

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Agassiz Resource Management Ltd.
PROPOSAL NAME: Smith Potato Farms Irrigation Project
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 5263.00

OVERVIEW:

The Proposal was received on April 24, 2007. It was dated April 30, 2007. The advertisement of the Proposal was as follows:

“A Proposal has been filed by Agassiz Resource Management Ltd. on behalf of Smith Potato Farms Ltd. to irrigate approximately 105 ha (260 acres) annually in rotation on a land base of 295 ha (730 acres). The project land is located south of Carman in the Rural Municipality of Dufferin. Approximately 155 dam³ (125 acre-feet) of water would be applied annually, using water obtained from the Boyne River. Water required for the project would be diverted from the river during the spring runoff period and stored in an off channel reservoir to be constructed in SW 17-6-4W.”

The Proposal was advertised in the Carman Valley Leader on Friday, May 11, 2007. It was placed in the Main, Millennium Public Library (Winnipeg), Eco-Network and South Central Regional Library (Morden) public registries. It was distributed to TAC members on May 7, 2007. The closing date for comments from members of the public and TAC members was June 12, 2007.

COMMENTS FROM THE PUBLIC:

Rural Municipality of Dufferin The R.M. of Dufferin Council is very much in favour of retention ponds for irrigation purposes; especially when filling occurs during spring runoff. They are also pleased that more attention is being made to the monitoring of licenses for filling these ponds.

A concern that Council has is with fuel tanks used for filling pumps and tractors are sitting at the edge of the Stephenfield Lake and Boyne River with the potential of being spilled into our potable water source. It could be beneficial to require these to be bermed or kept so many feet from the water.

Disposition:

The comment concerning fuel storage can be addressed through licence conditions.

Glen Koroluk It is our understanding that the Boyne River system and Stephenfield Reservoir are over allocated for any new water withdrawals. It appears that spring runoff will be used as the main supplement for these proposed projects and up to 3700 (one half of 80% rule) dam³ may be available on the Boyne system. Before we make any decision on the sustainability of these projects, can you provide us some clarification on the following issues.

- 1) Is the 3700 dam³ based on an average of many years or does it correspond to 1982? Can the proponent provide spring runoff estimates of low flow years since records have been kept?
- 2) Does Manitoba have an estimate of the Minimum Instream Flow (MIF) for the Boyne River for the summer period?
- 3) Can the proponents provide evaporation estimates (based on climate modeling) for the proposed dugouts? ie, in a hot dry summer, how much water is lost through evaporation?
- 4) What contingency plan do the proponents have in regard to water shortages?
- 5) Do the proponents intend to construct tile drainage in their fields and if so, will any measures be taken to reduce pollutants entering the surface water ecosystem? Will there be any requirements for water quality monitoring? (ground and surface)
- 6) There appears to be numerous domestic water wells nearby the proposed projects, can the proponents and department provide groundwater quality results of these wells?
- 7) Will the nutrient management plans conform to the new nutrient management regulation under the Water Protection Act? Can the proponent provide detailed pollution hazard maps of their proposed operations?
- 8) Can the proponents provide an estimate as to the type, amount, purpose and timing of pesticides that will be utilized in a typical growing year?
- 9) Can the proponents indicate whether their proposals will reduce GHG emissions, increase GHG emissions or be GHG neutral?
- 10) Will there be a loss of natural habitat? ie, wooded areas, shrubland, natural grasslands, permanent vegetation and if so, how much?

Please place these comments in the public registry.

