

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Southwest Resource Management Ltd.
PROPOSAL NAME: Off Stream Storage Reservoir

CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 4297.00

OVERVIEW:

The Proposal was received on August 27, 1997. It was dated August 27, 1997. The advertisement of the proposal was as follows:

“A Proposal has been filed by Southwest Resource Management Ltd. for the construction and operation of an off channel irrigation reservoir in NE 28-5-19W. The reservoir would store 37 cubic decametres (30 acre-feet) of water and would be constructed in 1998. It would then be filled by pumping from an intermittent creek adjacent to the site during the spring runoff period each year.”

The Proposal was advertised in the Boissevain Recorder on Wednesday, February 4, 1998. It was placed in the Main, Centennial, Eco-Network, Western Manitoba Regional Library (Brandon) and Lakeland Regional Library (Killarney) public registries. It was distributed to TAC members on January 29, 1998. The closing date for comments from members of the public and TAC members was February 27, 1998.

COMMENTS FROM THE PUBLIC:

No public responses were received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Environment - Water Quality Management The concept of capturing excess runoff in spring is reasonable provided enough flow is left to maintain the integrity of the stream course and habitats for areas further downstream. Fisheries will better determine if fish utilize this water course for spawning purposes. An irrigation management plan may be something to consider. The proposal indicates that irrigation will take place every 3-4 years, but that could change. Agriculture indicates that soils in the area may be subject to upward capillary action and salinity control could be a problem

if good management is not used. Increased salinity on surface soils and leaching of salts into water courses during runoff events from this project may not affect the stream's overall water quality, but the operator should be conscious of proper management techniques now and in the future.

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Disposition:

A minimum instream flow downstream of the Development should be specified as a licence condition. In view of the salinity concern identified in the Proposal, a limitation on irrigation should also be specified, along with ongoing salinity monitoring on the parcels to be irrigated.

Manitoba Environment - Terrestrial Quality Management Given the recommendation not to irrigate this land and the uncertainty of water to fill the reservoir, the project should not proceed.

Disposition:

The potential salinity problem associated with the land to be irrigated can be addressed as outlined above. (Manitoba Agriculture modified its initial recommendation not to irrigate the parcel after further consultation with the proponent respecting the frequency of irrigation and management practices to be used.) With respect to the availability of water to fill the reservoir, the Proponent is aware of the risks involved. A minimum instream flow would be specified as a licence condition to protect aquatic and riparian habitat.

Historic Resources Branch No concerns. Given the low potential for heritage resources to be present, a field examination by the Historic Resources Branch is not necessary.

Mines Branch No concerns.

Highway Planning and Design No concerns.

Medical Officer of Health - South Westman Regional Health Authority Comments: Minimize the risk of contamination by fuel or chemical spills during construction, ensure appropriate waste disposal as per existing environmental regulations. Dust, noise, gaseous and particulate emissions during construction may be a concern. Consider monitoring groundwater at site and in adjacent private wells, if any, to ensure that at risk individuals are not consuming drinking water with high sodium levels. Fencing and other safety measures should be included in the licence.

Disposition:

These comments can be addressed as licence conditions where appropriate. Waste disposal should not be a concern as no demolition is required to construct the project. Construction emissions will not be a concern as the project will be constructed in a relatively isolated agricultural area. Soil salinity monitoring discussed above will detect increased salinity levels before salinity levels change in underlying groundwater. Fencing has not been required at other irrigation reservoirs due to their distance from population centres and the relatively flat and stable inside sideslopes of the reservoirs.

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Natural Resources Environmental licensing of this project should require that a minimum instream flow rate be determined. This should be done by the Manitoba Fisheries Branch in consultation with the Water Resources Branch. Investigations may be needed to determine the upstream point of fisheries interest, which has not been defined. This information is needed to determine pump screening needs. Should the rock weir be needed for pumping purposes it may need to be redesigned as it is not “fish friendly”. The specific dimensions for the work site need to be provided with cross section, longitudinal profile and plan views. The outside edge of the dugout dike should lie at least 10 metres from the stream’s high water mark to allow an adequate riparian area for the stream.

Disposition:

A minimum instream flow rate is needed for the project; the rate and location of the MIF should be determined using the Tessman method accepted by the Fisheries Branch, Water Resources Branch and Environmental Approvals late in 1997. Therefore, this requirement can be addressed in licence conditions. Plans for the project will require approval prior to construction, so any alterations needed to accommodate fish passage can be included if fish passage is necessary at the project site. The Proponent will be advised of this potential requirement. A setback distance from the reservoir to the stream may be specified as a licence condition.

Canadian Environmental Assessment Agency An environmental assessment under The Canadian Environmental Assessment Act with respect to this project will be conducted by PFRA. Fisheries and Oceans would like additional information prior to making a decision about the project. The Canadian Coast Guard has an interest in the project and would like to participate in the provincial review.

Fisheries and Oceans The proposal is lacking in detail in a number of respects. There is no detailed map of the project location showing the watercourse, although it appears to be an unnamed tributary of the Souris River. The intermittent nature of the

watercourse may mean that it does not support fish habitat in the vicinity of the proposed dugout. However, there may be downstream impacts of diverting runoff that are important for sustaining spawning, nursery or feeding habitats for fish in the lower reach of this stream or in the Souris River. This potential impact has not been adequately discussed. It has been assumed that pumping rates would equal the flow in the stream and that the total spring runoff would be available for storage. This is unrealistic as instream flows are required to preserve downstream and possibly local aquatic resources. Information should be provided regarding actual flows in the stream and how it compares to the proposed withdrawal rate. Additional information should be provided on the estimated available spring flow volumes - a volume exceedence curve. An MIF requirement should be established in accordance with the methodology recommended by the provincial instream flow group for the AIA proposals.

DFO-HM is concerned with the potential cumulative impacts of current and further irrigation development. There is no indication of whether this project is the first of a series of proposals for irrigation in this watershed. The cumulative effect of more reservoirs could result in adverse impacts for fish and fish habitat by greatly reducing the flows that support spring spawning and incubation and ensure channel maintenance.

Until the foregoing information deficiencies are addressed, DFO-HM is unable to determine whether authorization pursuant to Section 35(2) of the Fisheries Act is required for the proposal.

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Disposition:

Concerns respecting minimum instream flows and pumping rates can be addressed as licence conditions. Cumulative impacts cannot be determined as it is not known whether further development will be proposed on the waterway in the future. If it is, cumulative impacts of the presently proposed development and the future development can be jointly assessed at that time.

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. 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 Park-West Region.

PREPARED BY:

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