



July 7, 2016

File: MV2016L3-0001

Ms. Susan Christie, SAO  
Hamlet of Fort Providence  
Box 290  
Fort Providence NT X0E 0L0

Email:sao@fortprovidence.ca

Dear Ms. Christie:

**Issuance of Type B Water Licence  
Municipal – Hamlet of Fort Providence**

Attached is Water Licence MV2016L3-0001 granted by the Mackenzie Valley Land and Water Board (MVLWB or the Board) in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA) and *Waters Act*. This Licence has been approved for a period of ten (10) years commencing July 7, 2016 and expiring July 6, 2026.

Based on the evidence provided, the Board has confirmed that the Application is exempt from preliminary screening as per Schedule 1, Paragraph 2 of the Exemption List Regulations of the MVRMA which states:

- A development, or part thereof, for which renewal of a permit, licence or authorization is requested that
- a) Has not been modified; and
  - b) Has fulfilled the requirements of the environmental assessment process established by the Mackenzie Valley Resource Management Act, the Canadian Environmental Assessment Act or the Environmental Assessment Review Process Guidelines Order.

Please read all Licence conditions carefully. For the purpose of submitting plans in accordance with this Licence, the date of this letter, July 7, 2016, is the date of issuance. Also attached is a copy of the "General Procedures for the Administration of Licences in the Northwest Territories". The MVLWB requests that you review these and address any questions to the Board's office.

Please note that the Board will be expecting the first Annual Water Licence Report for MV2016L3-0001 to be submitted by June 30, 2017, in accordance with Part B, item 4 and Schedule 1 of the Licence.

### Operation and Maintenance Plan for the Solid Waste Disposal Facilities

An Operation and Maintenance Plan for the Solid Waste Disposal Facilities shall be submitted within one (1) year of issuance (July 7, 2017), in accordance with Part E, Item 2 and Schedule 2, item 1 of MV2016L3-0001, and the comments and commitments made during this review.

The *Operation and Maintenance Plan Template for Municipal Water Licences: Solid Waste Facility* is available at the following link:

<https://mvlwb.com/sites/default/files/documents/Forms/Operation%20and%20Maintenance%20Plan%20Templates%20-%20Solid%20Waste%20Facility%20%28SWF%29%20-%20Nov%2010%2015%20FINAL.pdf>.

The Hamlet may fill in the Template or revise the existing Plan using the Template as a guide – either method is acceptable to the Board.

### Operation and Maintenance Plan for the Sewage Disposal Facilities

An Operation and Maintenance Plan for the Sewage Disposal Facilities shall be submitted within one (1) year of issuance (July 7, 2017), in accordance with Part E, Item 3 and Schedule 2, item 2 of MV2016L3-0001 and the comments and commitments made during this review.

The *Operation and Maintenance Plan Template for Municipal Water Licences: Wastewater (Sewage) Treatment System* is available at the following link:

<https://mvlwb.com/sites/default/files/documents/Forms/Operation%20and%20Maintenance%20Plan%20Templates%20-%20Wastewater%20%28Sewage%29%20Treatment%20System%20%28WWTS%29%20%20and%20Schedules%20-%20Nov%2010%2015%20FINAL.pdf>.

The Hamlet may fill in the Template or revise the existing Plan using the Template as a guide – either method is acceptable to the Board.

### Spill Contingency Plan

The Spill Contingency Plan shall be revised as a standalone plan and resubmitted within one (1) year of issuance (July 7, 2017), in accordance with Part H, item 2 of MV2016L3-0001, and the comments and commitments made during this review, including:

- a) Details on how to address spills in close proximity to a waterbody. This should include detailed instructions on how to respond to a spill in a waterbody (e.g. spill booms) and disposal of contaminated water (i.e. using a vacuum truck to remove contaminated water and disposal at an approved facility).

The *Operation and Maintenance Plan Template for Municipal Water Licences: Spill Contingency Plan* is available at the following link:

[https://mvlwb.com/sites/default/files/documents/Forms/Operation%20and%20Maintenance%20Plan%20Templates%20-%20Spill%20Contingency%20Plan%20-%20Nov%2010\\_15%20FINAL.pdf](https://mvlwb.com/sites/default/files/documents/Forms/Operation%20and%20Maintenance%20Plan%20Templates%20-%20Spill%20Contingency%20Plan%20-%20Nov%2010_15%20FINAL.pdf).

The Hamlet may fill in the Template or revise the existing Plan using the Template as a guide – either method is acceptable to the Board.

#### Operation and Maintenance Plan for the Water Treatment Plant

An Operation and Maintenance Plan for the Water Treatment Plant shall be submitted within one (1) year of issuance (July 7, 2017), in accordance with Part E, item 4 and Schedule 2, item 3 of MV2016L3-0001 and the comments and commitments made during this review.

The Plan shall include, but not be limited to, all of the components outlined in the Board's *Operation and Maintenance Plan Templates for Municipal Water Licences: Water Treatment Plant* which is available at the following link:

[https://mvlwb.com/sites/default/files/documents/Forms/Operation%20and%20Maintenance%20Plan%20Templates%20-%20Water%20Treatment%20Plant%20%28WTP%29%20-%20Nov%2010\\_15%20FINAL.pdf](https://mvlwb.com/sites/default/files/documents/Forms/Operation%20and%20Maintenance%20Plan%20Templates%20-%20Water%20Treatment%20Plant%20%28WTP%29%20-%20Nov%2010_15%20FINAL.pdf).

The Hamlet may fill in the Template or develop a Plan using the Template as a guide – either method is acceptable to the Board.

Please ensure that changes made to the revised Plans are detailed in a revision summary. Also include a table listing the versions and dates of all Plan submissions, indicating which versions have been approved by the Board

The Board requests that, when additional changes are requested from the Board, details of how the information is provided be included in the covering letter. A concordance table could be used to illustrate how the Hamlet of Fort Resolution has addressed each requested change.

Please refer to Annex B appended to the Water Licence for a summary and timetable of submissions required for this Water Licence. The Hamlet shall adhere to the commitments made in their responses to reviewer comments dated June 13, 2016.

A copy of this Licence has been filed on the Public Registry at the office of the MVLWB. Please be advised that this letter, with attached procedures, all inspection reports, and correspondence related thereto is part of the Public Registry and is intended to keep all interested parties informed of the manner in which the Licence requirements are being met. All Public Registry material will be considered if an amendment to the Licence is requested.

The full cooperation of the Hamlet of Fort Providence is anticipated and appreciated. If you have any questions or concerns, please contact Erica Janes at (867) 766-7466 or email [ejanes@mvlwb.com](mailto:ejanes@mvlwb.com).

