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October 28, 2020

File: **G03L3-001**

Bill Buckle  
SAO  
Hamlet of Fort McPherson  
P.O. Box 57  
Fort McPherson, NT X0E 0J0

Sent via email

Mr. Buckle,

**RE: Renewal of Fort McPherson Type "B" Municipal Water Licence G03L3-001**

Please find attached Water Licence G03L3-001, granted to the Hamlet OF Fort McPherson by the Gwich'in Land and Water Board (GLWB) in accordance with the *Waters Act* and *Mackenzie Valley Resource Management Act*. The Board has, on its own initiative, renewed this Licence pursuant to subparagraph 36(1)(a)(ii) of the *Waters Act* for a period of one year, ending on September 1, 2021.

A copy of this Water Licence has been filed in the Public Registry at the office of the GLWB, and is also available [online](#). Please be advised that this letter, with attached procedures, all Inspection Reports, and correspondence related thereto, are part of the Public Registry, and are intended to keep all interested parties informed of the manner in which the Water Licence requirements are being met.

The full cooperation of the Community is anticipated and appreciated. If you have any questions or concerns, please contact AlecSandra Macdonald at (867) 777-4954.

Sincerely,

Elizabeth Wright,  
GLWB Chair

Copied to: GLWB Distribution List



## GWICH'IN LAND AND WATER BOARD

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### WATER LICENCE - Renewal

Pursuant to the *Mackenzie Valley Resource Management Act* and the *Northwest Territories Waters Act*, the Gwich'in Land and Water Board, hereinafter referred to as the Board, hereby grants to:

**Hamlet of Fort McPherson**

(Licensee)

of P.O. Box 57 Fort McPherson, NT X0E 0J0  
(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the *Northwest Territories Waters Act* and Regulations made thereunder and subject to and in accordance with the conditions specified in this Licence.

Licence Number:	<u><b>G03L3-001</b></u>
Licence Type:	<u>"B"</u>
Water Management Area:	<u>Northwest Territories 3</u>
Location:	<u>Fort McPherson, Northwest Territories</u>
Purpose:	<u>Municipal Water Use and Deposit of Waste</u>
Description:	<u>Municipal Undertaking</u>
Quantity of water <u>not to be exceeded</u> :	<u>60,000 Cubic Meters Per Year</u>
Effective Date of Licence:	<u>September 2, 2020</u>
Expiry Date of Licence:	<u>September 1, 2021</u>

This Licence issued and recorded at Inuvik includes and is subject to the annexed conditions.

Signed the 28<sup>th</sup> day of October, 2020 on behalf of the Gwich'in Land and Water Board

Witness – Leonard DeBastien

Chair – Elizabeth Wright

## **PART A: SCOPE AND DEFINITIONS**

### **1. Scope**

- a) This Licence entitles the Hamlet of Fort McPherson to use water and dispose of waste for municipal undertakings at Fort McPherson, latitude 67°27' N and longitude 134°53' W, Northwest Territories.
- b) This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Northwest Territories Waters Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.
- c) Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

### **2. Definitions**

In this Licence: **G03L3-001**

“**Act**” means the *Northwest Territories Waters Act*,

“**Analyst**” means an Analyst designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*,

“**Average Concentration**” for **Biochemical Oxygen Demand & Suspended Solids** means the arithmetic mean of four consecutive analytical results, or if less than four analytical results collected during a batch decant, the arithmetic mean of the analytical results collected, and as submitted to the Board in accordance with the sampling and analysis requirements specified in the “Surveillance Network Program”;

“**Average Concentration**” for **Faecal Coliforms** means the geometric mean of any four consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the “Surveillance Network Program”;

“**Bagged Toilet Waste Disposal Facilities**” comprises the area and associated structures designed to contain bagged toilet wastes (honey bags) as depicted in Figure 11 of the “Fort McPherson Water License Background Report”, December 13, 2013, Stantec.

