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March 2, 2015

Phyllis Beaulieu
Manager of Licencing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU
X0B 1J0

**RE: Confirmation of Submissions and Scope for Type "A" Water Licence 3AM-IQA0611
Renewal Amendment Application**

Dear Ms. Beaulieu:

The Nunavut Water Board (NWB) has requested the City of Iqaluit (City) to prepare a letter that outlines the current scope for the Type "A" Water Licence 3AM-IQA0611 Application for Renewal and Amendment as well as confirm the submissions provided for the Application. Since the 2012 original submission, new information has been sent to the NWB, as well as the scope of the application has changed slightly to address several proposed activities including recently completed projects that should be included in the application. This letter outlines the current scope associated with the application in addition to information on the original submission and additional submissions provided since 2012. The total scope of the renewal and amendment application includes the original scope, the additions to the original scope and the new requests to the original scope. Please see below for the breakdown of the application scope.

Original Scope

1. Upgrade, operation and the eventual decommissioning of the Water Treatment Plant and other associated systems that supply water extracted from Lake Geraldine for municipal use;
 - a. Proposed maximum annul withdrawal of 1,100,000 m³;
2. Upgrade, operation and the eventual decommissioning of the infrastructure for managing wastewater at the existing West 40 Wastewater Treatment Plant and backup Sewage Lagoon;
3. Operation and the eventual decommissioning of the solid waste management facility at the existing West 40 Landfill and associated infrastructure; and
4. All associated appendices required to support the application. Please see Appendix A for a list of documents that were submitted with the original application.

Additions to the Original Scope

5. Construction, operation and the eventual decommissioning of a new solid waste management facility approximately 7.5 kilometers northwest of Iqaluit City Center.

New Requests to the Original Scope

6. The City is requesting that the length of term of the licence be twenty-five (25) years;
7. The City would like to include an additional location for water extraction to supplement Lake Geraldine. Please see Appendix B for the Supplementary Water Supply Plan that provides the supporting information and identifies the location for extraction on Apex River.
8. The City would like to change its requirements for the Monitoring Program. The rationale for the changes can be found in the letter submitted to the City from Aboriginal Affairs and Northern Development Canada on December 5, 2014 (see Appendix C). The City is requesting that the testing requirements for Stations IQA-01, IQA-03, IQA-05, IQA-07 and IQA-09 be removed from the Water Licence based on the following reasons:
 - a. IQA-01 - Raw Water Supply - Water quality is already sampled and monitored by the City of Iqaluit and the Government of Nunavut, Environmental Health, in relation to safe drinking water standards set out in the Public Water Supply Regulations
 - b. IQA-03 - Influent Sewage Lagoon - The location of the influent pipe is inaccessible and therefore impossible to take a sample. Also, it is understood that the influent to the sewage lagoon is deleterious to the environment and the only data that should require reporting is the discharge effluent.
 - c. IQA -05 - Influent Wastewater Treatment Plant - The City will continue to complete tests on the influent to collect data to aid in the upgrade of the Wastewater Treatment Plant. It is understood that the influent to the Wastewater Treatment Plant is deleterious to the environment and the only data that should require reporting is the discharge effluent.
 - d. IQA -07 - Surface Water Entering West 40 Landfill - The West 40 Landfill is surrounded by a perimeter berm to contain all run-off that is generated on site, other than precipitation no surface water can enter the West 40 Landfill.
 - e. IQA-09 - Contaminated Soils Accepted at West 40 Landfill - Contaminated soils are not accepted at the West 40 Landfill.

The City is also requesting the tests for Chlorinated Paraffins (Wastewater Treatment Plant Influent and Effluent) and LC50 Bioassay (Wastewater Treatment Plant Influent) be removed from the Water Monitoring Requirements. Chlorinated Paraffins are mainly found in heavily industrialized areas and the probability of receiving tests that show Chlorinated Paraffins above the accepted limit is assumed to be low. It is understood that wastewater entering the WWTP is considered toxic and completing an LC50 Bioassay test on the influent provides no useful data for regulating effluent.

Tables 1-5 show the changes that the City is requesting to the remaining Monitoring Program Stations.