Yours sincerely,

A handwritten signature in black ink, appearing to read "F. M. Adlem", with a long horizontal flourish extending to the right.

Floyd Adlem  
MVLWB A/Chair

Copied to: Distribution List

Attachments:

- Water Licence cover page and conditions
- General Procedures
- Reasons for Decision



**Mackenzie Valley Land and Water Board  
Water Licence**

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Pursuant to the *Mackenzie Valley Resource Management Act* and Regulations, the Mackenzie Valley Land and Water Board, hereinafter referred to as the Board, hereby grants to:

\_\_\_\_\_ Hamlet of Fort Providence  
(Licensee)

of \_\_\_\_\_ Fort Providence, Northwest Territories  
(Mailing Address)

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

Licence Number:	_____ MV2016L3-0001
Licence Type:	_____ B
Water Management Area:	_____ Northwest Territories 01
Location:	_____ 61° 21' N, 117° 39' W
Purpose:	_____ To use water and dispose of waste and associated uses
Description:	_____ Municipal use
Quantity of Water <b>not to be exceeded</b> :	_____ 60,000 cubic cubic metres (m <sup>3</sup> ) per year
Effective date of licence:	_____ July 7, 2016
Expiry date of licence:	_____ July 6, 2026

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

**Mackenzie Valley Land and Water Board**

Handwritten signature of Floyd Adlem in black ink.

\_\_\_\_\_  
**Floyd Adlem, A/Chair**

Handwritten signature of Amanda Gauthier in black ink.

\_\_\_\_\_  
**Amanda Gauthier, Witness**

**Type B Water Licence MV2016L3-0001  
Hamlet of Fort Providence – Municipal**

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## Part A: Scope and Definitions

### 1. Scope:

- a) This Licence entitles the Licensee to use Water and dispose of Waste for the purpose of a municipal undertaking at the Hamlet of Fort Providence, 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 deposit of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Commissioner in Executive Council under the 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 relieve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial, or municipal legislation.
- d) The Licensee shall take every reasonable precaution to protect the environment.
- e) In conducting its activities under this Licence, the Licensee shall make best efforts to consider and incorporate any scientific and Traditional Knowledge that is made available to the Licensee.

### 2. Definitions:

**Act** – the *Waters Act*, S.G.N.W.T. 2014, C.18.

**Analyst** – an Analyst designated by the Minister under subsection 65(1) of the Act.

**Board** – the Mackenzie Valley Land and Water Board established under subsection 99(1) of the *Mackenzie Valley Resource Management Act*;

**Construction** - any activities undertaken to construct or build any components of, or associated with, the undertaking.

**Discharge** - the direct or indirect release of any Water or Waste to the Receiving Environment.

**Freeboard** – the vertical distance between Water line and the effective Water containment crest on the upstream slope of a dam or dyke.

**Greywater** – all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include Toilet Wastes.

**Inspector** – an Inspector designated by the Minister under subsection 65(1) of the Act.

**Licensee** – the holder of this Licence.

**Maximum Average Concentration** – the running average of any four (4) consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the Surveillance Network Program.

**Minister** – a duly appointed member of the Executive Council who is responsible for the *Waters Act* or the department responsible for administering that Act.

**Modification** – a change, other than an expansion, that does not alter the purpose or function of that structure.

**Professional Engineer** – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists in accordance with the *Engineering and Geoscience Professions Act*, S.N.W.T. 2006, V.16, and whose principal field of specialization is appropriate to address the components of the undertaking at hand.

**Pumpout Sewage** – all Toilet Wastes and/or Greywater collected by means of a vacuum truck for disposal and/or treatment at an approved facility.

**Receiving Environment** – the aquatic environment that receives any Water or Waste released from the undertaking.

**Reclamation** – activities which facilitate the return of areas affected by the Waste Disposal Facilities to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment, human activities, and the surrounding environment.

**Regulations** – Regulations promulgated pursuant to section 63 of the Act.

**Sewage** – all Toilet Wastes and Greywater.

**Sewage Disposal Facilities** – comprises the area and engineered structures designed to contain Sewage as identified in Figure Number 2, titled “Sewage Treatment Lagoon System”, which was included in the Water Licence Renewal application dated April 6, 2016.

**Solid Waste Disposal Facilities** – comprises the area and associated infrastructure designed to contain solid Wastes as identified in Figure Number 3, titled “Domestic Solid Waste and Sewage Treatment Lagoon Site”, which was submitted during the application review and is dated May 31, 2016. These components include: the Landfill site, Construction Waste Area, and Contaminated Soil (remediated).



**Spill Contingency Plan** – a document, developed in accordance with Indian and Northern Affairs Canada’s April 2007, *Guidelines for Spill Contingency Planning*, that describes the set of procedures to be implemented to minimize the effects of a spill or Unauthorized Discharge.

**Surveillance Network Program** – a monitoring program established to define environmental sampling and analysis requirements, as detailed in Annex A of this Licence, to collect Water quality data, and to assess discharge quality, Licence compliance, and potential for impacts to the environment.

**Toilet Wastes** – all human excreta and associated products but does not include Greywater;

**Traditional Knowledge** – the cumulative, collective body of knowledge, experience, and values built up by a group of people through generations of living in close contact with nature. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual, and political change.

**Unauthorized Discharge** – a release or discharge of any Water or Waste not authorized under this Licence.

**Waste** – any substance defined as Waste by section 1 of the Act.

**Waste Disposal Facilities** – comprises the area and associated infrastructure designated for the disposal of Waste, including the Sewage Disposal Facilities and the Solid Waste Disposal Facilities.

**Water** – any Water as defined by section 1 of the Act.

**Water Supply Facilities** – comprises the area and associated infrastructure designed to collect, treat, and supply Water for municipal purposes as identified in Figure Number 1, titled “Water and Waste Facility Locations”, which was submitted during the application review and is dated May 31, 2016.

