

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Hulme Agra Products Inc.
PROPOSAL NAME: Hulme Irrigation Project
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 5043.00

OVERVIEW:

The Proposal was received on June 10, 2004. It was dated June 9, 2004. The advertisement of the proposal was as follows:

“A Proposal has been filed by Hulme Agra Products Inc. to irrigate up to 105 ha (260 acres) annually in rotation on a land base of 590 ha (1450 acres). The project land is located south of MacGregor in the Rural Municipality of North Norfolk. Approximately 106 dam³ (86 acre-feet) of water would be applied annually, using water obtained from a tributary of Beaver Creek in SE 21-11-10W, Image Creek in SW 14-11-10W and recycled tile drain water from the project area. The project would be constructed in the summer of 2004.”

The Proposal was advertised in the Portage Herald Leader on Tuesday, June 29, 2004. It was placed in the Main, St. James-Assiniboia Public Library, Eco-Network and Portage la Prairie City Library public registries. It was distributed to TAC members on June 16, 2004. The closing date for comments from members of the public and TAC members was July 22, 2004.

COMMENTS FROM THE PUBLIC: No public comments were received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Conservation – Sustainable Resource Management Two plant species (Crawe’s sedge, Yellow stargrass) that are somewhat rare occur in the project area. Although most of the work will take place on cultivated land some disturbance will occur in road allowances and these areas should be checked for these rare species. The proponent has already been provided with this information and should contact the

Manitoba Conservation Data Centre to discuss possible mitigation options if these species are encountered.

The effects of the cumulative withdrawal of water on the hydrological cycle of the receiving waters (i.e. the Whitemud River) should be evaluated.

It is suggested that the sand bag dam be replaced on an annual basis to negate potential for bags rotting and depositing sediment into the watercourse.

All construction activities related to watercourses should adhere to Manitoba's Stream Crossing Guidelines for the Protection of Fish and Fish Habitat.

No water should be returned to Image Creek unless it meets Manitoba's Surface Water Quality Standards, Objectives and Guidelines.

While the proposal indicates that producers will be encouraged to take advantage of current Best Management Practices with regard to nitrogen management, the use of these practices should be a requirement.

The proponent should indicate what measures will be taken, if required, to minimize movement of sediment to any watercourse and to protect watercourses from elevated nitrate release from the operations of this development.

Proper backflow prevention to prevent cross contamination of pipeline water should be in place if fertigation is employed within the irrigation sprinkler systems.

Further research in tile water quality, tile water quantity and reliability should be considered if tile drainage water is to be recycled for irrigation.

Disposition:

These comments can be addressed through licence conditions.

Historic Resources Branch

No concerns.

Mines Branch

No concerns.

Highway Planning and Design

Manitoba Transportation and Government Services has no major concerns. The Department wishes to note the following: an agreement with the Department of Transportation and Government Services is required to place an irrigation line adjacent to and across PR 350 right-of-way, and all affected ditches, slopes and disturbed areas within provincial right-of-way must be restored to an acceptable condition. Contacts for the Department are the regional Planning Technologist and the regional Technical Services Engineer.

Disposition:

These comments can be addressed through licence conditions.

Soils and Crops Branch Appendix C and D of the proposal contains correspondence between MAFRI and AXYS. Attached to this letter is additional correspondence from Peter Haluschak, dated April 6, 2004 regarding recent reports including the Hulme project.

Discussion regarding the Hulme irrigation project involved the risks associated with salinization and with drainage. In section 6.4 of the land assessment report, AXYS indicates that salinity does exist in the project area and a monitoring program to establish baseline salinity information and an appropriate salinity monitoring program should be implemented. Section 4.1.5 outlines the recommendations for developing the land base in the project area addressing the potential concerns regarding salinity and drainage. I concur with the recommendations outlined in Section 4.1.5.

I note specifically that 2.1.1.1 and section 2.1.1.2 of the agronomic report indicates that both surface and tile drainage has been implemented on the SW 14-11-10 and the NE 14-11-10 and the NW 13-11-10. The improved drainage should mitigate the concerns expressed regarding drainage.

I also note that the project involves the reuse of water that is collected from the tile drainage system. As indicate throughout the report, there is more land than water available in the project area. The ability to reuse water from the tile drainage system is an important part of this project that potentially will be very beneficial in enhancing the available water supply.

In conclusion, the environment act proposal of the Hulme irrigation project identifies appropriate mitigation strategies of the concerns identified in the soil and agronomic assessments.

April 6, 2004 MAFRI Comments on Land and Agronomic Assessments:

The following is a discussion of outstanding issues between Manitoba Agriculture, Food and Rural Initiatives and AXYS in regard to irrigation reports for McIntosh, Hulme, Larsen, Leslie/Case/Arendise, Larsen, and Verway projects.

