



**UMA Engineering Ltd.**  
Engineers & Planners

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November 27, 1995

1315-177-00-03/1.4

Northwest Territories Water Board  
P.O. Box 11500  
Yellowknife, NWT  
X1A 2R3

Attention: G. Wray, Chairman

Dear Sir,

**RE: GRISE FIORD SEWAGE LAGOON DESIGN REVIEW**

We are responding to your letter of November 10, 1995, to address the recommendations from your review of the detailed design. We appreciate your feedback on the detailed design, and we feel that this dialogue will enhance the overall success of the project.

We have addressed the recommendations in your letter on an item by item basis, as follows:

1. Erosion protection in all ditches.

From a technical perspective erosion protection is necessary where flow velocities, as a result of discharge volume or slope of channel, will provide sufficient energy to displace material of the ditch structure causing flow to jeopardize the integrity of adjacent structures. On this basis, erosion protection has been included in the design of the Grise Fiord Sewage Lagoon in areas where we feel it is necessary.

As part of the operation and maintenance of the facility, any areas of erosion that develop over the years should be noted, assessed, and reported. If these areas are ever deemed a problem to the integrity of the structure or the surrounding environment, remedial measures should be taken.

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