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

Kugaaruk Water Licence: 3BM-PEL 1419

August 27, 2019

Assol Kubeisinova
Technical Advisor,
Nunavut Water Board,
P O Box 119, Gjoa Haven, NU X0B 1J0

RE: **Respond to DFO letter dated June 11, 2019**
Comments for 3BM-PEL 1419 – Type "B" Water Licence, Kugaaruk

Dear Assol,

We are pleased to respond to your email to provide information to the letter from DFO dated June 11, 2019. Please find the following explanation of information requested by DFO:

Item # 1 Aquatic Species at risk

Comments: *DFO has requested to confirm that there is no aquatic species at risk at or near the site*

Explanation:

Water returns to waterbody after a secondary treatment or polishing through wetland in presence of sunlight, oxygen, and vegetation. Sewage water stays inside the lagoon mostly frozen during winter and enjoys the natural primary treatment. Decanting only carried to melted sewage effluent when spring and summer freshet, and samples are taken for contamination parameters test. Test results ensured parameters values with maximum allowable limits (MAC) set out in the compliance list. All test results are available to the Nunavut water Board under the Annual Reports.

Item # 2 Water withdrawal from ice-covered waterbodies

Comments: *DFO wants to know the water withdrawal from river or ponds not less than 1.5 m depth below the assumed 2.0m of ice cover due to low dissolved oxygen.*

Explanation:

Water drawn from Kugajuk River, not from any pond or lake, and the river has sufficient flow for watershed. Intake screen has installed to a depth more than 2.5 m from River water surface and

a clearance of minimum 2.0 m from the river bed. Therefore, there is no scarcity to water intake or water volume in the river that can impact quantity or quality to supply water.

Since the water generation is continuous in river, the 10% of available volume withdrawal limits for a single ice cover waterbody is not applicable in this regards.

We note that the sewage effluent water test results shown compliance to contamination parameters and no acutely toxic substances in effluent to cause a risk or threat fish or aquatic inhabitants like Rainbow Trout, crustacean, *Daphnia magna* or *Oncorhynchus mykiss*.

Best Regards,

Shah Alam, P. Eng.
Municipal Planning Engineer,
Community and Government Services
Kitikmeot Region, Cambridge Bay, Nu
Phone: 867-983-4156, fax: 867-983-4124, salam@gov.nu.ca