conservation - Sustainable Resource Management

- *There are concerns regarding effluent release to the Souris River related to the fisheries resources of the river. The Souris River supports an important and diverse recreational fishery for cool and coldwater fish species as well as significant beds of several clam species. The Department is currently investigating the clam communities and is developing a proposal for a clam bed ecological reserve near Treesbank.*
- *A continuous discharge is not normally recommended, as the effluent would be expected to freeze along the discharge route. There are also concerns with having this effluent discharge through the ravine during the ice-free period. In Appendix E of the report, landowners in the area indicate that they would welcome additional water as a watering supply for their cattle; however the effluent will exceed livestock water quality guidelines for conductivity, total dissolved solids and sulphates. Very high phosphorous levels may promote the growth of toxic blue green algae, should ponding of the water occur within the ravine.*
- *The effluent would exceed aquatic life water quality guidelines for total suspended solids and iron. Conductivity levels would be considerably higher than ambient conditions within the mixing zone. The proponent has projected that the phosphorus in the effluent would result in a three-fold increase in phosphorus levels in the river, which may promote the growth of undesirable aquatic plant growth and increase the risk of toxic algal production under low flow conditions in the summer.*
- *The temperature of the wastewater is expected to be 26°C. It should be noted that if this temperature was to be discharged directly to the river year-round, aquatic life might be negatively impacted.*
- *The proponent does not include any information on nitrogen levels in the effluent. Total nitrogen, nitrate/nitrite, and ammonia should be supplied.*
- *It is possible that the effluent quality may be poorer than predicted in which case the impacts may be greater.*

- *Appendix F was not included with the report. Impact assessment should be done using either the 4-day, 3-year biological flow, or the 7Q10 hydrological flow. It is unclear as to how the 'overall minimum daily flow rate', calculated by the proponent, relates to the 7Q10.*
- *Other options than a direct continuous discharge to the river should be explored.*
- *It is recommended that the licence require the proponent to actively participate in any future watershed based management study, plan or nutrient reduction program, approved by the Director, for the Souris River and associated waterways and watersheds.*

Disposition:

- Additional information was provided by the Proponent to clarify the estimated water quality of the waste stream and its impact on the Souris River. The Proponent has indicated that a non-phosphorous additive will be used in the boilers to eliminate the source of phosphorous in discharge water. The additional information was provided to Sustainable Resource Management Branch and no comments were received.
- The Proponent indicated that the discharged water will flow approximately three kilometres before discharge into the Souris River. The temperature of the discharge water will be affected by the air, water and soil temperature and should not impact aquatic life in the river.
- The attached draft Licence requires monitoring and reporting of ammonia, nitrate-nitrite nitrogen and total Kjeldahl nitrogen, in addition to other water quality parameters.
- The reference to Appendix F was erroneous. The flow data and water quality data are located in Appendix D of the Proposal.
- The Proponent recalculated the expected water quality impacts using the 7Q10 hydrological flow.
- The attached draft Licence requires the Proponent to actively participate in any future watershed based management study, plan or nutrient reduction program, approved by the Director, for the Souris River and associated waterways and watersheds.

Culture, Heritage and Tourism - Historic Resources

- *The Historic Resources Branch has concerns with regard to this project's potential to impact heritage resources.*
- *The water discharge pipeline route and discharge point should be inspected for heritage resources prior to construction.*
- *A Branch archaeologist will examine this area when scheduling permits to determine the location and significance of any heritage resources. In the event that significant heritage resources are present, the proponent will be contacted and a mutually acceptable heritage resource management strategy can be implemented.*

Disposition:

- The draft Licence requires the Proponent to consult with the Historic Resources Branch prior to construction and to carry out a heritage resource management strategy if requested by the Historic Resource Branch.

Health

- *No comment.*

Transportation and Government Services

- *No concerns.*

Intergovernmental Affairs

- *No concerns.*
- *The proponent should seek the approval of the local municipality for the installation of discharge piping within the road allowances, as the municipality has jurisdiction over this road allowance.*

Canadian Environmental Assessment Agency

- *The Department of Fisheries and Oceans (DFO) requires additional information in order to determine if the project will result in the harmful alteration, disruption or destruction of fish habitat:*
 - *The pipeline to be constructed to the third order watercourse will cross a second order watercourse in the west of NW27-0720W. An assessment of the fisheries potential of this watercourse including site photos, a description of the habitat available and descriptions of construction and stabilization methods should be provided to DFO.*
 - *No information is provided regarding the infrastructure of the outfall in the third order watercourse 'ravine' in east of SE21-07-20W, nor is any information on the fisheries potential of this stream provided. A description of any outfall infrastructure and construction and stabilization methods along with an assessment of the fisheries potential of this watercourse including site photos, and a description of the habitat available should be provided.*
- *The application of the Canadian Environmental Assessment Act with respect to this project cannot be determined at this time.*

Disposition:

- *The Proponent indicated that both watercourses are generally dry except during spring run-off and storm events.*
- *The Proponent provided additional information, including photos of the discharge route. The additional information was provided to DFO; no comments were received.*

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

All comments received on the Proposal 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 Western Region.

PREPARED BY:

Siobhan Burland, EIT, M. Eng.
Municipal, Industrial and Hazardous Waste Approvals
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Telephone: (204) 945-7012
Fax: (204) 945-5229
E-mail Address: sburland@gov.mb.ca