

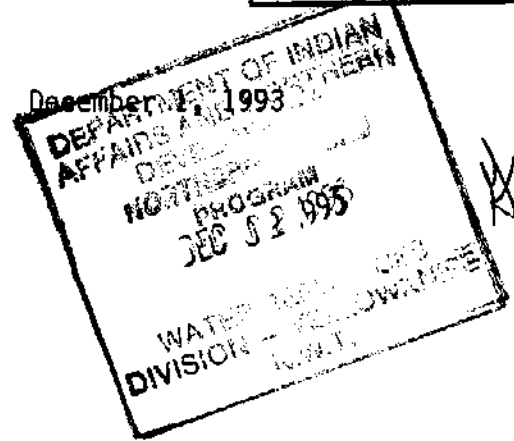
NORTHWEST  
TERRITORIES  
WATER BOARD



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Mr. Eddie Gordillo, P. Eng.  
Facility Planner  
Technical Services Division  
Public Works and Services  
Government Services  
Government of the Northwest Territories  
YELLOWKNIFE, NT X1A 2L9

Dear Mr. Gordillo:

**RE: SEWAGE LAGOON EXPANSION - GRISE FIORD**

Thank you for your letter of October 4, 1993 and the consultant's report regarding the subject matter. The Northwest Territories Water Board has reviewed the report. The review has raised a number of concerns with the proposed design.

The Board notes the consultant's endeavour in conducting an environmental evaluation. It is encouraging to see such efforts being made.

Page seven of the report describes the receiving environment as being open coastline. Page three of Appendix C refers to a "lack of significant water movement in the bay". These statements are contradictory. If there is a lack of significant water movement, then the receiving environment should be classified as a bay or fjord.

The "seepage storage lagoon" concept is of questionable merit. Considering the climate at Grise Fiord it is possible that the berm may never thaw. If this concept is to be pursued, then the Board requests that it be studied further. In any case it is recommended that an outlet control device be installed, such as that described in figure seven of the report.

Further information regarding the land treatment concept is requested. Specifically, please provide:

1. the detention time and water balance in the land/wetland portion;

.../2

2. the treatment efficiency of the land/wetland portion;
3. the expected effluent quality; and
4. any other information which will demonstrate that the land/wetland portion has been engineered to provide the desired level of treatment.

Several other comments and questions were raised. It is requested that the consultant provide:

1. clearer maps, drawings, or photos depicting the lagoon, the exfiltration area, and the adjacent stream;
2. a rationale for changing the berm slope from a ratio of 4:1 to 3:1;
3. a more detailed abandonment and restoration plan for the old sewage lagoon; and
4. an assessment of the effect of snow accumulation on the bagged sewage pit.

If you require further assistance, please contact this office. If your inquiry is of a technical nature, please contact Brian Collins at (403) 920-8219 or John Witteman at (403) 920-8240 of the Water Resources Division.

Sincerely,

A handwritten signature in black ink that reads "Dave Nickerson". The signature is written in a cursive, slightly slanted style.

Dave Nickerson  
Chairman  
N.W.T. Water Board