File No.: N6L3-1191

May 4, 1998

Mr. David Tagoona
Mayor
Hamlet of Baker Lake
General Delivery
Baker Lake, NT X0C 0A0

Re: Water Intake Modification - Hamlet of Baker Lake

Dear Mr. Mayor:

The Nunavut Water Board received the Predesign Report entitled "Improvements to Existing Water Intake and Pumphouse, Baker Lake, NT" dated November 28, 1997 submitted by Dillon Consulting Limited. We would like to offer the following comments for your consideration:

i. Prior to carrying out the modification, the Hamlet is required to file a request for amendment to the existing water licence No. N6L3-1191. The required application form (enclosed) accompanied by a $30.00 cheque or money order for the application fee, payable to the *Receiver General for Canada* should be filed with the Board.

ii. Regardless of the system put in place by the Hamlet, the quantity of water shall not exceed 100,000 cubic meters annually and the quality of water should meet the *CCME Canadian Drinking Water Quality Guidelines.*

iii. Concerns have been expressed that the intake is located directly offshore from the community and that during spring runoff, all sorts of debris and possibly contaminants enter the water supply. The report does indicate that the existing pump house location may be changed within the design life of the modifications. Have any potential sites been identified by the community? Was total relocation considered? Were historical concerns with the

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location of the existing pumphouse considered? The existing pumphouse location may be changed within the design life, but consideration should be given on the possibility of relocating the intake further west of existing site. Were other location options considered?

iv. The timing of the installation work is an important factor in reducing environmental impacts; in this regard, we recommend that the installation be done when ice is present. During the winter months, there should be less disruption to aquatic life and consolidation of sediments in the ice and snow.

v. The Department of Fisheries and Oceans has published guidelines on recommended sizes for intake screens. A screened intake with effective openings of 2.5 mm was selected. Was consideration given to DFO's "Freshwater Intake End-of-Pipe Fish Screen Guidelines"? Proper intake screens are essential to alleviate the problems of clogging.

vi. The report does not address reclamation of the existing water intake pipe. We recommend that the project include the removal of the existing intake pipe from the lake bottom and any other supporting metallic structures not required or usable for the new system. The report also discussed a MOT line which is currently out of service? Could this be reclaimed under the scope of this project?

vii. While this project does not propose changes to the existing diesel-electric generation station and fuel tank, this project offers a good opportunity to upgrade the facility to environmentally-accepted standards by installing a spill containment structure around the fuel tank.

viii. Also enclosed for your consideration is a letter from Mr. Bill Rideout of the Keewatin Regional Health Board. The NWB would like to remind the Hamlet that it is required to comply with the applicable sections of the Public Health Act, Consolidation of Public Water Supply Regulations, R.R.N.W.T, 1990, c. P-23. Moreover, the Hamlet is required to meet the particular requirements for biological, physical and chemical characteristics of water outlined in the Public Water Supply Regulations. The NWB recommends that this legislation be given full consideration in the modifications to the existing Water Supply facilities in Baker Lake.

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Should you require clarification please do not hesitate to contact me at (867) 360-6338 or by fax at (867) 360-6369.

Sincerely,

Dionne Filiatrault
Technical Advisor

Enclosure (2)

cc. G. Strong - Dillon Consulting Limited
S. Bohnet - INAC Water Resources Yellowknife
P. Smith - INAC Iqaluit
C. Ogilvie - EC/EPB
B. Rideout - Keewatin Regional Health Board
L. Dyer - GNWT/RWED