

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Central Manitoba Resource Management
Limited
PROPOSAL NAME: Fingas/Leslie and Upper Rat Creek
Irrigation Projects
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 4448.00

OVERVIEW:

The Proposal was received on June 25, 1999. It was dated June 25, 1999. The advertisement of the proposal was as follows:

“A Proposal has been filed by Central Manitoba Resource Management Ltd. (a holding company formed by the Central Manitoba Irrigators Association) to irrigate land in two areas with water from the Assiniboine River. The Fingas/Leslie project involves the irrigation of 108 hectares of potatoes annually in a three year rotation. This project would be located adjacent to PTH 26 approximately five kilometres east of High Bluff. The project would use up to 113 litres per second of water, for a maximum annual use of 228 cubic decametres. This water would be pumped from the Assiniboine River directly south of the project area and delivered by buried pipeline. The Upper Rat Creek project involves the irrigation of 1290 hectares of potatoes annually in a three year rotation. The southern portion of this project (approximately 40% of the total area) would be adjacent to PR 242 between the Assiniboine River and Rossendale. The northern portion of the project would be adjacent to PR 242 north of Rossendale. The project would use up to 195 litres per second of water, for a maximum annual use of 800 cubic decametres. This water would be pumped from the Assiniboine River adjacent to PR 242 and delivered by buried pipeline extending to point 1.6 km north and 1.6 km west of Rossendale. Water for the northern portion of the project would then be discharged through the Charleton Drain into Upper Rat Creek, where it would be pumped either for direct use or to small intermediate storage reservoirs. Construction of both the Fingas/Leslie and Upper Rat Creek projects is proposed for the summer and fall of 1999.”

The Proposal was advertised in the Portage Herald Leader on Tuesday, July 20, 1999. It was placed in the Main, Centennial, Eco-Network and Portage Plains Regional Library (Portage la Prairie) public registries. It was distributed to TAC members on July 13, 1999. The closing date for comments from members of the public and TAC members was August 13, 1999.

COMMENTS FROM THE PUBLIC:

C. Barrie Brown - Very concerned about the quality of water which will be introduced to wells in the downstream reaches of the creek as spills or heavy rains could bring the

diverted water downstream. The Assiniboine River water is not fit for human consumption. No group can distribute this water without treating and purifying it first, so

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how can CMRM justify it? Well owners along Rat Creek should have been consulted and their consent obtained. The ethics demonstrated so far indicate that the only safeguard for well owners would be written legal agreements. Well owners have been offered no proof that the sand between the creek and the wells will remove all the harmful bacteria or that foolproof testing would be in place to guarantee the health of families. To keep this source of water cheap, the invaders (proponents) will spend any amount of tax dollars in an impossible attempt to prove that they will not be responsible for the damage they will cause by raising the water levels under houses or by forcing residents to haul safe water. Residents have had no communication or contact with the proponents.

Disposition:

The implication of these comments is that poorer quality water from the Assiniboine River would degrade the quality of water in Rat Creek. Water treatment is required prior to human consumption for any surface source, including Rat Creek. With respect to the lack of consultation mentioned in the comments, the proponent organized two well attended open houses during the planning of the project. All necessary monitoring to ensure that impacts remain within anticipated levels may be required as a licence condition.

Whitemud Watershed Conservation District - The District has not granted permission to the proponent to utilize district drains in this project. With respect to erosion, the proposal notes that all land proposed for irrigation is susceptible to wind erosion, and one parcel is susceptible to water erosion. The District is concerned about erosion and requires more information as to mitigation to prevent valuable soil loss. More information would also be appreciated concerning the conservation plan which is discussed in the Best Management Practices manual. The District is also concerned with the erosion of drains and natural waterways caused by diverted irrigation water.

Disposition:

The approval of the District must be obtained by the proponent prior to the use of the District's drainage system for water conveyance purposes. This can be addressed as a licence condition. With respect to soil erosion, details of the proponents' proposed land management practices have been provided in the BMP manual. This manual was not distributed to the public with the Proposal, since it remains in draft form, and is currently under review by TAC members. This information can be provided to the District once it is finalized. Erosion of drains by diverted water is unlikely to be an issue due to the relatively small volumes which would be diverted. Diverted discharges for irrigation would be much smaller than the design capacity of the drainage system, which is based on summer precipitation events. In any event, this matter would be addressed in an

agreement between the proponent and the District for the use of the drainage network.