“**Board**” means the Gwich'in Land and Water Board established under Part 3 of the *Mackenzie Valley Resource Management Act*,

“**Commercial Waste Water**” means water and associated waste generated by the operation of a commercial enterprise, but does not include toilet water or greywater;

“**Freeboard**” means the vertical distance between water line and the lowest elevation of the effective water containment crest on a dam or dyke's upstream slope;

“**Geotechnical Engineer**” means a civil or geotechnical engineer familiar with and

experienced in geotechnical practices in arctic conditions, registered or licensed to practice in the Northwest Territories.

“**Greywater**” means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

“**Inspector**” means an Inspector designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

“**Licensee**” means the holder of this Licence:

“**Minister**” means the Minister of Indian Affairs and Northern Development;

“**Modification**” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion.

“**Pumpout Sewage**” means all toilet wastes and/or greywater collected by means of a vacuum truck for disposal at an approved facility;

“**Regulations**” means Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*;

“**Sewage**” means all toilet wastes and greywater;

“**Sewage Disposal Facilities**” comprises the area and engineered structures designed to contain sewage as described in Section 4.2 of the “Fort McPherson Water License Background Report”, December 16, 2013, Stantec.

“**Solid Waste Disposal Facilities**” comprises the area and associated structures designed to contain solid wastes as described in Section 4.3 of the “Fort McPherson Water License Background Report”, December 13, 2013 Stantec.

“**Toilet Wastes**” means all human excreta and associated products, but does not include greywater;

“**Waste**” means waste as defined by Section 2 of the *Northwest Territories Waters Act*;

“**Waste Disposal Facilities**” means all facilities designated for the disposal of waste, and includes the Sewage Disposal Facilities, Solid Waste Disposal Facilities, and Bagged Toilet Wastes Disposal Facilities;

“**Water Supply Facilities**” comprises the area and associated intake infrastructure as described in Section 4.1 of the “Fort McPherson Water License Background Report”, December 13, 2013, Stantec.

“**Waters**” means any Waters as defined by Section 2 of the *Northwest Territories Waters Act*.

## **PART B: GENERAL CONDITIONS**

1. The Licensee shall file an Annual Report with the Board, with a copy to the

Inspector, not later than March 31<sup>st</sup> of the year following the calendar year reported which shall contain the following information:

- a) the monthly and annual quantities, either in cubic metres or litres, of fresh water obtained from all sources;
  - b) the monthly and annual quantities in cubic metres of each and all waste discharged;
  - c) the annual quantities of sewage solids removed from the sewage facilities for disposal;
  - d) a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures;
  - e) summaries of all data generated under the "Surveillance Network Program";
  - f) a list of unauthorized discharges;
  - g) an outline of any spill training and communications exercises carried out;
  - h) a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - i) a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
  - j) any other details on water use or waste disposal requested by the Board by November 1<sup>st</sup> of the year being reported;
  - k) updates or revisions to the approved Operation and Maintenance Plans;
  - l) updates or revisions to the approved Spill Contingency Plan.
2. The Licensee shall comply with the "Surveillance Network Program" annexed to this Licence, and any amendment to the said "Surveillance Network Program" as may be made from time to time, pursuant to the conditions of this Licence.
  3. The "Surveillance Network Program" and compliance dates specified in the Licence may be modified at the discretion of the Board.
  4. Meters, devices or other such methods used for measuring the volumes of water used and waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
  5. The Licensee shall, within 60 days of the issuance of this Licence, post the necessary signs, where possible, to identify the stations of the "Surveillance Network Program". All postings shall be located and maintained to the satisfaction of an Inspector.
  6. The Licensee shall, within 60 days of issuance of this Licence, post signs in the appropriate areas to inform the public of Water Supply and Waste Disposal Facilities. All postings shall be located and maintained to the satisfaction of an Inspector.

7. The Licensee shall immediately report to the 24 Hour Spill Report Line (867)920-8130 any spills of Waste, which are reported to or observed by the Licensee, within the municipal boundaries or in the areas of the Water Supply or Waste Disposal Facilities.
8. The Licensee shall ensure a copy of this Licence is maintained at the municipal office at all times.
9. The Licensee shall prepare, and submit to the Board for approval, no later than July 15, 2014, terms of reference for a bio-physical assessment of the environment receiving the sewage effluent discharges, namely Sewage Lake and the lake and wetlands downstream from the trucked sewage retention lagoon. A copy of the terms of reference shall be forwarded to the Inspector.

