

Department of Community and Government Services
Nunalingni Kavamatkunnilu Pivikhaqautikkut
Ministère des Services Communautaires et gouvernementaux

March 20, 2017

Karen Kharatyan Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0

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Attention: Sean Joseph, Technical Advisor

Re: Application for the Renewal of the Water Licence # 3BM-PAN 1417, TYPE-B of the Municipality of Pangnitung to TYPE A.

Dear Mr. Kharatyan,

I am writing you to confirm that the existing Water Licence #3MB-PAN1417 is Type B and will be expired on September 15, 2017. This licence covers three facilities: Water supply, Wastewater Treatment and Waste management. Both water and wastewater treatment facilities have been optimized. Waste management is currently in the Capital planning phase.

Duval river is the source of drinking water. The river water flows during summer only. Therefore during summer, water is pumped from Duval river to the manmade water Reservoir which has a capacity 120,000 cubic meters. Assuming a worst case scenario, during 10 month winter season and considering 1.8m ice thickness on top, the reservoir would still have a capacity of 71,000 cubic meters. Currently the annual water consumption volume of the Community is close to 50,000 cubic meters.

Using a Gorman and Rupp diesel driving pump with 200mm intake line for a capacity of 75 litres/second as per design, total time to fill the Reservoir of the capacity of 120,000cubic meters takes 444.45 hours or 56 days at 8hrs of daily operation. Whereas using 300 cubic meters/per day operation, it will take 400days.lt means the actual filling rate is higher than 300cubic meters per day. At the same time, the annual storage is more than 60,000 cubic meters. Therefore, according to the new Nunavut Waters Regulations issued on April 18, 2014, the existing Water licence is recommended to be renewed as Type A.



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The following documents are attached for the consideration:

- 1. Project Proposal in English and Inuktitut
- 2. Water Licence application to NWB
- 3. O&M manual of the existing WWTP
- 4. O&M Manual of the new WTP
- 5. O&M Manual of the existing Waste Management Facility
- 6. Spill Contingency Plan
- 7. WWTP bypass Contingency Plan
- 8. O&M Manual of Fish Process Plant waste management Plan
- 9. Annual Report 2016

In these circumstances, I am requesting to renew the Water Licence of the Municipality of Pangnirtung as requested.

I will appreciate if you keep me in the loop of the approval process.

Thanking You.

## Bhabesh Roy, M.A.Sc., P.Eng.

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