**Water Use** – a use of Water as defined by section 1 of the Act.

## Part B: General Conditions

1. The Licensee shall ensure a copy of this Licence is maintained at the municipal office at all times.
2. All information submitted to the Board for this Licence shall:
  - a) Be submitted in a form acceptable to the Board;
  - b) Be in accordance with the Board's March 2012, *Document Submission Standards*; and,
  - c) Include a section within each submission which identifies where the pertinent requirements of the Licence are addressed.
3. The Licensee shall operate in accordance with plans and programs approved pursuant to the conditions of this Licence, and with any revisions to such plans and programs as may be made pursuant to the conditions of this Licence and as approved by the Board. If any plan is not approved by the Board, the Licensee shall revise the plan as directed by the Board and resubmit it to the Board for approval.
4. The Licensee shall submit to the Board an **Annual Water Licence Report** no later than June 30 of the year following the year reported (April 1 – March 31), which shall be in accordance with Schedule 1.
5. The Licensee shall comply with the Schedules, which are annexed to, and form part of this Licence, and any changes to the Schedules as may be made by the Board.
6. The Licensee shall comply with the **Surveillance Network Program**, which is annexed to and forms part of this Licence, and any changes to the Surveillance Network Program as may be made by the Board.
7. The Schedules, Surveillance Network Program, and any compliance dates specified in the Licence may be changed at the discretion of the Board. If any date for the submission of a plan, report, or program falls on a weekend or holiday, the plan, report, or program shall be submitted on the following business day.
8. 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.
9. The Licensee shall post the necessary signs to inform the public of the location of the Water Supply Facilities, Waste Disposal Facilities, and Surveillance Network Program stations. All postings shall be located and maintained to the satisfaction of an Inspector.
10. All references to policies, guidelines, codes of practice, statutes, regulations or other authorities shall be read as a reference to the most recent versions, unless otherwise denoted.

### **Part C: Conditions Applying to Water Use**

1. The Licensee shall obtain all Water for municipal purposes from the Mackenzie River using the Water Supply Facilities, or as otherwise approved by Board.
2. The annual quantity of fresh Water withdrawn using the Water Supply Facilities shall not exceed 60,000 cubic metres.
3. The Licensee shall adhere to the best practices outlined in Fisheries and Oceans Canada's *Fish Screen Design Criteria for Flood and Water Truck Pumps*, 2011.
4. The Licensee shall equip and maintain the fresh Water intake pumps with a screen designed to prevent the impingement and/or entrainment of fish. The screen shall have a mesh size sufficient to ensure no entrainment of fish, as outlined in Fisheries and Oceans Canada's *Freshwater Intake End-of-Pipe Fish Screen Guidelines*, 1995.

**Part D: Conditions Applying to Waste Disposal**

1. The Licensee shall ensure that any unauthorized Wastes associated with this undertaking do not enter any Waters.
2. The Licensee shall immediately notify an Inspector of the exceedance of any effluent quality criterion.
3. Sewage and solid Waste from industrial, commercial and institutional operators working outside of the local government boundaries of Fort Providence shall not be accepted at the Waste Disposal Facilities, unless otherwise authorized in writing by an Inspector.

**Sewage**

4. The Licensee shall direct all piped and Pumpout Sewage to the Sewage Disposal Facilities, or as otherwise approved by the Board.
5. The Sewage Disposal Facilities shall be maintained and operated in such a manner as to prevent structural failure.
6. A Freeboard limit of one (1) metre, or as recommended by a Professional Engineer and as approved by the Board, shall be maintained at all dykes and earthfill structures associated with the Sewage Disposal Facilities.
7. All effluent from the Waste Disposal Facilities at Surveillance Network Program station 1412-2 shall meet the following effluent quality criteria:

<b>Parameter</b>	<b>Maximum Average Concentration</b>
Suspended Solids	300 mg/L
Oil and Grease	5 mg/L
CBOD	330 mg/L
Faecal Coliforms	1x10 <sup>5</sup> CFU / 100mL
pH	Above 6

CFU = Colony Forming Units

8. The Licensee shall provide Water sampling results from Surveillance Network Program station 1412-2 to an Inspector and the Board no later than five (5) days prior to the discharge of effluent from the Sewage Disposal Facilities to the Receiving Environment. Discharge shall not commence until authorized in writing by an Inspector.
9. The Licensee shall submit written notification to the Board and an Inspector sixty (60) days prior to the removal of sludge from the Sewage Disposal Facilities. The notification shall include the following details: how the sludge shall be removed; where the sludge will be deposited; how the sludge shall be treated; and final disposal/ end use. Sludge removal shall not commence until authorized in writing by an Inspector.

10. The Licensee shall maintain the Sewage Disposal Facilities to the satisfaction of an Inspector.

### **Solid Waste**

11. The Licensee shall dispose of all solid Wastes at the Solid Waste Disposal Facilities, or as otherwise approved by the Board.

12. The Licensee shall create and maintain waste segregation areas to the satisfaction of the Inspector for:

- a) Household/municipal hazardous Waste;
- b) Municipal solid Waste;
- c) Bulky Waste and scrap metal;
- d) Construction Waste; and
- e) Waste oil.

13. Within one (1) year following issuance of this Licence, the Licensee shall develop and install signage to promote the proper segregation of waste at the Solid Waste Disposal Facilities to the satisfaction of the Inspector.

14. Incineration at the Solid Waste Disposal Facilities is prohibited, unless otherwise authorized in writing by an Inspector.

15. The Licensee shall maintain fencing at the Solid Waste Disposal Facilities to the satisfaction of an Inspector.

16. Contaminated soil from industrial, commercial, residential and institutional operators shall not be accepted at the Solid Waste Disposal Facilities, unless otherwise authorized in writing by an Inspector.

17. The Licensee shall not accept hazardous Wastes at the Waste Disposal Facilities generated by commercial and industrial operators.

18. The Licensee shall take measures to minimize or eliminate standing water at the Solid Waste Disposal Facilities to the satisfaction of an Inspector.

19. The Licensee shall provide Water sampling results from Surveillance Network Program stations 2016-2 and/or 2016-3, and the proposed discharge location to an Inspector and the Board a minimum of ten (10) days prior to the discharge of standing Water from the Solid Waste Disposal Facilities. Discharge shall not commence until authorized in writing by an Inspector.

20. The Licensee shall maintain the Solid Waste Disposal Facilities to the satisfaction of an Inspector.

21. The Licensee shall apply cover material over exposed Waste to the satisfaction of an Inspector.
22. The Licensee shall, within one year of issuance, submit to the Board for approval an **Action Plan** to address capacity issues at Solid Waste Disposal Facilities. The Action Plan shall include, but not be limited to the following:
- a) Design criteria for the proposed new facility;
  - b) Technical information for the proposed site, including drainage patterns;
  - c) Discussion of available siting and design options for the new Solid Waste Disposal Facilities, including a decision matrix that compares the viable siting and design options considered and the criteria by which they are rated;
  - d) Rationale for why the proposed new facility is the best choice;
  - e) An evaluation of the remaining capacity at the existing Solid Waste Disposal Facility and the measures that will be taken to provide short term Waste disposal in a safe and environmentally sound manner until the new facility is available; and
  - f) A timeline for implementation of the Action Plan, including start and finish dates for construction of the new facility.