Disposition:

These comments were referred to the proponent's consultant for comment. The comments will be provided to the writer when available. Several of the comments involve items that are routinely addressed in project design and licence conditions.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**Manitoba Conservation – Sustainable Resource Management Branch**

1. Approval is subject to the necessary Crown Lands Act allocation where applicable. In respect of Crown land, no land tenure is granted by way of an environmental approval. Applicants must apply for applicable Crown Lands Act Permit/Lease which will be subject to standard Crown Land & Property Agency review process.
2. On page 4-6, the proponent states that all pipeline right-of-ways in the grassed ditches or native lands will be re-vegetated to protect against erosion. Any native areas that are disturbed should be re-vegetated with native species and the proponent should monitor all disturbed sites to make sure that invasive species such as leafy spurge don't become established.
3. The proponent needs to be aware that if rare or endangered species are present, removal or destruction of individuals or their habitat may be in contravention of Subsection 10(1) "Prohibition" of The Endangered Species Act (Manitoba). In addition, the federal Species at Risk Act prohibits any activities that kill or otherwise harm COSEWIC listed plant or animal species and prohibits destruction of their habitat. If species of concern are present, the proponent must contact the Biodiversity Conservation Section of the Wildlife and Ecosystem Protection Branch (Ronald Hempel, 945-6998) to discuss possible mitigation options. Note: all proponents who conduct biological surveys in conjunction with their developments are asked to share that data with the Biodiversity Conservation Section. This will provide important updates to the Manitoba CDC database.
4. Killing or harming migratory birds and disturbance, destruction or taking of their nests or eggs is prohibited under the Migratory Birds Convention Act. The proponent is responsible for ensuring that no migratory birds will be harmed and no active nests of migratory birds will be destroyed as a result of the development. If migratory birds or their nests may be harmed by this development, the proponent must contact the Canadian Wildlife Service for further direction.
5. The licence should require that petroleum storage facilities for the diesel powered water pumps should be located no less than 100m from any surface water body and make specific reference to Manitoba Regulation 188/2001.
6. The licence should also require monitoring wells to monitor seepage from the proposed water storage reservoir as well as making a general provision for surface & ground water monitoring as requested by the "Director".

Disposition:

Several of these comments were brought to the proponent's attention as design considerations. Most are also addressable through licence conditions. With respect to petroleum storage, adherence to MR 188/2001 is a standard licence condition. Because the pumping unit at the water source will be diesel powered, it is not practical to have the fuel tank more than 100 metres from the pump. This is addressed through standard construction practices for diesel pumping units and through licence conditions. With respect to monitoring wells to detect seepage from the reservoir, the reservoir will be designed and operated to minimize seepage, and underlying groundwater is not potable. Accordingly, seepage from the reservoir is not expected to be a significant issue of concern.

Manitoba Water Stewardship – Planning and Coordination Fisheries Branch has concerns with this proposal. Currently we do not believe there has been an instream flow needs study of the Boyne River. According to the Stephenfield Watershed Plan, the Boyne River's firm annual water supply is fully developed. While the plan also indicated that spring runoff provides additional water supply capacity by diverting from spring flows into off-channel reservoirs, North South Consultants (1999) noted that disruption of spring flows in the Boyne River has the potential to significantly affect channel morphology. Reduced flows may result in siltation, vegetation encroachment, and narrowing of the channel, which can reduce the flood carrying capacity of the channel as well as the amount of stream habitat. How is this proposal reconciled in terms of this report's recommendations? In the absence of any other information we're assuming that the amount of allocatable water in this proposal is provided by the half of 80 rule as per the MOU, however; it should be noted that the Boyne River, at least downstream from the Stephenfield Reservoir, is not considered an intermittent stream.

There needs to be some assurance in the allocation by Water Branch that until an IFN is determined, this and the accumulative impact of the additional "irrigation requests for withdrawals" does not infringe on the hydrograph (volume, duration, magnitude and timing), the flows needed to maintain channel forming flows (2 of 3 maximum instantaneous flows) as well as overbank flooding and downstream water availability. Given present and future demands it would be logical to request the installation of a hydrological monitoring station(s) in locations where these intakes are proposed to be situated. Further the Boyne River should be considered a high priority within the Department's mandate to determine IFN.

