

Justin Hack

## Water Resource Officer

INAC

Iqaluit, NU

By email

May 27, 2016

**RE: Igloodik Reservoir Expansion Request**

Dear Mr. Hack:

Health protection is founded on ensuring that Nunavummiut have access to sufficient drinking water. The Chief Medical Officer of Health for the Territory of Nunavut is responsible to protect the health of Nunavummiut. Under the *Public Health Act* and *Public Drinking Water Regulations* : Section 6 - *No surface water source shall be approved for use in a public water supply unless (a) the quantity of the water sufficient to permit reasonable quality control of the water having regard to the estimated demand that the source is required to fill, Section 7(1) The quantity of water in a surface water source shall be adequate to supply the water demand, including the fire demand, of the community using the surface water source including a reasonable surplus for anticipated growth. Section 8 – Where a surface water source is approved for use in a public water supply nothing which may adversely affect the quality of the raw water may be done on the watershed without approval by the Chief Medical Health Officer.*

The Hamlet of Igloolik had a shortage of over-winter water storage and the reservoir ran dry in June of 2015. At that time the source water at South Lake was still under ice-cover and was of unacceptable quality for domestic use. As a result, Emergency Services was called upon to take emergency response to ensure the Hamlet was not without water for an extended period of time. An emergency system was set up to transfer more water to the reservoir from an alternate water source (Fish Lake) that is located about 14 km from town.

Community and Government Services (CGS) subsequently conducted an analysis on the capacity of the reservoir and the risk of future shortages of over-winter water storage. This analysis assumed a population of 2039, and used the actual community consumption rate of 75.2 lpcd and no storage requirement for fire suppression or dust control. The analysis concluded that the Hamlet of Igloolik may be at risk of water shortage prior to the 2016 recharge.

Science-based evidence has shown that water availability of less than 90 lpcd negatively impacts health. In order to maintain proper health people must be able to have ample drinking water, do laundry, have an ample supply of water to clean and sanitize dishes and perform household cleaning. Given inherent uncertainty in any modelling procedure, Department of Health considers the undersized water reservoir



is an imminent threat to public health and safety. Due to the risk of a drinking water shortage in 2016, Department of Health recommends that an expansion of the reservoir be undertaken immediately to prevent this threat.

The Department of Health understands the Community and Government Services is in a state-of-readiness to expand the Igloolik reservoir. Community and Government Services has indicated that an amendment to the # 3BM-IGL1520-Type B licence for the expansion of the water reservoir has been submitted to NPC. However, the timelines for approval of the amendment exceed the timelines that would allow for an expansion during the 2016 construction season. Therefore the expansion project is at risk of being delayed until 2017, leaving the Hamlet in a situation of another potential water shortage.

The inaccessibility to sufficient drinking water both in quantity and quality is significant in its implications in public health both from a communicable disease control perspective but also from a basic human rights perspective. The Department of Health is seeking INAC to exercise their regulatory authority to direct CGS to expand the reservoir such that the Hamlet of Igloolik will have sufficient water to meet their needs in the immediate future.

**Dr. Kim Barker, MD, CCFP, MPH, FRCP(C)**

**Chief Medical Officer of Health**  
Department of Health  
Government of Nunavut

**Médecin-hygiéniste en chef**  
Ministère de la Santé  
Gouvernement du Nunavut

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