SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT:	Long Plain Irrigation Management Company
PROPOSAL NAME:	Long Plain First Nation Irrigation Project
CLASS OF DEVELOPMENT: TYPE OF DEVELOPMENT: CLIENT FILE NO.:	Two Water Development and Control 5018.00

OVERVIEW:

The Proposal was received on January 14, 2004. It was dated January 13, 2004. The advertisement of the proposal was as follows:

"A Proposal has been filed by J. R. Cousin Consultants Ltd. on behalf of the Long Plain Irrigation Management Company to irrigate up to 310 ha (770 acres) annually in rotation on a land base of 930 ha (2600 acres). Most of the project land is owned by the Long Plain First Nation or the Long Plain Trust, and is located south of Portage la Prairie and west of the Assiniboine River. Approximately 717 dam³ (582 acre-feet) of water would be applied annually, using water obtained from the Assiniboine River. The project would be constructed in the spring and early summer of 2004, with operation commencing following construction."

The Proposal was advertised in the Portage Herald Leader on Tuesday, March 2, 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 February 23, 2004. The closing date for comments from members of the public and TAC members was March 26, 2004.

COMMENTS FROM THE PUBLIC:

La Salle Redboine Conservation District LSRBCD's main concerns with this project are those stemming to responsible management of light soils and the high potential for destabilization of sensitive riverbanks associated with water withdrawal sites along the Assiniboine River.

The mitigation measures proposed for the river bank disturbance appear suitable to minimize sediment loading from the site and every effort should be made to control small disturbances as they occur.

Your proposal also suggests several best management practices that should be implemented to ensure a minimal amount of soil disturbance pre and post harvest. As this project is intended to create infrastructure for rental purposes, who will ensure that these practices will in fact occur once harvest is complete? I would suggest that you make these practices a condition of any rental agreement with interested producers to protect your investment.

Disposition:

Most of these comments can be addressed through licence conditions.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

<u>Manitoba Conservation – Sustainable Resource Management</u> In order to assess and enforce licensing conditions water withdrawal logbooks should be made available annually. A monitoring program for groundwater quality in areas of sensitive soils and surface water quality downstream of the development should be developed. The Office of Drinking Water will be reviewing additional reports provided by the proponent to determine any potential impact on the water quality of the Assiniboine River for domestic purposes and may have further comments. All fuel storage used on site during and after construction must comply with Manitoba Regulation 188/2001. Manitoba Regulation 97/88R has been repealed.

Disposition:

These comments can be addressed through licence conditions.

Historic Resources Branch No concerns.

Mines Branch No concerns.

Petroleum Branch No concerns.

Highway Planning and Design No concerns.

Soils and Crops Branch The Irrigation Development project application includes less land than was reviewed in the supporting documents. Manitoba Agriculture, Food and Rural Initiatives comments, only apply to the lands described in section 2.1.3. MAFRI does note that the pivot diagramed on the irrigation pipeline route appendix, is drawn to be on 3 parcels of land not listed in section 2.1.3. Parts of the NE 16-10-8W, NW 15-10-8W and SW 5-10-8W will also be irrigated by this pivot. The majority of the pivot drawn is located on the SE 16-10-8W. The other parcels of land are described in the agronomic and land assessments.

The documents present a comprehensive base of information along with a consideration of this data and subsequent recommendations.

I would like to offer the following comments regarding statements and information contained in the Soils report prepared by AXIS.

The following comments refer to errors in tables and reference of the land report. These comments do not affect the review of the land assessment for the Environment Act Proposal.

Table 3.1 requires the following edits:

Pot Suit rating for the Edenburg soil is missing (rated as 2). Soil Name "Newton" should read as "Newton Siding" Birkenhead is entered twice, delete one entry. Hochfeld should read as "Hochfeld" and a rating of "1" is required for Pot Suit. Long Plain (LOP) requires a Pot Suit. Rating of "3". Long Plain (LOP1) requires – Ag Cap = 4M, Irr Suit = 2 mw, Pot Suit = 3. Poplar Point (PPR) requires – Ag Cap = 3 I, Irr Suit = 3 w, Pot Suit = 3.

Page 17. In section on Drainage Regime – The following statement, "However, these soils tend to be environmentally sensitive, in that water and soluble nutrients applied to these soils readily percolate downward through the soil profile and below the rooting zone, and into the underlying pervious material" should be edited to indicate that:

Only sandy, well drained soils are subject to this concern, clay loam to clay soils that are well drained are not at the same risk.

3 Maps of Suitability of Land for Irrigated Potato Production should be properly referenced to "Manitoba Agriculture, Food and Rural Initiatives---" instead of the Western Land Resource Group----.

