

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Town of Minnedosa  
**PROPOSAL NAME:** Minnedosa Lake Silt Removal

**CLASS OF DEVELOPMENT:** Two  
**TYPE OF DEVELOPMENT:** Water Development and Control  
**CLIENT FILE NO.:** 4294.00

### **OVERVIEW:**

The Proposal was received on September 19, 1997. It was dated September 15, 1997. Additional information was requested to support the information provided in the original Proposal. The advertisement of the accepted proposal was as follows:

“A Proposal has been filed by the Town of Minnedosa for the removal of silt from a portion of the north end of Minnedosa Lake. The silt would be removed with a track excavator during the winter of 1999 while the lake was lowered. An area approximately 450 meters long extending across the north end of the lake would be affected. Excavation depths would range from zero to approximately 1.2 metres. Excavated material would be spread and reseeded on nearby agricultural land.”

The Proposal was advertised in the Minnedosa Tribune on Tuesday, January 20, 1998. It was placed in the Main, Centennial, Eco-Network and Western Manitoba (Brandon) public registries. It was distributed to TAC members on January 12, 1998. The closing date for comments from members of the public and TAC members was February 16, 1998.

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

No public responses were received.

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

**Manitoba Environment - Park-West Region** Time limits should be included as to when the removal sediment must be graded and seeded. Fuel storage must be located at least 100m above the high water mark. In the event of a spill of any contaminant, the spill must be reported pursuant to MR 439/87. Provisions for spill recovery must be immediately available during the operation. Twenty four hour notice should be provided to the Brandon office before the start of construction.

Disposition:

These comments can be addressed as licence conditions.

.../2

- 2 -

**Manitoba Environment - Water Quality Management** The major impact to water quality could be significantly increased suspended sediment concentrations in the water column. This could negatively impact fish. Reduction of this type of problem by drawing down the lake and excavating materials in mainly dry conditions appears to alleviate this problem. Drawing down the lake reduces habitat space for resident fish and may put populations under added stress during winter. However, this lake has been drawn down over winter in the past and this project may not affect fish populations any more than previous years. The other main concern is with the land location for the placement of the excavated lake material, especially before it has been stabilized. This requires an adequate setback area from the lake and placement of temporary barriers if necessary. The map in the proposal indicates that the material will be placed immediately adjacent to the lake. Although it is assumed that the material will be frozen during the spring thaw, spring rains or other unforeseen circumstances could create unwanted surprise conditions.

Disposition:

The comment concerning spoil disposal can be addressed as a licence condition.

**Historic Resources Branch** No concerns.

**Mines Branch** No concerns.

**Community Economic Development Branch** No objection.

**Medical Officer of Health (Westman)** The risk of contamination by fuel or chemical spills during construction should be minimized. Appropriate waste disposal as per existing regulations should be ensured. Dust, noise, gaseous and particulate emissions during construction may be a concern.

Disposition:

These comments can be addressed as licence conditions.

**Natural Resources** The area to be dredged should be completely dewatered. Drawdown should take place over late summer in a controlled manner to allow fish the opportunity to adjust to the reduced reservoir level. The sediment deposit site appears to be inadequately sized and located to handle the volume of spoil. Additional information should be provided concerning the volume of spoil anticipated, the area of the deposit site and the thickness of the spoil deposit. Spoil should be prevented from eroding back into the lake. This would be assisted by a vegetated buffer strip and silt fences or barriers. An oxygen monitoring program should be developed and contingency plans should be developed to address winter oxygen depletion.

Disposition:

Additional information will be requested concerning spoil disposal. Other comments can be addressed as licence conditions.

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- 3 -

**Canadian Environmental Assessment Agency** Fisheries and Oceans and Western Economic Diversification have provided notification that an environmental assessment under the Canadian Environmental Assessment Act will be conducted and additional information is being requested. Environment Canada, PFRA and Natural Resources have offered to provide specialist advice, and the Canadian Coast Guard would like to participate in the provincial review.

**Fisheries and Oceans** The proposed project will impact on Minnedosa Lake, which supports a recreational fishery. Of primary concern is the direct impact that dredging will have on fish habitat in the reservoir. The area to be dredged supports significant emergent and submergent aquatic vegetation, which provides important spawning, nursery and/or feeding habitat for northern pike, yellow perch and other species. No mitigation or compensation has been proposed to offset this loss.

The project description is lacking in detail. Further information should be provided with respect to the areal extent of the dredging, both for the preferred option and the alternative options (eg. dredging the rowing lanes only.) A more detailed evaluation of fish habitat conditions would also be useful - extent of aquatic vegetation, other substrates, etc. The proposed disposal site is immediately adjacent to the lake and appears small relative to the anticipated volume of dredged material. Additional information should be provided regarding the area of the site and the depth of fill that would result. Suitable erosion control measures should be proposed to ensure that the sediments are protected from re-entering the lake.

DFO-HM is also concerned about the proposal to lower reservoir levels to accommodate the dredging. Information on the extent of the proposed drawdown has not been provided. A substantial drawdown may be required to allow dredging "in the dry", and this may adversely impact the capacity of the reservoir to overwinter fish. Oxygen reserves in a eutrophic reservoir are typically depleted over the winter months and a

reduced volume of water will exacerbate this effect. No discussion of the potential severity of this impact was provided and no mitigation measures were proposed. Open water or through ice dredging will create substantial disturbance of sediments and will re-suspend nutrients which could impact on water quality for some time after dredging. There is no discussion of potential contaminants in the lake sediments and the impact that their disturbance may have on fish and other aquatic life.

The preferred dredging option will require the removal of over 102,739 m<sup>3</sup> of sediments. Based on the deposition rate in recent years, it is estimated that the removed sediments will be replaced in about 15 years. Therefore, the benefits will be temporary in nature and the requirement for future dredging could result in further impacts.

It appears that the project may result in the harmful alteration, disruption or destruction of fish habitat. This is prohibited unless authorized by DFO, and an authorization cannot be issued until acceptable measures to compensate for the habitat loss are developed. The first preference is to design the works to compensate for the habitat loss. DFO would welcome the opportunity to explore alternative options to the dredging project. Only after such alternatives are explored and the loss of fish habitat is considered unavoidable would DFO require that habitat compensation options be considered.

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- 4 -

**Disposition:**

More information will be required to address these concerns.

**PUBLIC HEARING:**

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

**ADDITIONAL INFORMATION:**

Additional information was requested from the Proponent on March 2, 1998 to address concerns identified in the preliminary screening of the Development. A response was provided, but little additional information was included in the response. In particular, DFO concerns were not adequately addressed. DFO staff met with staff of the Town of Minnedosa and outlined fish habitat concerns. The Town provided a detailed response to the DFO concerns dated May 5, 1998. On the basis of this response, DFO is preparing an Authorization for the project.

With respect to the concerns of several TAC members regarding spoil disposal, the Proponent has undertaken to deposit excavated material in an unused gravel pit some distance from the project site. This has addressed the possibility of excavated material re-entering the lake.

**RECOMMENDATION:**

All comments received on the Proposal have been addressed in the additional 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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March 3, 1998 (updated May 29, 1998)

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