Fort La Reine Wildlife Association - This organization has spent thousands of dollars and invested hundreds of man hours over the past decade improving pickerel habitat and population in the area of Rat Creek and the Whitemud River. This project would be a severe blow to these efforts. There is no comparison between the water in the Portage Diversion and in Rat Creek. Pickerel have all but disappeared from the area around the diversion mouth on Lake Manitoba. This species simply does not thrive in the

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filthy water of the diversion. The benefits to a few potato producers do not outweigh the benefits to thousands of Manitobans and tourists who use this area for their fishing and recreational activities. If irrigation is needed, the producers should dig retention ponds on their own property to trap spring runoff.

Disposition:

These comments appear to be applicable to the Lower Rat Creek irrigation project, which proposes the diversion of water from the Portage Diversion into Lower Rat Creek. This Proposal was recently received. In any case, the water quality concerns noted involve spring flows in the Portage Diversion, when suspended sediment loads are very high. Diversions of Assiniboine River water during the irrigation season would occur when suspended sediment loads were lower. Pickerel are found in the Assiniboine River.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Environment - South-Central Region - No additional comments. Previous concerns received from area residents relating to impacts on groundwater have been forwarded already.

Disposition:

Public comments regarding the Proposal received prior to the filing of the Proposal were referred to the proponent's consultant so that the concerns could be addressed in the Proposal.

Manitoba Environment - Water Quality Management:

Fingas-Leslie Project: There do not appear to be surface water quality concerns with this project since precipitation runoff during the irrigation season is expected to be negligible and recommendations outlined in the "Sustainable Production Evaluation Interview" (SPEI) sheets are followed. Although the SPEI sheets indicate the groundwater hazard is low, the main concern is with potential for groundwater contamination. The nitrate value in MW1 of 4.96 mg/L may be less than half of the guideline value, but it still indicates some accumulation. Leslie Farms has adequate soil testing since it is done annually.

Fingas Farms only soil samples during the potato year; it should also be done in the following year to ensure there is not too much residual nitrogen from the potato crop. These operators or CMRM should also maintain these soil test records and have them available on request. Table 10 states periodic deep nitrogen testing/reporting and monitoring water quality and level in the monitoring wells as mitigation measures. There are no suggested time frames; water tests from monitoring should be done at least during the potato years and more frequently if there appears to be a contamination problem. Results should be maintained and the Department should receive a copy. Deep nitrate testing should be done during the potato years for the first couple of potato rotations or more frequently if a problem with nitrate contamination starts to become apparent. The necessity to increase or decrease the frequency of sampling can be re-evaluated at a later date.

Upper Rat Creek Project: There are concerns with this project because it is diverting water from one river system into another. Although the upper Rat Creek is intermittent and it was mentioned that most diverted water will likely not pass beyond the dams, this is an estimation and downstream Rat Creek users may still have concerns about degradation of water quality over time. The preferred approach to irrigation reservoir

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storage is offstream cells and not instream structures. Specific comments on statements in the report follow: page 26, last paragraph: Although high phosphorus is not a concern for irrigators, adding Assiniboine River water with potentially higher phosphorus to Rat Creek could cause more frequent and severe algae blooms. The March water sample from Rat Creek indicated relatively high phosphorus and unfortunately there is no summer data. The explanation in the fourth paragraph on page 32 is not necessarily correct - the report states that summer phosphorus values in Rat Creek will likely be higher than spring values since spring values are diluted with higher water volumes. In fact, spring phosphorus values are often higher than summer values in streams because spring runoff is flushing residues from the land into the river systems.