**PART C: CONDITIONS APPLYING TO WATER USE**

1. The Licensee shall obtain all fresh water from Deep Water Lake using the Water Supply Facilities or as otherwise approved by the Board.
2. The Licensee may obtain water from Water Lake for use on an emergency basis upon approval by the Board, when it is not possible to obtain water from Deep Water Lake.
3. The annual quantity of water used for all purposes shall not exceed 60,000 cubic metres.
4. The water intake hose, used on the water pumps, shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.

**PART D: CONDITIONS APPLYING TO WASTE DISPOSAL**

1. The Licensee shall direct all piped and pumpout Sewage to the Sewage Disposal Facilities or as otherwise approved by the Board.
2. All Sewage effluent discharged from the Sewage Disposal Facilities at “Surveillance Network Program” Station Number 1696-2 shall meet the following effluent quality standards:

PARAMETER	MAXIMUM AVERAGE CONCENTRATION
Suspended Solids	150 mg/L
BOD <sub>5</sub>	120 mg/L
Faecal Coliforms	10 <sup>6</sup> CFU/100mL

The Waste discharged shall have a pH between 6 and 9, and no visible sheen of oil and grease.

3. A Freeboard limit of one metre, or as recommended by a qualified geotechnical engineer and as approved by the Board, shall be maintained at all dykes and earthfill structures associated with the Sewage Disposal Facilities.
4. All bagged toilet wastes (honey bags) shall be disposed of at the Bagged Toilet Waste Disposal Facilities to the satisfaction of an Inspector.
5. The Licensee shall advise an Inspector at least ten days prior to initiating a decant

of the sewage lagoon.

6. The sewage lagoon shall be maintained and operated in such a manner as to prevent structural failure.
7. The Licensee shall maintain the Sewage Disposal Facilities to the satisfaction of an Inspector.
8. The Licensee shall dispose of all solid wastes at the Solid Waste Disposal Facilities or as otherwise approved by the Board.
9. The Licensee shall ensure that any unauthorized wastes associated with the "B" municipal undertaking do not enter any waters.

#### **PART E: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written approval from the Board, carry out modifications to the Water Supply and Waste Disposal Facilities provided that such modifications are consistent with the terms of this Licence and the following requirements are met:
  - a) the Licensee has notified the Board in writing, with a copy to the Inspector, of such proposed modifications at least 60 days prior to beginning the modifications;
  - b) such modifications do not place the Licensee in contravention of either this Licence or the Act;
  - c) the Board has not, during the 60 days following notification of the proposed modifications, informed the Licensee that review of the proposal will require more than sixty 60 days; and
  - d) the Board has not rejected the proposed modifications.
2. Modifications for which all of the conditions referred to in Part E, Item 1 have not been met may be carried out only with written approval from the Board.
3. The Licensee shall provide to the Board, as well as the Inspector, with site plans of the modifications referred to in this Licence within 90 days of completion of the modifications.

#### **PART E: CONDITIONS APPLYING TO CONTINGENCY PLANNING**

1. The Licensee shall have a Contingency Plan in accordance with the Department of Indian Affairs and Northern Development's "Guidelines for Spill Contingency Planning, April 2007" which must meet with approval of the Board.
2. If during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a) advise an Inspector immediately via the 24 Hour NWT Spill Report Line (867) 920-8130; and
  - b) submit to an Inspector, and to the Board, a detailed report on each occurrence not later than 30 days after initially reporting the event.

3. If during the period of this Licence, the prescribed freeboard limit (as prescribed in Part D, Item 3) cannot be maintained, the Licensee shall:
  - a) advise an Inspector immediately
  - b) collect a sample and get the sample analyzed for parameters as prescribed in the attached SNP
  - c) submit to the Inspector for approval a written request to perform an emergency decant
  
3. The Licensee shall maintain drip trays to be utilized when refueling equipment.

#### **PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION**

1. The Licensee shall submit to the Board for approval an Abandonment and Restoration Plan at least six months prior to abandoning any sewage or solid waste facilities. The Plan shall include, but not be limited to:
  - a) contaminated site remediation;
  - b) leachate prevention;
  - c) an implementation schedule
  - d) maps delineating all disturbed areas, borrow material locations, and site facilities;
  - e) consideration of altered drainage patterns;
  - f) type and source of cover materials;
  - g) future area use; and
  - h) hazardous wastes.
2. The Licensee shall implement the Plan specified in Part G, Item 1 as and when approved by the Board.

