

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Agassiz Irrigation Association Inc.
PROPOSAL NAME: Irrigation Reservoirs - 1996 Projects -
Plum River Phase V and Morris River Phase II
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 3636.40

OVERVIEW:

The Proposal was received on July 8, 1996. It was dated July 3, 1996. The advertisement of the proposal was as follows:

“A Proposal has been filed by the Agassiz Irrigation Association for its irrigation reservoir construction program for 1996. The program includes two main components. The Plum River Phase V component involves the renovation of 11 existing reservoirs on or near Plum River tributaries, and the construction of one new reservoir. The new reservoir would have a capacity of approximately 100 cubic decametres (80 acre-feet) and would be located in SE 13-2-4W. The Morris River Phase II component involves the construction of three additional reservoirs on tributaries of the Morris River. These would be located on North Tobacco Creek in SE 33-5-6W (62 cubic decametres or 50 acre-feet) and on the Boyne River in SW 29-6-6W (160 cubic decametres or 130 acre-feet). A second Boyne River site to store 200 cubic decametres (160 acre-feet) has not yet been selected. As with previous phases, the reservoirs would be filled during high flow periods in the spring and summer. Reservoir filling operations would be limited to allow other consumptive and instream users of the streams to obtain their water supplies. Construction on both components of the program is planned over the next three years.”

The Proposal was advertised in the Carman Valley Leader and in the Morden Times on Monday, July 29, 1996. It was placed in the Main, Centennial, Eco-Network and South Central Regional Library (Morden) public registries. It was distributed to TAC members on July 22, 1996. The closing date for comments from members of the public and TAC members was August 22, 1996.

COMMENTS FROM THE PUBLIC:

No public responses were received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Environment - South-Central Region The proponent must ensure the proposed dugouts are to be used for irrigation purposes only, and not a means of sewage, livestock waste or chemical disposal.

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Disposition:

This recommendation can be included as a licence condition.

Manitoba Environment - Water Quality Management The concern from a water quality perspective is that proper allocation is determined in order to sustain the integrity of the streams, i.e. habitat and associated aquatic life. Provided adequate instream flows are maintained, there is not a perceived problem with water quality. The main question is whether the estimated calculations and assumptions will provide adequate instream flows. Limited data and flow data from high spring flows in the spring of 1995 doesn't really answer these questions. The proposed construction schedule is okay but the licence should specify that no construction occurs between April 1 - June 15 in case identified timelines cannot be met. Natural Resources Fisheries will be better able to address concerns related to fish and how far upstream fish utilize the streams. The pump lines should be screened to prevent fish from getting sucked into the lines. Details are needed on the diversion of the South Rosenheim Drain before comments can be provided.

Disposition:

Comments on minimum instream flow requirements have also been provided by DNR and DFO. Further discussion is needed to resolve this matter. This can be addressed as a licence condition in a manner similar to other recent licences for irrigation projects. With respect to fish screening requirements, most of the sites are above areas used by fish. The exceptions may be the Boyne sites. In light of fish screening discussions with the Central Manitoba Irrigators Association, it would be desirable to discuss fish screening requirements with DFO and DNR staff at the same time as MIF issues are being resolved. This discussion therefore should be a licence condition.

Historic Resources Branch No concerns.

Mines Branch No concerns.

Highway Planning and Design No specific concerns about the proposal, but the proponent should be aware of the following Statutory Regulations under the Highways Protection Act and/or the Highways and Transportation Department Act. Permits may be required for developments such as:

- new, modified or relocated access to a Provincial Trunk Highway (PTH) or Provincial Road (PR);
- any change in land use and placing any structures on, under or above ground within PTH or PR control lines;
- discharging of water or other liquid materials into a ditch alongside a PTH or PR; and
- placing any trees or plantings within PTH or PR control lines.

If there are any specific questions regarding these regulations, the proponent is encouraged to call the Regional Technical Services Engineer in Portage la Prairie at (204) 239-3912.

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Disposition:

This information will be forwarded to the Proponent.

Rural Development-Community Economic Development No land use concerns.

Medical Officer of Health Health concerns relate to groundwater (long term and short term) and how proper land management can be controlled in order to avoid this.