Page 27, third paragraph: Variable concentrations in Assiniboine River water quality exceeding Field Crop Irrigation Criteria B or C may not be a concern for these irrigators, but may be a concern for others on Rat Creek who may use the water for gardening or other horticultural activities. April and July 1998 total aluminum and iron concentrations do exceed Category A and B - Greenhouse Irrigation objectives. Paragraph 29, third paragraph down: Why only suspended solid data collected this past June, especially with no historical data for other variables available? Page 31, fifth paragraph down: Does Almasippi currently have proper backflow protection devices etc. if they fertigate? Page 32, third paragraph: Again, the confidence in this statement is reduced because comparing spring data with summer data can be like comparing apples and oranges in some cases, and these comparisons were compounded by comparing Rat Creek spring data with summer data for surrogate streams. Page 34, first paragraph: Suspended solids from Assiniboine River water are anywhere from 6 - 40 times greater than in Rat Creek. The dams would probably help to settle out some suspended sediment. As indicated in the fourth paragraph, maintenance concerns will be addressed by CMRM Ltd. Since

most sediment would be contributed from another watershed, controlled flushing of this sediment down Rat Creek should not be considered. Table 7, Footnote 3 - The condensed definition in Category C has lost the meaning from the Manitoba Surface Water Quality objective description.

Recommendations from the SPEI sheets should be followed if irrigation is undertaken by the different operations. The sheets indicate that the groundwater hazard is high and there is a concern with potential for groundwater contamination. Based on the sheets, each producer appears to be sampling frequently enough for monitoring and preventing over applications of fertilizer additions. These operators or CMRM should maintain these soil test records and have them available upon request. Table 12 states periodic deep nitrate testing/reporting and monitoring water quality and level as mitigation measures. No time frames are suggested. Water tests should be done at least during potato years and more frequently if there appears to be a contamination problem. Results from well testing should be maintained and Manitoba Environment should receive a copy. Deep nitrate testing should also be done during potato years for the first couple of rotations and or more frequently if problems become apparent. The necessity to increase or decrease some of the sampling can be re-evaluated at a later date.

Disposition:

These comments will be referred to the Proponent's consultants for information in the preparation of future proposals. Comments respecting monitoring frequencies and record keeping can be addressed as licence conditions.

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Manitoba Environment - Terrestrial Quality Management - There is concern regarding the leaching of nitrates and pesticides to the groundwater. There are likely many other irrigation projects which have the same potential. Careful monitoring of water requirements to ensure that over irrigation does not occur and prudent application of fertilizers and pesticides should minimize the risk of groundwater contamination. Section 6 of the draft Best Management Practices Manual provides excellent recommendations and rigorous adherence to the recommendations should result in minimal risk of groundwater contamination.

Disposition:

Monitoring of all aspects of soil and water impacts is addressed in the Proposal and can be required through licence conditions.

Historic Resources Branch - No concerns.

Mines Branch - No concerns.

Community Economic Development - No concerns.

Highway Planning and Design - No objections to these projects. The proponent is expected to meet or exceed certain standards when working adjacent to a provincial road or highway. For example, highway traffic control standards must be met, waterline crossings of PTHs and PRs must be sleeved, and rights-of-way, drainage and disturbed areas must be returned to an acceptable condition. A waterline agreement is required from MHT prior to placing any water supply lines within department rights-of-way. The department's contact in this regard is the regional Technical Services Engineer in Portage la Prairie. Please note that PTH 26 may be upgraded at some point in the future and require additional right-of-way.

Disposition:

These comments will be forwarded to the Proponent's consultant for information.

Medical Officer of Health - Central Region - The proponents have done a lot of research and background work in the design of this project. Health concerns are ensuring the adequate protection of groundwater, and assessing how this project fits in with the overall plan for water management in rural Manitoba.

Disposition:

Groundwater protection is addressed in the Proposal. With respect to an overall water management plan for rural Manitoba, the Water Resources Branch of Manitoba Natural Resources is leading initiatives to develop basin wide plans for water management. The Proponent of this Proposal is one of a large number of stakeholders involved in these initiatives.

Natural Resources:

Fingas-Leslie Project: Few details have been provided on the proposed design for the intake site location. In general, affected streambank areas should be stabilized immediately following construction to minimize erosion and sedimentation. The access ramp should be constructed on rocks suitably sized to withstand Assiniboine River erosion potentials. Construction should not occur between April 1 and June 15. The

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intake screen should be designed using the DFO guidelines to protect 75-100 mm long fish. Construction and maintenance of the pipeline through the riparian zone should disturb as little native habitat as possible.