#### **PART H: CONDITIONS APPLYING TO CONSTRUCTION**

1. Construction of designed structures shall be carried out as approved by the Board.

#### **PART I: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE**

1. The Licensee shall, within six months of the issuance of this Licence, submit to the Board for approval, a revised plan for the Operation and Maintenance of the Sewage and Solid Waste Disposal Facilities. The plan shall include but not be limited to the following:
  - a) frequency of inspection of dams, dykes and drainage courses;
  - b) removal of floating materials from the Sewage Disposal Facilities;



- c) controlling effluent discharge quality;
- d) runoff and drainage control within and around the facility, and restoration of erosion;
- e) treatment of contaminated drainage;
- f) prevention of windblown debris;
- g) managing hazardous waste;
- h) segregation of domestic, metal and recyclable waste materials;
- i) method and frequency of site maintenance, including burning where permitted; and
- j) alternatives designed to reduce burning.
- k) removal and disposal of sewage solids

2. The Licensee shall implement the plan specified in Part I, Item 1 as and when approved by the Board.

**GWICH'IN LAND AND WATER BOARD**



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**Leonard DeBastien, Witness**



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**Elizabeth Wright, Chair**

LICENSEE: Hamlet of Fort McPherson  
 LICENCE NUMBER: G03L3-001  
 EFFECTIVE DATE OF LICENCE: March 3, 2014  
 EFFECTIVE DATE OF SURVEILLANCE NETWORK PROGRAM (SNP): March 3, 2014

**SURVEILLANCE NETWORK PROGRAM**

**Part A: Location of Surveillance Stations**

<u>Station Number</u>	<u>Description</u>
1696-1(a)	Water Lake raw water supply
1696-1(b)	Deep Water Lake raw water supply
1696-2	Effluent discharge at Sewage Decant Control Structure
1696-3	Outflow of Sewage Lake
1696-4	Final effluent discharge prior to entering Peel River (discontinued)
1696-5	Run-off from Solid Waste Disposal Facilities
1696-6	Effluent (combined stream) discharge prior to entering Peel River

**Part B: Sampling and Analysis Requirements**

- Water at Station Number 1696-2 shall be sampled a minimum of four times during the decant and analyzed for the following parameters:

pH	Suspended Solids
Faecal Coliforms	Ammonia Nitrogen
BOD <sub>5</sub>	CBOD

Oil and Grease shall be sampled if a sheen is detected.

- Water at Station Number 1696-3 shall be sampled at least once per year and analyzed for the following parameters:

pH	Suspended Solids
Faecal Coliforms	Ammonia Nitrogen
CBOD	

Oil and Grease shall be sampled if a sheen is detected.

- Water at Station Number 1696-5 shall be sampled two times per year, preferably in July and

in October, and analyzed for the following parameters:

pH	Suspended Solids
Faecal Coliforms	CBOD
Ammonia Nitrogen	Nitrate/Nitrite
Phenol	Oil and Grease
Total Mercury	Total Cadmium
Total Chromium	Total Cobalt
Total Copper	Total Manganese
Total Nickel	Total Lead
Total Iron	Total Zinc

Oil and Grease shall be sampled monthly if a sheen is detected.

4. Water at Station Number 1696-6 shall be sampled two times per year, preferably in July and in October, and analyzed for the following parameters:

pH	Suspended Solids
Faecal Coliforms	Ammonia Nitrogen
CBOD	

5. More frequent sample collection may be required at the request of an Inspector.
6. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of "Standards Methods for the Examination of Water and Wastewater", or by such other methods approved by an Analyst.
7. All analyses shall be performed in a laboratory approved by an Analyst.