1. The Suitability of Land for Irrigated Potato Production groups land into 5 Classes and should not be considered as an assessment of sustainable production. The soil characteristics or properties described within a Class may not have the same degree of impact or limitation.

The salinity criteria (0 to 2 mS/cm) assigned to rapid and well drained soils with textural groups identified in Class 1 & 2 are based on a review of salinity data for soil series within these two classes.

Salinity criteria for Class 3 to 5 are defined by the salinity classes used in detail soil mapping. These are as follows: nonsaline (0 to 4 mS/cm) soils are placed into Class 3, slightly saline (4 to 8 mS/cm) soils are placed into Class 4, moderately saline (8 to 15 mS/cm) and strongly saline (greater than 15 mS/cm) are placed into Class 5.

Generally soils placed into Class 3 may be deemed suitable with the exception of saline (EC ~4 mS/cm), imperfectly drained soils.

Soils placed into Class 3 due to a combination of imperfect drainage and salinity levels near 4 mS/cm can have a significant impact on potato yield. Imperfectly and poorly drained soils that have salinity in the surface and/or subsurface will be negatively impacted by irrigation. Maintaining more moist soil conditions under irrigation may result in a rise in the water table increasing the risk of salinity.

Literature indicates that a soil salinity level of 1.7 mS/cm based on saturated paste extracts (E. Bresler, B. L. McNeal & D.L. Carter) is the threshold value for potatoes and that greater EC values will result in reduced yield. A salinity level of 4 mS/cm is assigned a relative yield of 72 %, and salinity levels of 8mS/cm results in a relative yield of 24 %.

2. The EC class limits used in the Guide tables for: General Irrigation Suitability, Suitability of Land for Irrigated Potato Production and Potential Environmental Impact are based on soil sample analysis by the saturated paste extract method. Therefore, only data obtained using this procedure should be used with respect to application of these guidelines in site assessments and in discussions of point data collected in study areas.

3. A 1:20,000 soil survey is based upon approximately 25 to 30 inspections per section of land or approximately one inspection point per 8 to 10 ha.

Therefore, when data is presented in reports and used to characterize or redefine soil conditions for depth of materials or salinity, the same level of sampling intensity is required. As an example, in the McIntosh Report polygon #8 has an area of approximately 32 ha. and one sampling point (MC-11), however based on the area, 3 to 4 inspections would be required to properly characterize the polygon for soil materials.

4. The Potential Environmental Impact ratings are based on the following soil and landscapes characteristics: texture, geological uniformity, hydraulic conductivity, depth to water table, salinity and topography of natural occurring soil and landscape conditions. These ratings **do not** reflect the water removal or improvement of drainage for land areas and therefore site specific evaluations for environmental impact must be made to incorporate these factors. **Surface and /or subsurface (i.e. tile) drainage is not included in this rating because these improvements are site specific in nature and are usually discussed as improvements for land being considered for irrigated potato production. These conditions usually occur in areas with imperfectly and poorly drained soils with textures from sand to clay.**

Disposition:

Discussion has already occurred between MAFRI staff and the proponent's consultants regarding land use and agronomic issues. All remaining issues can be addressed as licence conditions.

Canadian Environmental Assessment Agency Fisheries and Oceans Canada (DFO) and the Transport Canada – Navigable Protection Program have provided notification that additional information is required prior to determining whether an environmental assessment under the *Canadian Environmental Assessment Act* (the Act) will be required with respect to the project. The attached documentation from DFO outlines the information required. In accordance with the Canada-Manitoba Agreement on Environmental Assessment Cooperation, please contact the DFO and Transport Canada representatives noted on the attached responses as soon as possible to coordinate the collection of this information. In the interim, please ensure coordination of the assessment activities with DFO and Transport Canada until a firm determination can be made.

DFO, Transport Canada and Environment Canada would be able to offer specialist information in regards to the project review. Please ensure coordination of the cooperative environmental assessment with the departmental contacts noted on the attached survey responses. These departments have also determined that they have an interest in the project and would like to participate in the provincial review, pursuant to clause [MB-59] of the Agreement. For purposes of coordination, please contact the departmental representatives. (Environment Canada did not indicate a desire to participate in the provincial review.)

ADDITIONAL INFORMATION:

No additional information is required to address provincial TAC comments on the project. Federal information requirements have been forwarded directly to the proponents by the interested agencies.

PUBLIC HEARING:

No requests were received for a public hearing. Accordingly, a public hearing is not recommended.

RECOMMENDATION:

All comments received on the Proposal 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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Environmental Approvals - Environmental Land Use Approvals

August 10, 2004

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