Page 35. Reference for Potential Environment Impact should be replaced with: Podolsky, G.P. 1998. Soils of the Rural Municipality of Louise. Soils Report No. D83, Soil Resource Section, Manitoba Agriculture.

A footnote should be added to derived or interpretive maps to indicate that the information on the maps depicts the dominant condition.

Edits required in Table A.1 Appendix II.

- explanation and clarification of codes, WWC has "x" and "o" for stones "x" and "o" for erosion
- what does 1,2,3 refer to in the column slope-len?
- Is fin-rate the potato suitability rating?
- E-rat with numbers such as -9, 135.5?
- E-class, explanation of F, M, H, S.

- Irrig-cla1 has values that are not valid. Ex. Axys-ID 203 has a value of 1:00 AM?

General comment as a result of map (Soil-Landscape Inspection sites and polygon Numbers) that indicates soil inspection points undertaken in the field study. Field inspection points should be selected so that they are representative of polygons, therefore, sampling at or near soil boundaries should be minimized.

Table A.2 Site LP03 – Soil series-ASS is classified as a GI. R. B., not R.B.

Site LP07 – Soil series WWL is not a valid symbol.

Site LP12 – Soil subgroup should be GI.R.B.

As a result of this review, it would be useful to include a tabular summary of Dryland Agricultural Capability for the land base so that the sustainability of dryland farming on this land base can be more readily evaluated, as the major limitations for crop production in 2 of 3 years will be severe and very severe limitations due to moisture deficits.

The following comments do reflect concerns of the agronomic report. Table 6.1, page 49 lists soils that are listed as a "no" for irrigation suitability, however, pivots on the irrigation pipeline route map do have pipelines on them. The parcels are NE-07-10-08-W, NE-17-10-08-W, NE-20-10-08-W, SE-16-10-08-W, and SW-19-10-07-W.

The comments on the bottom of page 48 indicate that there is still uncertainty on the final irrigation and system design. However, the pipeline route map does indicate these land parcels will be irrigated.

Comments from the consultant specifically on these 5 land parcels describing the limitation to irrigation and the mitigation plans would be desirable.

The land report adequately describes the need for drainage and erosion control.

I would like to offer the following comments on the Agronomic Review.

6.1 I concur with the consultant's comments identifying the erosion potential on soils with slopes. Maintaining crop residue is important to reduce the erosion potential. The practice of spreading straw is not usually practiced in Manitoba due to economic concerns. I note that some farmers will use chemical methods to control weeds rather than tillage, following appropriate agronomic practices to minimize erosion on soils with slopes.

6.2 Soil testing is important and should be done regularly to determine the status of initial available nutrients.

6.2.1.2 More than 40 lbs of available nitrogen can be applied if soil tests show low available nitrogen. Provincial recommendations or fertilizer and manure applications should be followed.

Disposition:

Additional information was requested to address a number of these comments respecting parcels to be irrigated. All comments were forwarded to the proponent's consultant for information. Several of the comments can be addressed as licence conditions.

<u>Canadian Environmental Assessment Agency</u> The Department of Indian and Northern Affairs (INAC) has provided notification than an environmental assessment (EA) under the Canadian Environmental Assessment Act (the Act) will be required with respect to the project. The contact person at INAC will be Gerald Bird. (Contact list provided with comments.) The Department of Fisheries and Oceans has indicated that they require additional project information prior to making a determination of whether they will require an environmental assessment under the Act. A letter detailing their information requirements will follow.

Since this project requires a multi-jurisdictional EA, I will act as the Federal Environmental Assessment Coordinator (FEAC) representing the Canadian Environmental Assessment Agency during the EA review. The EA will be conducted in accordance with the Canada-Manitoba Agreement on Environmental Assessment Cooperation.

In addition, DFO, INAC, Environment Canada and the Canadian Coast Guard (CCG) have identified that they would be able to offer specialist information with respect to the project review. Both INAC and CCG also have an interest in participating in the EA process.

Fisheries and Oceans Canada DFO requires sufficient information to determine whether the project will result in the harmful alteration, disruption or destruction of fish habitat. The information submitted to date is inadequate to make this determination. The following information is requested:

- Information on the material used to construct the ramp illustrated in figures 5 and 6 of the Proposal report, and the location of the silt fence to be placed as cited on page 2-14 of the report. Timing of construction stages and post construction stabilization and reclamation. Information on the type of erosion control blanket used.
- Information on the physical restriction to be used as a method of reducing flow to meet intake screen velocity requirements.
- Information on the placement of riprap below the average annual high water mark this will be an infill.