#### **Part C: Flow and Volume Measurement Requirements**

1. The monthly and annual quantities of water pumped from Surveillance Network Program Station Numbers 1696-1(a) and 1696-1(b) for municipal purposes shall be measured and recorded in cubic metres or litres.
2. The annual quantities of sewage solids removed from the sewage disposal facility shall be measured and recorded.

#### **Part D: Reports**

1. The Licensee shall, unless otherwise requested by an Inspector, include all of the data and information required by the "Surveillance Network Program" in the Licensee's Annual Report.

Inuvik, October 28, 2020



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**Leonard DeBastien, Witness**

**GWICH'IN LAND AND WATER BOARD**



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**Elizabeth Wright, Chair**



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## REASONS FOR DECISION

File Number:	G03L3-001	Type:	"B" Water Licence
Applicant:	Hamlet of Fort McPherson		
Activity:	Water Use and Deposit of Waste for Municipal Purposes		
Board Meeting:	Thursday October 28, 2020		

With respect to this renewal, the Board has invoked subparagraph 36(1)(a)(ii) of the *Waters Act*. There was no public hearing held in association with this application.

## BACKGROUND

On September 16, 2020 the Hamlet of Fort McPherson requested a six-month renewal of its municipal Water Licence G03L3-001, which expired on September 1, 2020. Due to extenuating circumstances resulting from the COVID-19 pandemic, the Hamlet been unable to fulfill the requirements of a new Water Licence Application. The proposed renewal would carry over the terms and conditions of the Hamlet's existing Licence, with no changes to the Licence, except to the expiry date.

In consideration of this request, and similar requests from other Licensees, On October 9, 2020 the Board circulated a Notice of Intent to Renew the Hamlet's Water Licence, on its own motion, for a period of one year. The Board invited reviewers to provide comments and recommendations on the proposed renewal.

By the close of the public review period on October 23, comments were received from:

- GTC Department of Lands and Resources (GTC DLR)
- GTC Department of Cultural Heritage (GTC DCH)
- Gwich'in Renewable Resources Board (GRRB)
- GNWT Environment and Natural Resources (GNWT ENR)

No concerns with the one year renewal of G03L3-001 were identified during the public review.

## DECISION

After reviewing the written comments and submissions received by the Board, and having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope,

and intent of the MVRMA and the Waters Act and Regulations made thereunder, the Board has determined that Water Licence G03L3-001 be issued, subject to the terms and conditions contained therein, for a period of one year. The Board’s reasons for this decision are set out below.

**REASONS**

- The Board is satisfied that adequate consultation has been conducted and that advice has been sought and considered in accordance with sections 63 and 64 of the MVRMA.
- No significant or unmitigable public concern was made known to the Board.
- It is the opinion of the Board that the conditions attached to G03L3-001 pursuant to the *Waters Act*, will significantly reduce the potential environmental impacts resulting from water use and/or deposit of waste.
- The use of water and/or deposit of waste proposed by the Applicant is of a nature contemplated by the MVRMA and the *Waters Act*.
- The Board has notified the Applicant, through a statement included in the scope of this Licence, that compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of any other legislation.
- There is an obvious requirement that the Licensee provide municipal water and sewage services to its residents.
- The operation will likely contribute to the socio-economic well-being and economic development of the region.
- The renewal of Licence G03L3-001 appears to the Board to be in the public interest.
- The renewal of Licence G03L3-001 for a one-year period will provide a reasonable length of time for the Hamlet of Fort McPherson to develop and submit to the Board a complete application.

**CONCLUSION**

Subject to the term and conditions set out in the Licence, and for the reasons expressed herein, the GLWB is of the opinion that the licensed undertaking for water use and waste disposal associated with the Hamlet of Fort McPherson can be completed by the Licensee while providing for the conservation, development, and utilization of waters in a manner that will provide the optimum benefit for all Canadians, and in particular, for the residents of The Gwich’in Settlement Area.

Water Licence G03L3-001 contains provisions that the Board feels necessary to ensure and monitor compliance with the MVRMA and the *Waters Act* and the Regulations made thereunder and to provide appropriate safeguards in respect of the Applicant’s use water and deposit of waste.

SIGNATURE



October 28, 2020

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Elizabeth Wright  
Chair, Gwich’in Land and Water Board

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Date