## **Part E: Conditions Applying to Operation and Maintenance**

1. The Licensee shall act in accordance with the Operation and Maintenance Plan – Sewage and Solid Waste Disposal Facilities submitted to the Board on December 10, 2015 until new plans are approved by the Board.
2. Within one (1) year following issuance of this Licence, the Licensee shall submit to the Board, for approval, an **Operation and Maintenance Plan for the Solid Waste Disposal Facilities**, which shall be in accordance with comments and commitments made during the review process for the Water Licence application and Schedule 2, item 1.
3. Within one (1) year following issuance of this Licence, the Licensee shall submit to the Board, for approval, an **Operation and Maintenance Plan for the Sewage Disposal Facilities**, which shall be in accordance with comments and commitments made during the review process for the Water Licence application and Schedule 2, item 2.
4. Within one (1) year following issuance of this Licence, the Licensee shall submit to the Board, for approval, an **Operation and Maintenance Plan for the Water Treatment Plant**, which shall be in accordance with comments and commitments made during the review process for the Water Licence application and Schedule 2, item 3.
5. The Licensee shall act in accordance with the approved plans referred to in Part E, items 2, 3, and 4 and shall annually review the plans and make any necessary revisions to reflect changes in operations, technology, and the results from research and other studies, or as directed by an Inspector or the Board. Revised plans shall include a brief summary of the changes made, and shall be submitted to the Board, for approval, at least sixty (60) days prior to any proposed changes to the requirements in the approved plans.

## **Part F: Conditions Applying to Construction**

1. A minimum of ninety (90) days prior to construction of any structures intended to contain, withhold, divert or retain Waters or Wastes, the Licensee shall submit to the Board, **final design drawings** stamped and signed by a Professional Engineer, which notes “issued for construction” or similar phrase.
2. Construction of structures referred to in Part F, item 1 shall be carried out in accordance with the recommendations of the Professional Engineer responsible for the design, including, but not limited to, recommendations regarding field supervision and inspection requirements.
3. A minimum of ten (10) days prior to the commencement of construction of the structures referred to in Part F, item 1, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the name and contact information for the construction superintendent.
4. Within ninety (90) days of the completion of the construction of the structures referred to in Part F, item 1, the Licensee shall submit to the Board an **As-built Report** which shall include as-built drawings stamped and signed by a Professional Engineer and descriptions and rationale for changes made that deviate from the final design drawings referred to in Part F, item 1, and notes “final” or similar phrase.
5. The Licensee shall only use material that is clean and free of contaminants and is from a source that has been approved in writing by an Inspector.



## **Part G: Conditions Applying to Modifications**

1. The Licensee may, without written approval from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that the following requirements are met:
  - a) The Licensee has notified the Board and Inspector, in writing, of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - b) The Modifications do not place the Licensee in contravention of either the Licence or the Act;
  - c) The Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that further information is required or that review of the proposal will require more than sixty (60) days;
  - d) An Inspector has authorized the proposed Modifications and provided a letter of notification to the Board; and,
  - e) The Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part G, item 1, have not been met, may be carried out only with written approval from the Board.
3. Within ninety (90) days of the completion of the Modifications referred to in Part G, item 1, the Licensee shall submit to the Board **As-built drawings** stamped and signed by a Professional Engineer, which notes “final” or similar phrase.

## **Part H: Conditions Applying to Spill Contingency Planning**

1. The Licensee shall act in accordance with the **Spill Contingency Plan** submitted to the Board on April 6, 2016, as part of the Water Licence renewal application until a revised plan is approved by the Board.
2. Within one(1) year following issuance, the Licensee shall submit to the Board, for approval, a revised **Spill Contingency Plan**. The Plan shall be revised in accordance with comments and commitments made during the review process for the Water Licence application. The Plan shall include, but not be limited to, all of the components outlined in the Board's *Operation and Maintenance Plan Templates for Municipal Water Licences: Spill Contingency Plan*.
3. The Licensee shall act in accordance with the approved Spill Contingency Plan referred to in Part H, item 2, and shall annually review the Plan and make any necessary revisions to reflect changes in operations, technology, chemicals or fuels, or as directed by an Inspector or the Board. Revised Plans shall include a brief summary of the changes made, and shall be submitted to the Board, for approval, at least sixty (60) days prior to any proposed changes to the requirements in the approved Plan.
4. If, during the term of this Licence, a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:
  - a) Implement the Spill Contingency Plan;
  - b) Report the incident immediately via the 24-hour NWT Spill Report Line at (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT 1752/0593;
  - c) Report each spill and Unauthorized Discharge to the Board and an Inspector within 24 hours; and
  - d) Submit a detailed report on each spill and Unauthorized Discharge, including descriptions of root causes, response actions and any changes to procedures to prevent similar occurrences in the future, to the Board within thirty (30) days.
5. All spills and Unauthorized Discharges of Water or Waste shall be reclaimed to the satisfaction of an Inspector.

**Part I: Conditions Applying to Closure and Reclamation**

1. The Licensee shall carry out progressive Reclamation of disturbed areas as soon as is reasonably practical.
2. The Licensee shall submit to the Board, for approval, a **Closure and Reclamation Plan** at least six (6) months prior to the closure of any component or cell of the Sewage or Solid Waste Disposal Facilities. The plan shall be in accordance with Schedule 3, item 1.
3. The Licensee shall act in accordance with the approved Closure and Reclamation Plans referred to in Part I, item 2.
4. The Licensee shall complete Reclamation activities within the time schedule specified in the Plan or as subsequently revised and approved by the Board.

**Signed the behalf of the Mackenzie Valley Land and Water Board**



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**Floyd Adlem, A/Chair**



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**Amanda Gauthier, Witness**

## Schedule 1 – Annual Water Licence Report

1. The **Annual Water Licence Report** referred to in Part B, item 4 of this Licence shall include, but not be limited to, the following information:
  - a) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources;
  - b) The monthly and annual quantities in cubic metres of each and all Waste discharged to the Waste Disposal Facilities;
  - c) The monthly and annual quantities in cubic metres of Waste removed from the Waste Disposal Facilities;
  - d) The monthly and annual quantities of all Sewage and solid Waste deposited into the Waste Disposal Facilities by commercial and industrial operators working outside the municipal boundaries of Fort Providence;
  - e) Tabular summaries of all data generated under the Surveillance Network Program (SNP) referred to in Part B, item 6 of this Licence;
  - f) Laboratory reports for all samples collected for the Surveillance Network Program, attached as an appendix;
  - g) Geographic coordinates for all Surveillance Network Program stations and a map showing station locations;
  - h) A summary of activities undertaken to install and maintain fencing at the Waste Disposal Facilities;
  - i) A summary of activities undertaken to install and maintain signage at the Waste Disposal Facilities and Surveillance Network Program stations;
  - j) A summary of sludge management activities including results of depth and volume measurements, sludge removal and treatment;
  - k) A summary of Construction activities conducted in accordance with Part F of this Licence;
  - l) A summary of Modification activities and major maintenance work conducted on the Water Supply and Waste Disposal Facilities, including all associated structures, in accordance with Part G of this Licence;
  - m) A list and description of all Unauthorized Discharges that occurred during the previous calendar year, including the date, NWT spill number, volume, location, and summary of the circumstances and follow-up actions taken, and the status (i.e. open or closed), in accordance with the reporting requirements referred to in Part H, item 4 of this Licence;
  - n) An outline of any spill training and communications exercises carried out during the previous calendar year;
  - o) A summary of any closure and reclamation work completed during the year and an outline of any work anticipated for the next year;
  - p) 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;
  - q) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
  - r) A summary of any updates or revisions to the Spill Contingency Plan, Management Plans and Operation & Maintenance Plans; and
  - s) Any other details on Water Use, operating procedures, Modifications, maintenance work, or other topics, requested by the Board on or before November 1 of the year being reported.

