

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Agassiz Resource Management Ltd.
PROPOSAL NAME: Kroeker Farms Irrigation Project
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 5265.00

OVERVIEW:

The Proposal was received on May 3, 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 Kroeker Farms to add land and additional water supplies to an existing irrigation development in the Stephenfield vicinity of the rural municipalities of Dufferin and Thompson. The expanded development would irrigate up to 405 ha (1000 acres) annually in rotation on a land base of 1538 ha (3800 acres). Up to 826 dam³ (670 acre-feet) of water would be applied annually, using water obtained from the Boyne River and the Stephenfield Reservoir. Approximately one third of the water used by the project would be diverted from the Boyne River and the Stephenfield Reservoir at three existing pumping sites during the irrigation season under existing Water Rights licenses. The remainder of the water would be diverted during the spring runoff season and stored in three off channel reservoirs, two of which are existing and one of which is proposed.”

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.

Raymond, Therese and Bryan Faucher We oppose this irrigation project. We own a piece of property NE 24-6-7W in the R. M. of Dufferin just one mile south of the Stephenfield Reservoir and Provincial Park.

We use the waterway – Stephenfield Reservoir in summer for boating, swimming and fishing. Since year 1992 – 15 years – I saw the water running down the spillway only one time. Last year, three boat docks were not used due to low water levels – a drop of six feet.

Our R. M. of Dufferin – that’s us the taxpayers – spend thousands and thousands of dollars each year building small dams, on farmers land, to control the flow of water from the Pembina Escarpment. It also controls soil erosion and it gives the taxpayers of the R. M. of Dufferin a steady supply of, but limited water. To allow this type of irrigation to go ahead would be irresponsible on your part Manitoba Conservation. Remember – this reservoir is not fed by the Assiniboine River, but by small creeks from the Pembina escarpment.

The R. M.s of Dufferin, Thompson and Stanley are presently looking at getting extra water from the Sandilands Aquifer. As the Town of Carman grows, they will need a lot more water. For those who are connected to these rural waterlines throughout the R. M. of Dufferin we have to pay a good price for this water.

These big irrigation farms want our water supply for free. I don’t think that the taxpayers in the R. M. of Dufferin are willing to give these aggressive companies a blank cheque so that they can fatten their bank accounts.

Do like the rest of the farmers around the R. M. of Dufferin – wait for Mother Nature – rain.

Why in the first place install weeping tiles five feet below ground level to drain the land and then turn around and ask us for free irrigation water. They should recover that water somehow instead of leaking into the Boyne River east of the Reservoir.

We are opposed to this project.

Disposition:

These comments address water allocation concerns. No environmental issues are identified that require additional information.

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. The most important use of Stephenfield Lake is as a drinking water supply to approximately nine thousand people. This treatment plant, owned by the Pembina Valley Water Co-operative, provides drinking water to the R.M of Dufferin, R.M of Grey and R.M of Roland. These include the towns of St.Claude, Roseisle, Miami, Carman, Haywood and Sperling. Last year the level of the lake was close to a critical stage for this water supply.
2. Two proposed irrigation fields of the Kroeker Farms project directly border Stephenfield Provincial Park on the east and west. The presence of the park is acknowledged in the proposal; however, it concludes that there will be no impacts on the park. Manitoba Conservation considers that insufficient information is provided on which to base this conclusion.
3. Stephenfield Provincial Park is a regionally significant recreation park that is heavily used. The lake and reservoir provide major recreational activities (swimming, boating, fishing, etc.) for park users. Any additional demands that lower the lake's water levels, especially in dry years, are of concern.

NOTE: Last year, with the hot weather in July, the water levels dropped six to eight feet from the water control structure once the potato farms started to pump for the potato fields. This put the lake at critical levels where boats were touching bottom in the middle of the lake once pumping of existing permits start, visitors are reluctant to swim. The drinking water that comes from the lake for the campground could be jeopardized.

