

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Aspenheim Colony Farms Ltd.  
**PROPOSAL NAME:** Aspenheim Colony Water Supply Dugout  
**CLASS OF DEVELOPMENT:** Two  
**TYPE OF DEVELOPMENT:** Water Development and Control  
**CLIENT FILE NO.:** 4176.00

### **OVERVIEW:**

The Proposal was received on May 27, 1996. It was dated May 15, 1996. The advertisement of the proposal was as follows:

“A Proposal has been filed by Aspenheim Colony Farms Ltd. for the construction and operation of a water supply dugout adjacent to Image Creek in NE 17-12-9W. The dugout would store 86 cubic decametres of water (70 acre-feet) and would be filled by pumping from Image Creek during the spring runoff period each year. During each filling period, the water requirements of downstream water users and fish habitat requirements would be met. The water would be used for domestic, livestock and non-irrigation agricultural requirements on the colony. The dugout is intended to replace the colony’s present shallow well system in eight years out of ten and reduce the use of the well system in the remaining driest two years out of ten.”

The Proposal was advertised in the Portage la Prairie Herald Leader Press on Tuesday June 11, 1996. It was placed in the Main, Centennial, Eco-Network and Portage Plains Regional Library public registries. It was also distributed to TAC members on May 31, 1996. The closing date for comments from members of the public and TAC members was July 9, 1996.

### **COMMENTS FROM THE PUBLIC:**

No public responses were received.

### **COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

**Manitoba Environment - Water Quality Management** The approach seems reasonable. However, the concern from a water quality perspective is that proper allocation is determined in order to sustain the integrity of the stream, i.e. habitat and associated aquatic life. Table 1 is ambiguous. The totals at the bottom of each column

don't match with what is in the table. An explanation is needed for this discrepancy. It was indicated that pumps will be operated intermittently or at a reduced volume when low flow rates in the stream are below pumping capacity. How will minimum instream flow (MIF) requirements factor in this reduced or intermittent rate? Will reduced or intermittent pumping rates be determined so as to ensure MIF rates are maintained? What will occur when flows will not accommodate MIF and dugout filling? Although the hydrograph in

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Figure 6 indicates that existing uses will be accommodated first, the reality is that all uses may be pumping at the same time, especially when there is a short window for runoff. How will MIF be monitored? 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 spawning occurs. It was mentioned that refueling of tractors operating pumps will be done at least 100 m from the waterway. Will this be a licence condition? There may not be much incentive to move a tractor 100 m for refueling.

**Disposition:**

Maintenance of a minimum instream flow (MIF) is of primary importance in the operation of this and other water storage projects on Beaver Creek and its tributaries. The determination of acceptable MIFs at key monitoring locations is continuing through discussions between the Applicant and Manitoba Natural Resources. A licence condition can require the acceptance of an MIF before the initial filling of the dugout. Filling operations for this and other dugouts will have to be controlled to allow the MIF to pass whenever flow quantities permit. The other comments can also be addressed as licence conditions.

**Historic Resources Branch** No concerns.

**Highway Planning and Design** No specific concerns. 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.

Disposition:

This information will be forwarded to the Proponent.

**Mines Branch** No concerns.

**Community Economic Development** The subject property is designated Agriculture in the Nor-Mac Development Plan and is zoned A80 Agriculture in the North Norfolk Zoning By-law. No concerns.

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**Medical Officer of Health - Portage la Prairie** A health concern with the use of the water for domestic purposes. The Proposal does not outline adequate water treatment facilities if this surface water is used for drinking water. If no treatment is planned, the reservoir water should be designated for agricultural and livestock use only and drinking water should continue to be obtained from the groundwater source.

Disposition:

A licence condition can specify that all provisions of The Public Health Act must be met for water for human consumption.

**Natural Resources** This project is located in the same watershed as the Whitemud Watershed Phase I irrigation project, and was allowed for in the assessment of total water demand. Minimum instream flows must be maintained and consultation with regional fisheries staff should occur prior to the development occurring. Instream flow requirements and water withdrawal monitoring will be addressed in clauses of the Water Rights licences. There may be potential from seepage from these reservoirs. If potential problems are identified in a PFRA study on seepage for the Agassiz projects, this project should be re-examined with respect to seepage. In-channel work should be constructed in a manner which will not cause disruption to existing fish migrations. Pumps should have an appropriate sized mesh to discourage small fish, amphibians and reptiles from being drawn into them.

Disposition:

All of these comments can be addressed as licence conditions. Discussions with Natural Resources Fisheries staff are underway with respect to MIF calculations.

**Canadian Environmental Assessment Agency** Application of the Canadian Environmental Assessment Act with respect to this project will not be required. The Department of Fisheries and Oceans has not yet provided full comments, but has

indicated that the project should be considered with the Whitemud Watershed Phase I irrigation project. PFRA has a CEAA trigger with respect to the project.

**Fisheries and Oceans** (The following comments provided for the Whitemud Watershed Phase I irrigation project apply to this project as well.)

The proponent has not provided an assessment of the combined impact of all proposed reservoirs on downstream flows, and a phased development approach makes it difficult to assess the cumulative impacts of the various dugouts on the streams. The Whitemud Watershed Phase 1 Irrigation Project and the Aspenheim Colony proposal should be considered together in setting minimum instream flows (MIF) at the confluence of the Beaver Creek and Westbourne Drain. It is recognized that these waterways may not support significant fish habitat in the vicinity of the proposed dugouts and instream structures at the present time. However, there are real opportunities for fish habitat restoration and enhancement in Beaver and Rat Creek through the addition of rock riffle areas. Simply providing fish passage over the drop structures near Woodside and Katrime would allow fish access to the upper reaches of Squirrel Creek. The current assessment does not adequately take into account existing and potential fish and fish habitat in Beaver, Rat and Squirrel Creeks. Also, there may be downstream impacts from diverting or impounding runoff that is important for sustaining spawning and nursery habitat for fish in

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the lower reaches of these streams. MIF for the streams were derived using the same method developed previously for Agassiz Irrigation Association dugouts. This method of estimating MIF fails to account for streamflow fluctuations and seasonal variability. The modified Tennant method of comparing the MIF to average spring flow would be preferable, particularly if only those months with reliable flow (March to June) were included.

Withdrawals should always accommodate a MIF, regardless of available pumping capacity. Intakes should be screened in accordance with DFO's 1995 guidelines. Consultation would be needed with DFO and DNR to determine the species and life stages to be protected. Calculated MIFs are based on simulated rather than recorded data. This reduces the accuracy of the calculations. A more thorough analysis of cumulative impacts to fisheries resources should be undertaken, and a monitoring program should be a licence condition.

Disposition:

Several of these concerns were addressed in additional information requested for the Whitemud Watershed Phase 1 project. Other concerns can be addressed as licence conditions.

**PUBLIC HEARING:**

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

**RECOMMENDATION:**

Most comments received on the Proposal can be addressed as licence conditions. The key issue of an appropriate minimum instream flow will be determined through discussions occurring between Natural Resources and the Central Manitoba Irrigators Association. This matter can also be addressed as a licence condition. 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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July 25, 1996

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