Disposition:

Groundwater monitoring and remediation measures for previously constructed dugouts are discussed in the Proposal. Land management to address groundwater impacts can be addressed as a licence condition.

Natural Resources In general agreement with the proposal. The following specific comments are made: MIF provisions should use the Tesseman's modification model. The proponent should compare calculated MIFs with results from applying Tesseman's modification of the Tennant Method. The data used to calculate the MIF should be provided. Estimated instream flow requirements are only approximations and some level of ground proofing should occur. The inventory survey of Buffalo Creek carried out by DNR Fisheries Branch in the vicinity of site S11b only showed there were fish present and did not evaluate the habitat suitability. It is an overstatement to conclude that those MIFs have biological validity and reducing the MIF at that site may be unwarranted.

The proponent should indicate the anticipated level and duration of flushing flows. There appears to be some confusion regarding what is included in the 50% of the 80% exceedence reserve volume. This should be clarified with the proponent. DNR Fisheries Branch should be consulted when designing the culverts and rock diversion weirs. Pump intakes should be screened to prevent the entrainment and entrapment of fish. DNR Fisheries Branch should be consulted for locations requiring screening and screening design. To prevent sedimentation, construction practices should be followed consistent

with *Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat - May 1996*. The proponent is encouraged to work with DNR Fisheries, DFO and local game and fish organizations to design and implement fish habitat preservation, remediation and enhancement works. If the proponent decides to proceed with the alternative project described in the addendum, detailed plans should be submitted for review and comment. The project is subject to licensing under the Water Rights Act.

Some general comments are also made: it would be helpful to have a comprehensive plan of the overall development so that a more complete understanding of the impacts could be obtained. It would also be valuable if hydrographs for each of the waterways existing or proposed developments showing the pre-development hydrograph and a post development hydrograph could be included.

Disposition:

A number of these comments require additional discussion. This can be addressed as a licence condition as discussed above. Other specific comments can be addressed as specific licence conditions. With respect to the general comments, the suggested information should be included in future Environment Act proposals. It is apparent that the

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development of water storage facilities for irrigation will approach the allocation limit on a number of waterways in the project area. Therefore, future proposals should address the cumulative impacts of the developments undertaken in the past and the anticipated impact of the ultimate level of development on the affected waterways.

Canadian Environmental Assessment Agency Application of the Canadian Environmental Assessment Act with respect to this project will not be required. DFO has an interest in the project and would like to participate in the provincial review.

Fisheries and Oceans Concerns are similar to those previously expressed for the AIA Phases I to IV proposals and the CMIA Whitemud Phase I project. The method used to determine minimum instream flows (MIFs) fails to account for streamflow fluctuations and seasonal variability. Water withdrawal should not be allowed until further analysis is complete and a method to calculate MIF has been approved by MFB (Manitoba Fisheries Branch) and DFO.

DFO is concerned with the narrow interpretation of MIF and the cumulative effects of further development. The proponent assumes a full allocation level for irrigation based on 50% of the 80% exceedence volume. Under this scenario, the entire spring flow over and above the MIF could eventually be captured and stored for irrigation in some years. The cumulative effect of these reservoirs could result in serious adverse impacts on fish and fish habitat by greatly reducing the flows that support spring spawning and incubation

and ensure channel maintenance. The current proposal provides no consideration for the importance of flushing flows in its discussion of instream flow needs and their derivation for the purpose of this development. New methods or techniques for determining flow requirements for different conditions should be developed. Specific methods are needed for assessing instream flows in small watersheds and high gradient streams, to assess peaking impacts and for determining channel maintenance flows.

Monitoring studies are essential to ensure that MIFs were actually implemented and their effects were as intended. Monitoring should be included as a condition of environmental approval. The addenda describing an alternative to renovating the E5a reservoir lacks sufficient detail to allow comment. Withdrawals should be screened in accordance with DFO's *Freshwater Intake End-of-Pipe Fish Screen Guideline* (1995) and *Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat* (1996) should be adhered to. In addition, any instream works should be designed in consultation with MFB.

Disposition:

These concerns can be addressed in licence conditions.

PUBLIC HEARING:

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

RECOMMENDATION:

All comments received on the Proposal can be addressed as licence conditions.

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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 South-Central Region.

PREPARED BY:

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September 11, 1996

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