



January 17, 2012

Vern Christensen, P. Eng., Executive Director
Mackenzie Valley Environmental Impact Review Board
200 Scotia Centre
Box 938, 5102-50th Ave
Yellowknife, NT X1A 2N7

**RE: City of Yellowknife's Potable Water Pipeline Replacement Inclusion
in Scope of Work for Giant Mine Remediation**

Dear Mr. Christensen,

In September 2009, the Government of the Northwest Territories (GNWT) adopted the Guidelines for Canadian Drinking Water as part of their Water Supply Regulations and Public Health Act. The City's main drinking water source is the Yellowknife River. These guidelines require that surface water used as a drinking water source undergo a filtration process. The City's current treatment methods do not include filtration, only chlorination and fluoridation. The adoption of these guidelines as legislation compelled the City of Yellowknife (City) to move forward with the planning and design of a new water treatment plant that will satisfy the requirements in the guidelines.

Part of the planning process was to review all infrastructure associated with the City's potable water system, more notably the submarine pipeline which connects the City's main pump house (Pump House #1) to the pump house at the Yellowknife River (Pump House #2). This pipeline was installed, under a federally funded project, in 1969 to address public concerns of arsenic contamination in the City's previous water source, Yellowknife Bay on Great Slave Lake. The arsenic contamination was believed to stem from the mining processes employed at Giant Mine. The pipeline is close to the end of its useful life and will need to be replaced no later than 2020.

The proposed remediation plan for Giant Mine incorporates the use of Yellowknife Bay as part the treatment process for any and all contaminated water being discharged through the diffuser into Yellowknife Bay as confirmed during the technical sessions. Based on this it is the City's belief that Yellowknife Bay should also be included in the scope of the remediation plan. As such given the public perception that Yellowknife Bay will always be threatened with arsenic



contamination the City also believes that the replacement of existing submarine pipeline should also fall within the scope of the project. . Regardless of what the science says the majority of Yellowknife residents believe Yellowknife Bay will continue to be contaminated with arsenic due to historical operations and any proposed remediation processes. This is the reality of the situation. Maintaining the existing supply system and source in terms of drawing water from the Yellowknife River will alleviate and address the concerns of our residents. Therefore the submarine pipeline replacement should be a vital component of the Giant Mine Remediation Project. The capital replacement cost of the 8.0 km pipeline is valued at approximately \$10 million dollars. Without financial assistance from other orders of government these replacement costs will be solely on the City to absorb. The City feels that these costs are undeserved and will place excessive financial burden on the tax base of Yellowknife.

Currently we are in the detailed design phase of the water treatment plant and associated pump house upgrades. The projected schedule is to begin construction of the main structure in the summer of 2012, with commissioning to occur sometime in 2013. At this time direction has been given to the design team to maintain the Yellowknife River as the potable water source. In addition to the pipeline replacement, there will have to be many upgrades to the various pumps that are required to transport water from the river to the new water treatment plant. These upgrades are being incorporated into the final design.

In closing the City is asking the MVEIRB to include the replacement of the submarine pipeline in the overall scope of the remediation plan for Giant Mine and believes the information provided in this letter justifies granting such a request. Should you require additional information or wish to discuss this matter in greater detail please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dennis Kefalas".

Dennis Kefalas, P. Eng.
Director, Public Works & Engineering

cc: Honorable Mayor, Gordon Van Tighem, City of Yellowknife
Robert Long, City Administrator, City of Yellowknife