Upper Rat Creek Project: The Charlton Drain is to be used for increased flow. An assessment should be done to ensure the integrity of the drain will be maintained due to this increased flow. If the proponent intends to place the pipeline from the Assiniboine River on the west side of the road allowance along the E ½ of 29-9-9W it will pass through the Whitemud Watershed WMA. MNR would require an onsite meeting with the proponent prior to construction to determine any impacts to the WMA that may occur. MNR does not support any bush clearing in this one mile stretch of the pipeline. Access or other development activities that impact the WMA require a WMA use permit. For

the pumping sites on the Assiniboine River, Rat and Bagot creeks, it is suggested that construction not occur between April 1 and June 15 in any year and be completed in a manner to minimize erosion and sedimentation in adjacent waterways. Site selection and stabilization should be sufficient to withstand the 1:100 year flood flows on the associated waterway. Pump intakes should be screened in accordance with DFO screening guidelines. It is recommended that the operation of the pumps be restricted to June 15 to September 15 to avoid the fish spawning/migration period for Rat and Bagot creeks. Pumping from the Assiniboine River may occur in May/June as proposed. The instream weirs on the Rat and Bagot creeks should be constructed in a manner so as to minimize fish stranding on the downstream spillways. Instream flow values should be established for the Assiniboine River and Rat and Bagot creeks. Disturbance in the riparian areas intersected by the pipeline and in the areas where the pumps and electrical connections are installed should be kept to a minimum. Disturbance of habitat associated with reservoir construction should also be kept to a minimum.

The use of retaining walls for rockfill riffles is not considered a good idea. Experience has shown that the rocks can pull away from the wall and settle/sink below the top of the wall. Riffles should be constructed in the fall and in a manner to minimize erosion and sedimentation. Rockfill area A should have a minimum depth of 12 inches to prevent eggs from settling into the clay. In spite of the statements in the Proposal that the proponents are committed to adopting Best Management Practices irrigation scheduling, three of the four proponents are using the subjective “feel method” instead of the recommended chequebook method or moisture measuring devices. The proponent’s claim that phosphorus and dissolved solids will be reduced in Rat Creek might be correct following a heavy or sustained rain event. This would also be true of the claim regarding manganese, MCPA and iron.

Disposition:

Where possible, these comments can be addressed as licence conditions. Comments provided for information will be forwarded to the Proponent.

Canadian Environmental Assessment Agency - An environmental assessment under The Canadian Environmental Assessment Act will be conducted by PFRA. Natural Resources Canada and Fisheries and Oceans have offered to provide specialist advice in accordance with Section 12(3) of the Act.

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Fisheries and Oceans:

Upper Rat Creek Project: The project is not likely to cause significant adverse effects on fish and fish habitat after the implementation of appropriate mitigation measures. The following measures, if incorporated into the project, will ensure that potentially adverse effects on fish and fish habitat will be mitigated.

1. No instream activities should take place between April 1 and June 15 of any year. All instream construction should be conducted during low flow periods to minimize the erosion and downstream sedimentation within Rat Creek.
2. Instream weirs should be constructed with v-notches, as per Figure 5 of the Proposal. Weir locations should be monitored following the pumping season to document fish stranding. Should significant stranding occur, modifications should be undertaken to allow downstream fish movement.
3. All streambanks should be stabilized immediately after construction to prevent erosion and sedimentation. The access ramps should be constructed of clean material, large enough to withstand the erosive power of peak flows. The access ramps and pump pads should be inspected annually. When required, maintenance should be performed immediately.
4. Pumping for irrigation is proposed for July and August. Since Northern Pike in this region have grown to 100 mm by this time of year, the intake screening should be designed to protect 100 mm anguilliform fish. Approach velocities should be less than 0.065 m/s. Should pumping occur earlier in the season than proposed, please notify DFO, as fish screen may require modification.
5. Pumping should not occur below any minimum instream flow level once it has been established by Manitoba Natural Resources.

Fingas/Leslie Project: Similar comments.

Disposition:

These comments can be addressed as licence conditions.

PUBLIC HEARING:

No members of the public commenting on the Proposal requested a public hearing. Accordingly, a public hearing is not recommended.

RECOMMENDATION:

All comments received on the Proposal which require action can be addressed as licence conditions. (Other comments will be useful for information in the preparation of future proposals.) 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.

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