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Territories Resources, Wildlife and Economic Development

March 13, 1998

Ms. Dionne Filiatrault Technical Advisor Nunavut Water Board PO BOX 119 GJOA HAVEN NT X0E 1J0

NUNAVUT WATER BOARD

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PUBLIC REGISTRY

Dear Ms. Filiatrault:

Pangnirtung Sewage Treatment Facility Planning Study

I have reviewed the planning study for a sewage treatment facility in Pangnirtung and offer the following comments for your consideration.

The decision matrix used to evaluate sewage treatment options for Pangnirtung should consider the protection of the environment. The evaluation recommended that a sewage lagoon be constructed partially on tidal flats near the community gravel source. The location and design has been proposed prior to conducting an analysis of the affect the forces of ice scouring and wave action will have on the north berm of Cell 1. Failure of the north berm would result in the release of raw sewage to the marine environment.

Building a sewage lagoon partially on tidal flats appears to be a short-term solution to the issue of sewage disposal and limited space in Pangnirtung. The capacity of the sewage lagoon has not been designed to account for the expected population increase associated with decentralization of the Nunavut Government. Therefore, the sewage lagoon will most likely have a life span of less than 20 years. Considering that the community has an infinite life, the issue of sewage disposal will be an on going problem for the community. For this reason, it is recommended that the design life for a sewage treatment facility be increased to 40 years when evaluating the technical and financial viability of any sewage treatment system.

The study does not indicate how the proposed sewage lagoon will be abandoned. Once again protection of the environment has not been considered.

The berm on the tidal flats would have to be designed to indefinitely stand up to ice scouring and wave action. This would ensure that after the site has closed, berm failure would not release sewage to the marine environment.

It is recommended that before the Nunavut Water Board approve the proposed sewage lagoon partially located on the tidal flats, a geotechnical engineer evaluate the design for long-term stability and the Hunter and Trappers Organization in the community be consulted for environmental concerns.

If you would like to discuss any of the issues in this letter further, please do not hesitate to contact me at (867) 920-3118.

Sincerely,

Lisa Dyer

Environmental Impact Analyst

c: Mr. Robert Eno Environmental Protection Officer Nunavut Headquarters, RWED