

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Rural Municipality of Dauphin  
**PROPOSAL NAME:** Drifting River Ford Crossing  
**CLASS OF DEVELOPMENT:** Two  
**TYPE OF DEVELOPMENT:** Water Development and Control  
**CLIENT FILE NO.:** 4128.00

### **OVERVIEW:**

The Proposal was received on January 23, 1996. It was dated January 23, 1996. The advertisement of the proposal was as follows:

“A Proposal has been filed on behalf of the Rural Municipality of Dauphin for the construction of a ford crossing on the Drifting River east of SW 21-26-20W. The crossing would replace a timber bridge, and would be constructed of reinforced concrete with openings to allow normal flows to pass through the structure. During high flow periods the structure would be overtopped.”

The Proposal was advertised in the Dauphin Herald on Wednesday, February 21, 1996. It was placed in the Main, Centennial, Eco-Network and Dauphin Public Library public registries. It was also distributed to TAC members on February 12, 1996. The closing date for comments from members of the public and TAC members was March 12, 1996.

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

No public responses were received.

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

**Manitoba Environment - Park-West Region** No regional concerns.

**Manitoba Environment - Water Quality Management** A number of items should be addressed. There appears to be an error in the legal description. DNR Fisheries staff should be consulted to ascertain the period when there is spawning concerns and whether there are concerns about the use of culverts. Demolition of the old bridge will require disposal of waste material at a designated waste disposal site. After construction, exposed banks should be re-seeded with natural grasses and herbs.

Disposition:

DNR comments reflect Fisheries Branch concerns. The concerns can be addressed with additional information and licence conditions.

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**Historic Resources Branch** No concerns.

**Mines Branch** No concerns.

**Highway Planning and Design** No concerns.

**Rural Development - Community Economic Development** No planning concerns.

**Medical Officer of Health (Westman)** The lack of detail provided with the Proposal was a problem. The small size of the drawings and their labels made it difficult to understand what was being proposed. The following health concerns were noted: Why is a bridge being replaced with a structure which is obviously less environmentally sensitive? Has repair of the bridge been considered? Disruptions such as driving machinery through the water for parts of the year lead to impacts on water quality and fisheries which are not sustainable in the long term. We are moving closer to full environmental cost accounting when the degradation to surface water will need to be remedied. Cost effectiveness should be reported for such proposals when cost and not the environment protection is the basis for the decision. The safety of the crossing is also a concern when water levels are high and the surface is wet and slippery. Debris accumulates around ford crossings. This creates an unsightly and hazardous situation.

Disposition:

Additional information was requested with respect to the reason for choosing the selected crossing type. Cost and the satisfactory performance of similar structures in the area led to the selection of a raised concrete ford crossing. A ford crossing can be constructed for a fraction of the cost of a replacement bridge. Safety is a concern at ford crossings when they are overtopped by high flows. The crossing in question is not located on a major municipal road, and traffic would be mainly local. Therefore, it is believed that users would be aware of the potential hazard during high water periods. Debris accumulation has been a problem at other sites. This concern can be addressed as a licence condition requiring periodic inspection and debris removal by the Proponent.

**Natural Resources** An installation and construction proposal is critical. This information should be filed prior to final licensing. MNR regional fisheries staff should

be consulted for their concerns and recommendations. The design and installation proposal should accommodate various species of fish from minnows to larger fish, for a complete range of flow regimes. An analysis of flows and velocities would be beneficial. The deck of the crossing could have a U or V shaped profile to concentrate water under some flow conditions to facilitate fish passage. A stream reach and bed profile survey is recommended. This could be used to determine the setting for the culvert invert which would be at or below the bed level and to ensure alignment of culverts with the main stream channel. It should be determined what stream bank alterations will be required to accommodate an appropriate approach. Site destruction should be minimized and appropriate vegetation levels should be maintained in the riparian zone. Information on whether a cofferdam or diversion is needed should be provided. Additional stream bed armouring

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may be required. Manitoba's Stream Crossing Guidelines should be followed and consultation with the fisheries manager should be undertaken relative to rip-rapping needs.

The period of April 1 to June 15 should be avoided for construction. Appropriate maintenance and upgrading may be needed over time; monitoring is recommended as a condition to minimize future potential impacts to fish.

Disposition:

An installation and construction proposal was requested for the project. A project manual was provided by the Proponent's consultant in response to this request. The project manual was reviewed by Environmental Approvals and regional fisheries staff. Licence conditions are included to address remaining information shortages. Additional information was also requested and provided concerning design modifications to concentrate flow under flow conditions when the structure is slightly overtopped. A shallow V was incorporated in the design to address DNR concerns.

**Canadian Environmental Assessment Agency** Application of the Canadian Environmental Assessment Act with respect to this project will not be required. DFO would like to participate in the provincial review.

**Fisheries and Oceans** A more suitable crossing design should be considered. Fish movements are prevalent in the area and a ford crossing could restrict or prevent these movements. There is concern about the possibility of washout at the site. Additional information should be provided regarding the anticipated flow velocities in the proposed culvert under average flow conditions. An average velocity of less than 1.0 m/s has been proposed for culverts less than 25 m in length in the draft Manitoba Stream Crossing Guidelines. An open bottom culvert should be considered, as this could retain the natural stream substrate and not limit fish passage. Water velocities are not significantly changed

if the culvert is as wide as the natural stream. The duration of instream construction and the temporary diversion of streamflow should be minimized. No instream construction should take place between April 15 and June 30. Measures to minimize erosion and sedimentation during and after construction should be identified.

**Disposition:**

The Proponent has selected the crossing design on the basis of cost. Modifications have been made to the design to accommodate fish passage concerns. More substantial modifications such as widening the structure to prevent a stream constriction or eliminating the floors of the cells are not economically feasible.

**PUBLIC HEARING:**

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

**RECOMMENDATION:**

All comments received on the Proposal have been addressed in additional

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information or 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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