## Schedule 2 – Operation and Maintenance

1. The revised **Operation and Maintenance Plan for the Solid Waste Disposal Facilities** referred to in Part E, item 2 of this Licence shall include, but not be limited to, the following information:
  - a) All of the components outlined in the Board's *Operation and Maintenance Plan Template for Municipal Water Licences: Solid Waste Facility*;
  - b) A map showing all the components of the Solid Waste Disposal Facilities and SNP stations that monitor these facilities;
  - c) The remaining capacity or lifespan for each component of the Solid Waste Disposal Facilities;
  - d) Details about which sections of Solid Waste Disposal Facilities have been progressively reclaimed;
  - e) Frequency of compaction and cover of Waste, and source of cover material;
  - f) Use of drainage controls, measures employed to minimize standing water in waste cells, and contingency measures for leachate that does not receive approval to discharge;
  - g) Monitoring conducted under the Surveillance Network Program;
  - h) Provisions for secondary containment of Hazardous Waste;
  - i) Measures to prevent commercial, industrial and institutional Hazardous Wastes from entering the facilities; and
  - j) Details on contaminated soil management, including soil testing results, and plans and timeline for the end use of the soil and site.
  
2. The revised **Operation and Maintenance Plan for the Sewage Disposal Facilities** referred to in Part E, item 3 of this Licence shall include, but not be limited to, the following information:
  - a) All of the components outlined in the Board's *Operation and Maintenance Plan Template for Municipal Water Licences: Wastewater (Sewage) Treatment System*;
  - b) A map showing all the components of the Sewage Disposal Facilities and Surveillance Network Program stations that monitor these facilities;
  - c) Measures that will be taken to manage effluent that does not meet effluent quality criteria set out in Part D, item 7;
  - d) Sludge management, including how sludge depth is monitored, how sludge is managed, tested, removed, treated and disposed of; and
  - e) Water quality monitoring conducted under the Surveillance Network Program.

3. The revised **Operation and Maintenance Plan for the Water Treatment Plant** referred to in Part E, item 4 of this Licence shall include, but not be limited to, the following information:
  - a) All of the components outlined in the Board's *Operation and Maintenance Plan Templates for Municipal Water Licences: Water Treatment Plant*;
  - b) A map showing the area and associated infrastructure for the water supply facilities, including the raw water intake location. The map should be at an adequate scale to show the location of any wastewater discharge;
  - c) Information on the quality and quantity of Waste and backwash water discharged from the Water Treatment Plant;
  - d) Details of Waste and backwash water disposal;
  - e) Discharge criteria for backwash water; and
  - f) Contingency plans to manage backwash water that does not meet criteria referred to in Part F, item 4(c).

### **Schedule 3 – Closure and Reclamation Plan**

1. With regard to the facility being closed, the **Closure and Reclamation Plan** referred to in Part I, items 2 shall include, but not be limited to, the following information:
  - a) A description of existing conditions, including photographs;
  - b) A description of monitoring activities conducted prior to closure and a summary of results obtained;
  - c) Contaminated site remediation;
  - d) Plans to minimize the potential for leachate to contaminate groundwater and surface runoff;
  - e) Consideration of altered drainage patterns;
  - f) Type and source of cover materials;
  - g) Future area use;
  - h) Hazardous Wastes removal, transportation, and disposal;
  - i) A post-closure monitoring plan;
  - j) An implementation schedule; and
  - k) Maps delineating all disturbed areas, borrow material locations, and site facilities including hydrological features and elevation contours.

**Annex A:  
Surveillance Network Program (SNP)  
Annexed to Water Licence MV2016L3-0001 Part B, item 6  
Hamlet of Fort Providence**

**Table of Contents:**

Part A: Reporting Requirements

Part B: Sampling and Analysis Requirements

Part C: Surveillance Network Program Station Descriptions

**Part A: Reporting Requirements**

1. The effective date of this Surveillance Network Program (SNP) is July 7, 2016.
2. The Licensee shall include all of the data and information required in Part C of this Annex in the Annual Water Licence Report, as specified in Part B, item 4 of this Licence.
3. The Licensee shall also provide SNP data at other times, if requested by an Inspector or the Board.

**Part B: Sampling and Analysis Requirements**

1. More frequent sample collection or provision of data may be required at the request of an Inspector.
2. The location of sampling sites is subject to the approval of an Inspector. The Licensee shall work with an Inspector to determine suitable locations for sampling sites. Signs shall be posted as per Part B, item 9 of this Licence.
3. All sampling, sample preservation, and analyses shall be conducted in accordance with methods prescribed in the current edition of American Public Health Association's (APHA) *Standard Methods for the Examination of Water and Wastewater* at the time of analysis, or by other such methods approved by an Analyst.
4. All analyses shall be performed in a laboratory accredited by the Canadian Association for Laboratory Accreditation (CALA) for the specific analyses to be performed or as approved by an Analyst.