- Information on intake screen design and possibly a monitoring plan depending on the design criteria chosen.
- Information on possible velocity barriers between pump intakes.
- Information on the monitoring of instream flows at the location for water withdrawal.
- Confirmation of the number of pumping locations, the number of pumps to be utilized, and the withdrawal rates of each pump to be utilized.

Disposition:

These comments were forwarded to the proponent's consultants to be addressed directly. Screening requirements can be addressed as a licence requirement.

Environment Canada We note that, while potatoes will be grown on a three year rotation, the intention is to irrigate the lands in other years for germination of non-potato crops, such as cereal, corn or lentils. This would result in higher overall application rates of water to the lands than are normally seen in other similar irrigation projects, where we understand irrigation on a particular parcel of land is limited to once every three years. Higher rates of irrigation have the potential to increase soil salinization and cause other potential problems, and these potential impacts should be considered. (Since we did not receive a copy of the report prepared by AXYS Environmental Consulting Ltd. related to irrigation suitability etc., which is referenced in Cousin's report, it is not known if these aspects are covered in the AXYS report.)

Section 2.9.2 – The Species-at-Risk Act (SARA) is now in effect in and the assessment report should contain a discussion of the potential impacts of the project, if any, on species covered by the Act. Additional information on SARA is available at http://www.sararegistry.gc.ca/default_e.cfm and http://www.speciesatrisk.gc.ca/default_e.cfm

Although it appears from Plans 1 and 2 that the pipeline layout will generally occur on road allowances and across cultivated lands, there may be some short sections that traverse wooded or natural areas. Where possible, alternate routes should be considered to avoid such areas, to the extent practical, to minimize disruptions and impacts to wildlife and plant species. It is also important to schedule any work in areas where migratory birds may be present outside of the nesting and rearing season, which generally occurs from May to the end of July.

Alternatives – although sprinkler-type systems seem to be the most common form of irrigation equipment, a discussion of alternative, lower-flow systems such as drip irrigation, should be included in the report (e.g. in section 2.7.6). We understand, for example, that drip irrigation could be an option for row crops such as potatoes. Other forms of irrigation may have the potential to reduce impacts, including reducing demands on water from the Assiniboine River, which is already under considerable stress.

Disposition:

Additional information will be requested to address several of these comments. Other comments can be addressed through licence conditions.

<u>**Canadian Coast Guard</u>** A letter was provided to the proponent's consultant indicating that the proposed work will not substantially interfere with navigation if it is built or placed, and maintained in accordance with the plans, site description and schedule provided by the proponent. Compliance with three recommendations was requested in the interest of navigation safety:</u>

- 1. The water intake pumps will extend no more than 10 m into the Assiniboine River at any time during the navigation season.
- 2. The water intake pumps should be removed from the river at the end of each irrigation season.
- 3. The water intake pumps should be marked with reflective material visible from all sides.

ADDITIONAL INFORMATION:

Additional information was requested on April 19, 2004 to address the comments of the Soils and Crops Branch and Environment Canada. The attached reply dated July 6, 2004 was received on July 13, 2004. The additional information clarifies the concerns identified by the Soils and Crops Branch. Although the additional information does not provide a satisfactory amount of commentary, concerns about land suitability for irrigation can be addressed by excluding questionable land parcels from the project as a licence condition. Similarly, little information was provided to address Environment Canada's comments. Once again, land exclusions and other precautionary licence conditions can address the comments in the absence of additional assessment information.

PUBLIC HEARING:

No requests were received for a public hearing. Accordingly, 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 Red River Region.

UPDATE:

Following the circulation of the draft licence to the TAC in the summer of 2004 and a review of the draft licence by the proponent's consultant, the proponent accepted the removal of unsuitable portions of fields from the draft licence. At the same time, the Canadian Environmental Assessment Agency requested that the licence not be finalized until federal regulatory requirements were met. A letter from the consultant was received on October 21, 2005 containing further information in an effort to return the excluded land parcels to the project. Following a review of this information by Environmental Assessment and Licensing and Manitoba Agriculture, Food and Rural Initiatives, the draft licence was revised to include the original land parcels. Parcels which had been previously excluded were identified in the revised draft licence as requiring surface or subsurface drainage prior to irrigation.

As of January 11, 2006, federal regulatory requirements remained outstanding. Specifically, a fish habitat compensation plan and a detailed intake screen design must be provided and approved by DFO before the Environment Act Licence is finalized.

Federal regulatory requirements were addressed by June 5, 2006. The Canadian Environmental Assessment Agency indicated that Manitoba Conservation could proceed to finalize its Environment Act Licence.

PREPARED BY:

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