File No.: **3BM-IGL1520** 

June 14, 2018

Bhabesh Roy, M.A.Sc., P.Eng. Municipal Engineer Community and Government Services Baffin Region, Government of Nunavut P.O. Box 379, Pond Inlet, NU X0A 0S0

Email: broy@gov.nu.ca

RE: NWB Technical Review of 2017 Annual Report for the Hamlet of Igloolik; Water Licence No. 3BM-IGL1520

Dear Mr. Roy:

The Nunavut Water Board (NWB) has completed a technical review of the 2017 Annual Report.

On May 9, 2018, the NWB acknowledged receipt of the Annual Report and provided it to the Qikiqtani distribution list for information. No comments have been received to date.

The technical review of the Annual Report found that additional information is necessary to meet the following requirements of the Licence:

• Part H, Item 1 (in Amendment No. 2):

The Licensee shall maintain Monitoring Program Stations at the following locations:

Monitoring Station ID	Description	Status
IGL-1	Raw Water Supply Intake at South Lake	Active (Volume)
IGL-1a (New)	Raw Water Supply Intake at Fish Lake	Active (Volume)
IGL-2	Runoff from the Modified Solid Waste Disposal Facility	Active (Water Quality)
IGL-3	Raw Sewage at Discharge point into the Modified Sewage Disposal Facility	Not Active

IGL-4	Final control point from the Modified	Active
	Sewage Disposal Facility or upon	(Water Quality)
	commissioning, the Upgraded Sewage	
	Disposal Facility	
IGL-5	Final Effluent Discharge Point prior entering	Active
	Foxe Basin	(Water Quality)

The Annual Report did not provide information specifically linked to any of these Monitoring Program Stations. The Annual Report did provide monthly volumes from On Tap Water Delivery System in litres. That information is not required in the Annual Report. The Annual Report also included analytical data for a station titled "Sewage Lagoon Cell #" without explanation of if that was to represent the 'old' IGL-4, the 'new' IGL-4, or IGL-5. A short discussion of the annual volumes in Litres was provided for South Lake was provided and this might be representative of Monitoring Program Station IGL-1.

## • Part H, Item 2 (in Amendment No. 2):

The Licensee shall measure and record, in cubic metres, the monthly and annual quantities of water pumped at Monitoring Program Stations IGL-1, and IGL-1a for all purposes under the Existing Licence associated Amendments.

The Annual Report did not provide monthly quantities of water pumped at IGL-1 or IGL-1a. A short discussion of the annual volumes in Litres was provided for South Lake was provided and this might be representative of Monitoring Program Station IGL-1, however that discussion did not reference the station, was not in cubic meters, and was not monthly.

## • Part H, Item 3 (in the original version of the Licence):

The Licensee shall sample at Monitoring Program Stations IGL-4 and IGL-5, monthly during periods of observed flow.

The Annual Report did not provide monthly analytical data at IGL-4 or IGL-5. No explanation for what was or was not sampled was provided. The Annual Report did provide analytical data for one sample collected in April from a station titled "Sewage Lagoon Cell #" without explanation of if that was to represent the 'old' IGL-4, the 'new' IGL-4, or IGL-5.

Please provide this information in the 2018 Annual Report and all future reports. If for some reason data or information is not available, include a discussion indicating:

- What information is missing;
- Why it was not provided; and
- Steps being made to provide it in the future.

The NWB notes that the Licensee is required to submit a number of plans and reports once

construction and commissioning is complete as per Amendment No 1 and Amendment No 2.

The NWB strongly recommends that the Licensee address issues identified in 2017 by the Inspector.<sup>1</sup> Please provide a brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector or other parties in the 2018 Annual Report.

• The NWB notes that the Annual Report and the Inspection both identify water withdrawals in exceedance of the Licence limits under Part C, Item 2:

The annual quantity of water used for all purposes shall not exceed 81,208 cubic metres annually or a daily quantity of water for all purposes shall not exceed 299 cubic metres

- o The Annual Report indicates that the Hamlet withdrew 136,880 cubic metres of water in 2017.
- o The total water use, even if it was withdrawn evenly through the year, results in a withdrawal rate of 375 cubic metres per day.
- o The inspection indicates that the lake was filled (126,440 cubic meters of water) in 42 days which indicates a withdrawal rate for filling the lake in excess of 3,000 cubic metres per day.
- O The Annual Report also states that while the lake was being expanded, truck withdrawal of 10,440 cubic metres occurred over 30 days which indicates a withdrawal rate of 350 cubic meters per day. The NWB notes that the 10,400 cubic metres is an estimate and does not align with the reported volumes from On Tap Water Delivery System.
- The NWB acknowledges INAC's comment 4:

...With this information it appears the licensee has pumped more than 300 cubic metres per day and is storing more than 60,000 cubic metres of water. With the information provided to the inspector, INAC has determined that the licensee requires a type A water Licence

While the Licensee must comply with the terms of their existing Type "B" Licence, the NWB also wishes to emphasize to the Licensee that the current Licence is a special case of a "grandfathered" Type "B" Licence that, after the implementation of an updated definition for "municipal undertakings" under the *Nunavut Waters Regulations*, introducing water use thresholds for municipal undertakings, the Licensee's water use volumes now fall within typical limits for a Type "A" Licence. This issue was addressed within the decision for Amendment No 2 and the Hamlet was put on notice that when the Hamlet applies to renew the existing Licence the Hamlet will be required to transition to a new Type "A" Licence:

It should be noted that in the decision section of the Existing

3

<sup>&</sup>lt;sup>1</sup> Indigenous and Northern Affairs Canada (INAC) Inspection Report, October 5, 2017.

Licence, which was issued on March 31, 2015, it was mentioned that Schedule 2 of the Nunavut Waters Regulations (the "Regulations"), which came into effect on April 18, 2013, states that a Type "A" water licence is required for activities involving the storage of more than 60,000 cubic metres of water and/or the used of at least 300 cubic metres of water per day. It should be noted that the Board did not apply this requirement at the time the Existing Licence was issued due to a number of factors including the nature of the storage facility involved (the Regulations are based on storage utilizing dams or dikes - Column 2, Item 3 of Schedule 2) and the fact that the Hamlet's direct water usage from the source or its reservoir did not exceed the threshold outlined in Schedule 2 of the Regulations. The Licensee is advised, however, that if there is any proposed increase in direct source water use related to the Existing Licence in future, the associated renewal or amendment application for this potential increase in use may potentially be treated as a Type "A" application and processed in accordance with the relevant thresholds established in the Regulations.

Reflecting this transition, the NWB reminds the Hamlet that there are a number of additional steps associated with the Board's processing of a Type "A" Licence Application (e.g. a Public Hearing and requirements for the Minister to review and approve issuance of a Type "A" Licence, etc.) that are not required for most Type "B" Licences. Consequently, the Hamlet is advised to submit the Application for the new Type "A" Water Licence at least one year prior to the expiry of the Type "B" Licence. As the current Licence is set to expire on March 30, 2020, the NWB looks forward to the receipt of the Application for a Type "A" Water Licence required to replace the Type "B" Water Licence 3BM-IGL1520 on or before March 20, 2019.

Should you have any questions regarding the Board's review of the Annual Report or other matters discussed in this letter, please feel free to contact me, Dave Baines, at (867) 360-6338 (extension 29), at your earliest convenience.

Sincerely,
Dave Baines Nunavut Water Board,
Technical Advisor

Cc: Distribution List – Qikiqtani