This request for withdrawal is also going to occur within the spring spawning timing window of April 15th – June 30th. This is a very time sensitive period due to the potential to impinge/entrain spring spawning fish eggs and larvae. The EAP indicates adherence to the end of pipe screen requirements for withdrawals prior to July 1st however, these screening requirements are for the protection of fish 25mm and larger, which does not address many spring spawning fish eggs and larvae (e.g. walleye eggs are ~1.5-2.1 mm and fry are 5.8-8.7 mm). We request that the clause recently used in other irrigation licences, which reflects the need for the proponent to change their screening requirements if it is deemed necessary, be included for this proposal.

Both project specific and accumulatively, the effect of withdrawing water during this period of time on larval fish and eggs is unknown. Further to this we have concerns with the accumulative effect of water withdrawals on the hydrograph of the Boyne River. This river supports all life stages for several sport fish species. It is already a highly altered system and increased demands by users continue to strain this river.

Finally as DFO has jurisdiction over fish habitat the above comments/recommendations do not take precedent over their review.

This proposal does address the majority of my concerns related to water quality however, due to the risk of increased runoff following irrigation, nutrient management should include phosphorus in addition to nitrogen. Reducing the application of unnecessary phosphorus is crucial because excessive phosphorus can build up in the soil and potentially runoff into surface water. Manitoba is proposing to include phosphorus as a nutrient by which fertilizer application through manure, inorganic fertilizer, or municipal waste sludge to agricultural lands may be limited. The Province of Manitoba is committed to reducing nutrient contributions to Lake Winnipeg to 1970s levels.

All of the identified land should have a soil-test phosphorus concentration of less than 60 ppm (Olsen sodium bicarbonate extraction) prior to nutrient application and irrigation. If soil tests reveal that phosphorus concentrations are above 60 ppm, then fertilizer should be applied based on residual soil-test phosphorus concentrations. Fertilizer application should not occur on lands with a soil-test phosphorus concentration of greater than 180 ppm.

Disposition:

Several of the above comments concerning water allocation and instream flow needs involve matters internal to Manitoba Water Stewardship (MWS). As the Stephenfield Reservoir/Boyne River system is a relatively large and productive watershed with large and reliable spring flows, it is unlikely that spring withdrawals for irrigation use would significantly reduce the peak or volume of the spring hydrograph downstream of the reservoir. Summer flows on the Boyne River downstream of the reservoir have been fully allocated for many years. An instream flow needs assessment has not been completed for the river downstream of the reservoir; prioritization for this will be done within MWS. The need for any additional streamflow gauging will also be assessed by MWS. The standard licence conditions suggested in the comments can be used to address several items.

With respect to water quality comments, most items can be addressed as licence conditions. Specific information concerning phosphorus sampling was provided to the proponent for information in complying with licence conditions.

Historic Resources Branch No concerns.

Mines Branch No concerns.

Canadian Environmental Assessment Agency I have undertaken a survey of federal departments with respect to determining interest in the project noted. I can confirm that the project information provided has been distributed to all federal departments with a potential interest. I am enclosing copies of the relevant responses for your file.

Based on the responses to the federal survey, I have not yet been able to determine whether the application of the Canadian Environmental Assessment Act will be required for this project. Fisheries and Oceans Canada (DFO) is still in the process of determining whether an environmental assessment (EA) under the CEAA will be required. Prairie Farm Rehabilitation Administration (PFRA) and Health Canada are both willing to provide specialist advice upon request. PFRA also wishes to participate in the provincial review. Transport Canada urges the proponent to contact the Navigable Waters Protection Program at its earliest convenience as a letter of exemption may be required. (Contact information provided.)

Disposition:

Additional information to address any DFO information requirements can be obtained upon request.

ADDITIONAL INFORMATION:

No additional information was required to address TAC comments, pending the receipt of comments from DFO. Comments on the questions raised in the public review were requested on June 13, 2007. These comments will be forwarded to the interested member of the public upon receipt.

PUBLIC HEARING:

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

RECOMMENDATION:

All comments received on environmental aspects of the Proposal can be addressed as licence conditions or have been provided to the proponent for information. Any additional information requested by DFO during the draft licence review period should be obtained and corresponding revisions can be made in the draft licence if necessary. 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 Central Region.

PREPARED BY:

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June 20, 2007

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