**Part C: SNP Station Descriptions and Monitoring Requirements**

<b>SNP station</b>	<b>Location</b>	<b>Sampling Frequency</b>	<b>Sampling Parameters</b>	<b>Rationale</b>
1412-1	Raw Water intake line at the Water Supply Facilities	Monthly	Volume of Water in cubic metres	To monitor the monthly and annual quantity of Water withdrawn for municipal purposes.
1412-2	Sewage effluent from the Sewage Disposal Facilities	Prior to discharge and weekly during discharge	pH, CBOD <sub>5</sub> , Total Suspended Solids, Ammonia, Total Phosphorus, Nitrate, Nitrite, Faecal Coliforms, Oil and Grease	Site of compliance. To monitor final effluent quality prior to discharge to the Receiving Environment.
1412-3	Raw sewage from pump out truck	Discontinued	Discontinued	Discontinued
2016-1	Sewage effluent flowing through the ponded area of the wetland (Exact location(s) to be determined with the Inspector)	At the beginning and end of the open water season, (i.e. one week following freshet, and before freeze-up)	pH, CBOD <sub>5</sub> , Total Suspended Solids, Ammonia, Total Phosphorus, Nitrate, Nitrite, Faecal Coliforms, Oil and Grease	To monitor the quality of effluent that has been discharged from the Sewage Disposal Facilities and determine the effectiveness of wetland treatment before final discharge to the Mackenzie River.
2016-2	Ponded water within or adjacent to the domestic waste cells at the Solid Waste Disposal Facilities (Exact location to be determined with the Inspector)	Twice per year during the months of June and September; and prior to discharge of accumulated water.	Volume of water discharged in cubic metres. Total Suspended Solids, Total Cadmium, Total Chromium, Total Cobalt, Total Copper, Total Iron, Total Lead, Magnesium, Total Manganese, Total Mercury, Total Nickel, Oil and Grease, Total Petroleum Hydrocarbons, BTEX, Total Phenols, Total Phosphate, Calcium, Potassium, Sodium, Sulphate, Total Zinc, pH, conductivity	To monitor potential impacts of the Solid Waste Disposal Facilities on groundwater and surface Water, and to monitor water quality and quantity prior to discharge.

SNP station	Location	Sampling Frequency	Sampling Parameters	Rationale
2016-3	Ponded water within or adjacent to the construction waste cell at the Solid Waste Disposal Facilities (Exact location to be determined with the Inspector)	Twice per year during the months of June and September; and prior to discharge of accumulated water.	Volume of water discharged in cubic metres. Total Suspended Solids, Total Cadmium, Total Chromium, Total Cobalt, Total Copper, Total Iron, Total Lead, Magnesium, Total Manganese, Total Mercury, Total Nickel, Oil and Grease, Total Petroleum Hydrocarbons, BTEX, Total Phenols, Total Phosphate, Calcium, Potassium, Sodium, Sulphate, Total Zinc, pH, conductivity	To monitor potential impacts of the Solid Waste Disposal Facilities on groundwater and surface Water and to monitor water quality and quantity prior to discharge.

**Signed on behalf of the Mackenzie Valley Land and Water Board**




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**Floyd Adlem  
A/Chair**




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**Witness**

**Annex B:  
Concordance Table of Items Requiring Submission in Water Licence MV2016L3-0001**

This table summarizes the information the Licensee is required to submit as per the Water Licence Conditions. It supplements the Water Licence. If there are any discrepancies between this table and the body of the Water Licence, the Water Licence conditions prevail.

Table 1: Concordance Table of Items Requiring Submission

<b>Part of Licence</b>	<b>Item</b>	<b>Timeline</b>
B	Annual Water Licence Report	By June 30, each year
D	Notify an Inspector of the exceedance of any effluent quality criterion	When any effluent quality criteria are exceeded
D	Submit sampling results from SNP 1412-2 to an Inspector and the Board	Minimum of five (5) days prior to discharge
D	Submit written notification of sludge removal from the Sewage Disposal Facilities	60 days prior to the removal of sludge
D	Develop and install signage to promote the proper segregation of Waste at the Solid Waste Disposal Facilities	Within one (1) year of issuance
D	Submit sampling results from SNP 2016-2 and/or 2016-3 and proposed discharge location to an Inspector and the Board	Minimum of ten (10) days prior to discharge
D	Submit an Action Plan to address capacity issues at the Solid Waste Disposal Facilities	Within one (1) year of issuance
E	Submit an Operation and Maintenance Plan for the Solid Waste Disposal Facilities	Within one (1) year of issuance
E	Submit an Operation and Maintenance Plan for the Sewage Disposal Facilities	Within one (1) year of issuance
E	Submit an Operation and Maintenance Plan for the Water Treatment Plant	Within one (1) year of issuance
F	Final design drawings	90 days prior to construction of any structures intended to contain, withhold, divert or retain Waters or Wastes
F	Written notification to the Board and an Inspector	10 days prior to commencement of construction
F	As-built Report	Within 90 days of completion of construction

G	Written notification to the Board and an Inspector of any proposed Modifications to Water Supply Facilities or Waste Disposal Facilities	60 days prior to beginning the Modification
G	As-built plans and drawings	Within 90 days of completion of Modification
H	Submit a revised Spill Contingency Plan	Within one (1) year of issuance
I	Submit a Closure and Reclamation Plan	Six (6) months prior to the closure of any component or cell of the Sewage or Solid Waste Disposal Facilities

**General Procedures for the Administration of Licences  
Issued Under the *Waters Act*  
in the Northwest Territories**

1. At the time of issuance, a copy of the Licence is placed on the Public Registry in the office of the Mackenzie Valley Land and Water Board (MVLWB or the Board) in Yellowknife and is then available to the public.
2. To enforce the terms and conditions of the Licence, the Minister of Environment and Natural Resources has appointed Inspectors in accordance with subsection 65(1) of the *Waters Act*. The Inspectors coordinate their activities with staff of the MVLWB. The Inspector responsible for Licence MV2016L3-0001 is located in the Fort Smith office.
3. To keep the MVLWB and members of the public informed of the Licensee's conformity to the Licence's conditions, the inspectors prepare reports which detail observations on how each item in the Licence has been met. These reports are forwarded to the Licensee with a covering letter indicating which action, if any, should be taken. The inspection reports and cover letters are placed on the Public Registry, as are any responses received from the Licensee pertaining to the inspection reports. It is therefore of prime importance that you react in all areas of concern regarding all inspection reports so that these concerns may be clarified.
4. Licence MV2016L3-0001 will expire on July 6, 2026; if required, it is the responsibility of the Licensee to apply to the MVLWB for a new licence. The past performance of the Licensee, new documentation and information, and points raised during a public hearing, if required, will be used to determine the terms and conditions of any new licence. Please note that if the Licence expires and another has not been issued, then water and waste disposal must cease, or you, the Licensee, would be in contravention of the *Waters Act*. For a Type A Licence, an application for a new licence shall be made at least one year in advance of the Licence's expiry date. In the case of a Type B Licence, an application shall be made at least six months in advance of the Licence's expiry date.
5. If, for some reason, Licence MV2016L3-0001 requires amendment, a public hearing may be required. You are reminded that applications for amendments should be submitted as soon as possible to provide the MVLWB ample time to complete the amendment process. The process may take up to six months or more depending on the scope of the amendment requested.

