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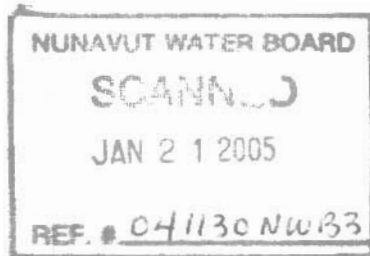
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REF. # 041130NW133

QA Addnl Info Supporting Ltr  
Nov 9 04-1m4e

Mr. Phillippe di Pizzo  
Executive Director  
Nunavut Water Board  
P.O. box 119  
Gjoa Haven, Nunavut  
X0B 1J0



November 30, 2004

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**Re: Additional Information Supporting the City of Iqaluit Letter dated November 9, 2004.**

Dear Mr. di Pizzo:

As requested in the Nunavut Water Board (NWB) letter dated September 27, 2004 the following information is being submitted as backup for the City of Iqaluit's Water License.

## I. General

The City is submitting a revised water license application reflecting the increase of the term of the license from 3 years to 5 years. Sections VIII (Public Health) and IX (Technical Information) have been completed to the best of our abilities with the assistance of an Environmental Health Officer and a Senior Municipal Planning Engineer with the Department of Community and Government Services.

## II. Water

### A. Dam Safety

The City has been unable to locate an Operations and Maintenance Manual for the Lake Geraldine Dam. To the best of our knowledge one does not exist. An O&M manual will be prepared during the design of the raising of the dam currently being completed by Trow Associates.

The City was also unable to locate an Emergency Preparedness Plan for the dam. After discussions with the Deputy Minister of the Government of Nunavut (GN) Department of Community and Government Services on this issue the City understands that should the dam fail the GN's Department of Emergency Services would step in to deal with the situation.



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- 1) The City is submitting as- built drawings from 1962 for the dam in hardcopy form as well as as-built drawings for modifications made to the dam in 1985 and 1995 electronically.
- 2) The City is submitting electronically a summary of dam repairs made since the last dam safety review.

#### b. Water Treatment

The City is submitting electronically as-built drawings for the Water Treatment Plant.

### III. Waste disposal

#### a. Sewage

##### i. Current Lagoon

- 1) The City is submitting electronically laboratory analysis confirming that discharge from the lagoon does not meet applicable effluent quality standards. The laboratory analysis was provided by Scott Stewart, Water Resource Officer with Indian and Northern Affairs Canada.
- 2) A list of repairs made to the sewage lagoon is referenced in the Trow Assoc. geotechnical report on the sewage lagoon dated October 8, 2003, section 2.2. Record drawings for the lagoon reconstruction and drainage improvements completed in 1991 are being submitted in hardcopy form by the City
- 3) Documentation supporting the monitoring of the piezometric freeboard level has been previously submitted to the NWB. It is included with the sewage lift station monitoring documentation.

Detailed geotechnical and hydrological analysis undertaken since the completion of the lagoon safety review have been submitted previously to the NWB and is part of the Trow Assoc. geotechnical report on the sewage lagoon dated October 8, 2003.

An annual inspection report completed by Trow Associates in January of 2003 and a geotechnical investigation of the



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sewage lagoon completed by Trow Associates on October 8, 2003 has been submitted to the NWB.

- 4) Record drawings for the lagoon reconstruction and drainage improvements completed in 1991 by UMA Engineering Ltd. is being submitted by the City in hardcopy form.
- 5) A topographical map for the sewage lagoon is being submitted electronically by the City.
- 6) The City is submitting electronically the Operations and Maintenance Procedures for the sewage lagoon. This was completed by The City of Iqaluit's Superintendent of Public Works, Chris Freda.
- 7) The City is submitting an updated Spill Contingency Plan for the sewage lagoon in hardcopy form.

## ii) Proposed Wastewater Treatment Plant (WWTP)

- 1) The latest implementation schedule for the WWTP is being submitted electronically.
- 2) The City is submitting a copy of the 95% design for the WWTP in hardcopy form.
- 3) Assuming the lagoon is used for emergency storage, for the WWTP bypass, flow will be diverted by closing the knife gate valve at the WWTP and diverted to the pond through a new overflow at the existing dump station. The retention volume of the lagoon is estimated in the Trow Assoc. report of October 8, 2003 titled Geotechnical Investigation Sewage Lagoon to range from between 12,000 cubic meters and 25,000 cubic meters, at operating levels of 0.7m and 1.5 m, respectively.

It is anticipated that, should the existing lagoon be utilized during an emergency overflow, upon restoration of the WWTP the wastewater would be pumped overland, using portable pumps, to the existing dump station, downstream manhole or to the Camlok fitting outside the WWTP.

- 4) The high water mark (HWM) and the WWTP outfall location were obtained from the Trow Associates as-constructed drawing no. MD 13153A-PP2 of the existing WWTP outfall which is being submitted electronically.



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5) Details of energy dissipation areas for the WWTP are given on Trow Associates as-constructed drawing no. MD13153A-PP2 and MD13153-D5 which are being submitted electronically.

6) A memo from Earth Tech dated October 8, 2004 discussing the characterization of the sewage sludge generated at the WWTP is being submitted electronically.

## ii) Utilidor and Sewage Collection system

The City is submitting in hardcopy form an updated Spill Contingency Plan including an updated contact list as well an updated spill response equipment list.

## iii) Solid Waste

### Monitoring

1) The City is submitting electronically information with respect to monitoring (sampling of surface water) which has been performed at the landfill.

## iv) Existing or Abandoned Solid Waste Disposal Facilities

1) The City is in the process of developing an Abandonment and Restoration plan for the North 40 Metals Dump. A copy of the proposed table of contents is being submitted electronically.

The City appreciates the opportunity to respond to the questions and comments raised by the NWB. Please do not hesitate to contact the undersigned if you have any questions, comments or require any clarification.

Best Regards.

Brad L. Sokach, P.Eng.  
Director of Engineering  
City of Iqaluit

Cc. Ian Fremantle, CAO, City of Iqaluit  
Elisapee Sheutiapik, Mayor, City of Iqaluit



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