Table 1: Station IQA-04 - Wastewater Treatment Plant Effluent

Parameters	Current Testing Frequency	Proposed Testing Frequency to 2018	Proposed Testing Frequency after 2018
BOD	Bi-Monthly	Quarterly	Quarterly
Total Coliforms	Bi-Monthly	Quarterly	Quarterly
Fecal Coliforms	Bi-Monthly	Quarterly	Quarterly
Ammonia Nitrogen	Bi-Monthly	Quarterly	Quarterly
Nitrate Nitrogen	Bi-Monthly	Quarterly	Quarterly
Nitrite Nitrogen	Bi-Monthly	Quarterly	Quarterly
Total Phosphorus	Bi-Monthly	Quarterly	Quarterly
Orthophosphate	Bi-Monthly	Quarterly	Quarterly
Conductivity	Bi-Monthly	Quarterly	Quarterly
TSS	Bi-Monthly	Quarterly	Quarterly
pH	Bi-Monthly	Quarterly	Quarterly
Full Metals Scan	Quarterly	Quarterly	Quarterly
Chlorinated Paraffins	Annually	NA	NA
LC50 Bioassay (R Trout)	Annually	NA	Annually

* The City's current Wastewater Treatment Plant is a primary treatment facility only and it is known that it would fail an LC50 Bioassay test. Once the Wastewater Treatment Plant is upgraded to secondary treatment (required by December 2018), the City will complete an LC50 Bioassay test annually.

Table 2: Station IQA-06 - Wastewater Treatment Plant Sludge

Parameters	Current Testing Frequency	Proposed Testing Frequency to 2018	Proposed Testing Frequency after 2018
Temperature	Summer Months	Quarterly	Quarterly
Conductivity	Summer Months	Quarterly	Quarterly
pH	Summer Months	Quarterly	Quarterly
TSS	Summer Months	Quarterly	Quarterly
BOD	Summer Months	Quarterly	Quarterly
Total Coliform	Summer Months	Quarterly	Quarterly
Fecal Coliform	Summer Months	Quarterly	Quarterly
Ammonia	Summer Months	Quarterly	Quarterly
Nitrate	Summer Months	Quarterly	Quarterly
Nitrite	Summer Months	Quarterly	Quarterly
Total Phosphorus	Summer Months	Quarterly	Quarterly
Orthophosphate	Summer Months	Quarterly	Quarterly
ICP Metals Scan	Summer Months	Quarterly	Quarterly

Table 3: Station IQA-02 - Sewage Lagoon Effluent

Parameters	Current Testing Frequency	Proposed Testing Frequency to 2018	Proposed Testing Frequency after 2018
BOD	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Total Coliforms	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Fecal Coliforms	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Ammonia Nitrogen	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Nitrate Nitrogen	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Nitrite Nitrogen	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Total Phosphorus	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Orthophosphate	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Conductivity	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
TSS	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
pH	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Full Metals Scan	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)

Table 4: West 40 Landfill Run-off Detention Pond (On-Site)

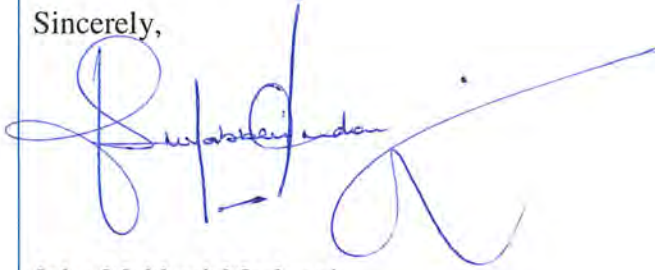
Parameters	Current Testing Frequency	Proposed Testing Frequency to 2018	Proposed Testing Frequency after 2018
pH	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Turbidity	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
TSS	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
BOD5	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
COD	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
TOC	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)

Table 5: Station IQA-08 - West 40 Landfill Run-off Retention Pond (Off-Site)

Parameters	Current Testing Frequency	Proposed Testing Frequency to 2018	Proposed Testing Frequency after 2018
pH	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Turbidity	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
TSS	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
BOD5	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
COD	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
TOC	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Ammonia Nitrogen	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
TKN	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Total Phosphorous	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Full Metal Scan +Hg	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Total Coliform	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
Fecal Coliform	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
BTEX	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)
PCBs	Intermittently (Decants)	Intermittently (Decants)	Intermittently (Decants)

If you have any questions, please contact Paul Clow at 867-979-6363 ext 233 or p.clow@city.iqaluit.nu.ca.

Sincerely,

A handwritten signature in blue ink, appearing to read "John Mabberi-Mudonyi", with a long horizontal flourish extending to the right.

John Mabberi-Mudonyi
Acting Chief Administrative Officer
City of Iqaluit