6. Specific clauses of your Licence make reference to the Board, Analyst, or Inspector. The contact person, address, phone, and fax number of each is:

**Mackenzie Valley Land and Water Board:**

Public Registry Clerk  
Mackenzie Valley Land and Water Board  
7th Floor - 4922 48 Street,  
P.O. Box 2130  
YELLOWKNIFE NT X1A 2P6  
Phone: (867) 669-0506  
Fax: (867) 873-6610

**Analyst:**

Analyst  
Water Laboratory  
Government of the Northwest Territories  
P.O. Box 1320  
YELLOWKNIFE NT X1A 2L9  
Phone: (867) 765-6644

**Inspector:**

Department of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 900  
FORT SMITH, NT X0E 0N0  
Phone: (867) 872-6421  
Fax: (867) 872-4250

7. Specific clauses of your licence may reference security. The contact person, address, and phone and fax numbers of the individual administering security deposits is:

Director, Water Resources  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 1320  
YELLOWKNIFE NT X1A 2L9  
Phone: (867) 873-7401  
Fax: (867) 669-2716



**Mackenzie Valley Land and Water Board**  
 7th Floor - 4922 48th Street  
 P.O. Box 2130  
 YELLOWKNIFE NT X1A 2P6  
 Phone (867) 669-0506  
 FAX (867) 873-6610

## Reasons for Decision

Issued pursuant to section 36 and 54 of the *Waters Act*

Type B Water Licence Application	
<b>Preliminary Screener</b>	MVLWB
<b>Reference/File Number</b>	MV2016L3-0001
<b>Applicant</b>	Hamlet of Fort Providence
<b>Project</b>	Use of Water and Disposal of Waste for Municipal Purposes – Hamlet of Fort Providence, Northwest Territories

### Decision from Mackenzie Valley Land and Water Board Meeting of

July 7, 2016

With respect to this Application, notice was given in accordance with sections 63 and 64 of the Mackenzie Valley Resource Management Act (MVRMA) and section 43 of the *Waters Act*. There was no public hearing held in association with this Application.

#### Background

The Mackenzie Valley Land and Water Board (MVLWB) received an Application for a Type B Water Licence (Licence) from the Hamlet of Fort Providence on April 6, 2016. This Application was deemed complete on April 13, 2016. The Application and a draft Licence was sent out for review on May 2, 2016.

#### Decision

The Board is satisfied that:

- the project has been screened pursuant to the MVRMA;
- any potential adverse environmental effects are insignificant or mitigable with known technology;
- the project is not likely to be a source of public concern; 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.

After reviewing the submission of the Applicant, the written comments received by the Board and the Staff report prepared for the Board, the Board, 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, has determined that Water Licence MV2016L3-0001 be issued subject to the terms and conditions contained therein. The Board's reasons for this decision are set out below.

## **Determinations Pertaining to Water Licence W2016L3-0001**

### **Requirements of Section 26 and 27 of the *Waters Act***

#### ***Existing Licensees***

After reviewing the submissions filed on the Public Registry, the Board is satisfied that, with respect to paragraph 26(5)(a) of the *Waters Act*, the granting of this Licence to the Hamlet of Fort Providence will not adversely affect, in a significant way, any existing Licensee, provided the conditions of the Licence are adhered to. There are no other applicants with precedence.

#### ***Existing Water Users***

Paragraph 26(5)(b) of the *Waters Act* prohibits the issuance of a Licence unless the Board is satisfied that appropriate compensation has been or will be paid by the Applicant to people who were, at the time when the Applicant filed its Application with the Board, members of the classes of water users, depositors, owners, occupiers, or holders listed under paragraph 26(5)(b), who would be adversely affected by the use of waters, or deposit of waste proposed by the Applicant.

The Board received no claims for compensation either during the prescribed period or afterwards. Provided that compliance with the Water Licence conditions is achieved, the Board does not believe that any users or persons listed in paragraph 26(5)(b) of the *Waters Act* will be adversely affected by the use of Waters or the deposit of Waste proposed by the Applicant.

#### ***Water Quality Standards***

Insofar as subparagraph 26(5)(c)(i) of the *Waters Act* is concerned, the Board is of the view that compliance with the Licence conditions will ensure that waste produced by the Hamlet of Fort Providence will be treated and deposited in a manner that will maintain water quality consistent with applicable standards and the Board's *Water and Effluent Quality Management Policy*.

#### ***Effluent Quality Standards***

Consistent with subparagraph 26(5)(c)(ii) of the *Waters Act*, the Board is satisfied that the effluent standards it has set out in the Licence as conditions are consistent with the Board's *Water and Effluent Quality Management Policy* and will protect the receiving waters and environment. These are further discussed below.

#### ***Financial Responsibility of the Applicant***

The MVLWB must satisfy itself of the financial responsibility of the Hamlet under paragraph 26(5)(d) of the *Waters Act* before it can issue the Licence. The project will be undertaken by the Hamlet. The MVLWB is confident that the Hamlet is capable of meeting any financial obligations set out in the *Waters Act* and Licence concerning the use of water and deposit of waste for municipal purposes at the Hamlet of Fort Providence.



## **Requirements of Subsection 27(2) of the *Waters Act***

It is the opinion of the Board that adherence to the conditions of the Licence will ensure that any potential adverse impacts on other water users, which might arise as a result of the issuance of the Licence, will be minimized.

## **Water Licence W2016L3-0001 Term and Conditions**

### ***Water Licence Term***

The Hamlet of Fort Providence requested a term of 10 years in their Licence Application. The Board has set the term of the Licence for 10 years consistent with other recent municipal water license issuances, such as Fort Resolution (MV2014L3-0008), Fort Simpson (MV2015L1-0001) and for Enterprise (MV2014L3-0007).

### ***Part A: Scope and Definitions***

#### Scope

The scope of the Licence authorizes the Licensee to use water and dispose of Waste for municipal undertakings.

#### Definitions

The Board has included a number of definitions in the Licence in order to ensure a common understanding of Licence conditions and avoid future differences in interpretation. The definitions use wording similar to that found in water licenses previously issued by the Board.

### ***Part B: General Conditions and Schedule 1***

Part B stipulates matters regarding compliance and conformity with the MVRMA and the *Waters Act*, and an assortment of conditions that support the other Parts of the Licence. This includes conditions which pertain to the Surveillance Network Program (SNP), measuring devices, signage, annual reporting, and the location of copies of this water licence. These conditions are consistent with other water licences issued by the Board and are appropriate for the Hamlet of Fort Providence.