4. There are concerns regarding the implications of additional commitments of water use to the park and local communities in this area, especially in dry years. The province has committed significant funds to upgrade the park's existing recreational infrastructure in recent years and MB Conservation is evaluating additional improvements in the park in the future. MB Conservation requires assurances that these concerns have been explicitly addressed and the park's current and future recreational potential will not be impaired by the allocation of additional water.
5. Since two of the proposed irrigation fields border the park and lie close to many existing campsites, if the project is licensed, MB Conservation also requires information on what mitigation is planned to ensure that the experience of park visitors is not negatively impacted by the project's operation. Such factors as noise associated with irrigation, irrigation spray drift into the park, etc. need to be addressed.

6. The licence, if granted, 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.
7. The licence should make a general provision for surface & ground water monitoring as requested by the “Director”.
8. The proponent should monitor all disturbed sites to make sure that invasive species such as leafy spurge don’t become established.
9. 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.

NOTE: Stephenfield is a Protected Game Bird Refuge consisting of sections 34, 35, and 36 of plan # 19473. Fluctuations of water levels effect migratory bird nest and the existence of this staging area in the fall.

10. 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.
11. The information from the Conservation Data Centre (CDC) database is based on minimal survey effort in the study area and should not be regarded as a final statement on the occurrence of any species of concern nor can it substitute for on-site surveys for species that will be affected by the development. Therefore, it is the responsibility of the proponent to inspect all potentially affected sites prior to and during construction to determine if any listed species may be affected. 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.

Disposition:

Several of these comments were brought to the proponent's attention as design considerations. Most are also addressable through licence conditions. Additional information was requested respecting impacts on Stephenfield Provincial Park and potential mitigation measures. 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 reservoirs is not expected to be a significant issue of concern.

Manitoba Water Stewardship – Planning and Coordination This proposal does address the majority of concerns related to water quality; however, due to the risk of increased runoff following irrigation and/or fertigation, nutrient management should include phosphorus in addition to nitrogen. It is recommended that in addition to nitrogen, phosphorus, if applied, should be applied near spring planting.

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.

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.

Fisheries Branch has reviewed this proposal for water withdrawal from the south side of the Stephenfield Reservoir to a 200 ac-ft off-stream water reservoir during spring (April 1 to May 31) and direct withdrawal from the Stephenfield Reservoir and Boyne River for irrigation between July 1 and September 15th. It would appear they are requesting 670 ac-ft (page 1) per year under this proposal yet under the list on page 8 for the "pending" amounts the total only comes to 420 ac-ft. Furthermore it does not indicate the amounts for each withdrawal location and timeframe.

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.

Disposition:

Water quality and nutrient comments can be addressed through licence conditions. Specific information concerning phosphorus sampling was provided to the proponent for information in complying with licence conditions.

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.

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 (CEAA) 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. Transport Canada requires additional information on the project before it can make a determination on whether the CEAA applies to the project (see attached letter). 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.

Disposition:

Additional information to address any DFO information requirements can be obtained upon request. Information to address Transport Canada's additional information request was requested from the proponent on June 20, 2007.

ADDITIONAL INFORMATION:

Additional information was requested on June 20, 2007 to address the comments of Manitoba Conservation and Transport Canada. 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.

PFRA provided an updated project map in July, 2008, indicating the location of the third reservoir for the project. Upon review of the TAC comments for the project, it was decided to address impacts on Stephenfield Provincial Park through licence conditions.

PUBLIC HEARING:

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

RELATED PROJECTS:

This project encompasses portions of two other projects licences issued to the Agassiz Irrigation Association, the parent organization of Agassiz Resource Management Ltd. The Boyne Phase I project, licenced by Environment Act Licence No. 2113 on September 13, 1995, included two sites – B1, which has not been constructed, and B2, which is part of the present project. As the B2 site will now be covered by the licence for the present project, Environment Act Licence No. 2113 may be rescinded. The Plum Phase 5 and Morris Phase 2 project was licenced by Environment Act Licence No. 2224 on September 30, 1996. This project included numerous sites on the Plum and Morris rivers and their tributaries, including the B5 site of the present project. As this site will now be covered by the licence for the present project, it may be removed from Environment Act Licence No. 2224.

RECOMMENDATION:

All comments received on the Proposal pertaining to environmental issues can be addressed in additional information or through 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 Central Region.

Environment Act Licence No. 2113 should be rescinded, and Site B5 should be removed from Environment Act Licence No. 2224. This can be done by sending Agassiz Resource Management Ltd. a letter of notification.

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