An Annual Water Licence Report is required by Part B, item 4, and specific requirements are further outlined in Schedule 1. These requirements are standard for municipal water licenses. Additional reporting requirements were included based on reviewer comments as follows:

- Schedule 1, item 1(f): Laboratory results for all SNP sampling. This was included in response to a recommendation made by ECCC<sup>1</sup> during the review process. Submission of raw data from sampling will facilitate further analysis and data verification, as required.
- Schedule 1, item 1(g): Geographic coordinates for SNP stations and map. This was included in response to recommendations made by ECCC and ENR<sup>2</sup> during the review process.

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<sup>1</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #6.

<sup>2</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #6 and ENR comment #7.

The reporting period for the Annual Report is April 1 – March 31, with the report submission to be made by June 30. This schedule differs from the majority of municipal water licences for which the reporting term is the calendar year and reports are due March 31 following the year reported. This timeline was requested by the Hamlet for the previous Licence MV2006L3-0002 and Board staff received no comments from the Hamlet for the alignment of these timelines with other recently issued water licenses.

### ***Part C: Conditions Applying to Water Use***

The conditions in Part C of the Licence MV2016L3-0001 address the sources and maximum amounts of freshwater that can be used for the municipal undertakings, and stipulate other restrictions related to water withdrawals. The maximum water use that the community is licensed for is the current operating capacity of the Water Supply Facilities. The conditions in this Licence are consistent with conditions found in other water licenses recently issued by the Board.

### ***Part D: Conditions Applying to Waste Disposal***

The conditions in Part D of the Licence address waste disposal requirements and are generally consistent with conditions found in previous water licenses issued by the Board. Any exceptions are discussed in more detail below.

Part D, item 3 was included in the draft Water Licence that was circulated for review (as Part D, item 15), which required the Hamlet to submit a Commercial and Industrial Operators Waste Management Plan for Board approval. This requirement was included to encourage the Hamlet to anticipate, plan for and manage the waste streams that they choose to accept from commercial and industrial operators operating outside of the municipal boundaries. The Board generally requires outside operators to obtain an agreement from a local municipality to accept their waste prior to issuance of an authorization. During the review process, both ECCC and ENR recommended<sup>3</sup> that sewage and solid waste from commercial and industrial operators operating outside of the municipal boundaries not be accepted by the Hamlet. The Hamlet, in their response to these comments, agreed with these recommendations. Based on this evidence, this condition was revised to disallow the acceptance of waste from industrial or commercial operators unless authorized by an Inspector.

#### Sewage Disposal Facilities

The Board typically includes Part D, items 4, 5 and 10 for municipal licensees as they are typical for sewage treatment best practices.

Part D, item 6 (freeboard limit) was included as it is typically used for structures required to retain liquid wastes.

#### Effluent Quality Criteria for Sewage Disposal Facilities

Part D, item 7 includes the Effluent Quality Criteria (EQC) for effluent from the Sewage Disposal Facilities.

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<sup>3</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial/Renewal Application, Staff Report and Comments, ECCC comment #5 and ENR comment #5.

The Board's approach to managing the deposit of waste to the receiving environment through water licence terms and conditions is described in the MVLWB's *Water and Effluent Quality Management Policy*.<sup>4</sup> Effective March 31, 2011, this Policy is being applied to all new and renewal water license Applications throughout the Mackenzie Valley.

In 2014, the *Wastewater Effluent System Regulations*<sup>5</sup> (WSERs) were legislated in all Canadian provinces and include performance standards of CBOD (carbonaceous biological oxygen demand)  $\leq 25$  mg/L, TSS (total suspended solids)  $\leq 25$  mg/L, TRC (Total Residual Chlorine)  $\leq 0.02$  mg/L; and un-ionized ammonia  $\leq 1.25$  mg/L; however, the WSERs do not yet apply to wastewater treatment systems in Canada's north. It is unknown when the WSERs will be legislated in the Northwest Territories because of the unique challenges presented by the northern environment. Accordingly, these standards were not directly considered in the discussions regarding reassessment of effluent quality criteria for this Licence.

Calculating water-quality-based EQC in place of applying set discharge limits requires sufficient data on the quality and flow of water in the receiving water body, as well as the establishment of water quality objectives (WQOs) for the site. At this time, the Board does not have adequate evidence to make a determination on appropriate WQOs for this site, and limited data is available for the receiving water body. Additionally, the achievability of any calculated EQC would need to be evaluated, and the Board does not have sufficient data on the quality of effluent from the sewage treatment system to conduct such an evaluation. As such, the Board has not considered water-quality based EQC in this case.

Part D, item 3 of the existing Licence MV2006L3-0002 stipulates that sewage discharged from SNP station 1412-2 meet the following effluent criteria: (Maximum Average Concentration) Faecal Coliforms =  $1 \times 10^5$  CFU/100 ml; BOD<sub>5</sub> = 360 mg/L; Suspended Solids = 300 mg/L; Oil and Grease Non-Visible; and the waste discharged shall have a pH above 6. These criteria were recommended by the Inspector during the issuance of MV2006L3-0002 and are consistent with the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories*<sup>6</sup>. During the term of the existing Licence MV2006L3-0002, the criteria listed in Part D, item 3 were met<sup>7</sup>, and in this sense can be considered as technology-based EQC, as they are EQC that the existing Sewage Disposal Facility can meet.

During the review of this Application, the MVLWB solicited recommendations for the EQC to be met at SNP station 1412-2. Environment and Natural Resources, Government of the Northwest Territories (ENR) noted that they are, "Not opposed to applying the same EQCs to the water licence renewal but notes that the EQC should be based the achievability of the treatment systems as well as the conditions of the receiving environment<sup>8</sup>."

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<sup>4</sup> Water and Effluent Quality Management Policy, Standard Procedure and Consistency Working Groups (WG), March 2011.

<sup>5</sup> [Wastewater System Effluent Regulations](#), SOR/2012-139, Minister of Justice, Canada.

<sup>6</sup> *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories*, 1992, Northwest Territories Water Board.

<sup>7</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2006L3-0002, Annual Reports 2007-2015.

<sup>8</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial Renewal Application, Staff Report and Comments, Hamlet of Fort Providence, GNWT-ENR Comment #2.

Using the *Alberta Water Quality Based Effluent Limits Procedures Manual*<sup>9</sup>, Board staff completed basic calculations with limited available data for TSS to estimate any changes to background water quality using the proposed technology-based EQC. The resultant concentration for TSS in the Mackenzie River was conservatively calculated using the following formula:

$$C = (Q_e C_e + Q_s C_s) / (Q_e + Q_s)$$

Where:

- $Q_e$  = volume of effluent discharge
- $Q_s$  = volume of receiving stream available for mixing
- $C_e$  = concentration of a substance in the effluent
- $C_s$  = upstream concentration of substance
- $C$  = resultant instream concentration of substance after mixing

The following conservative values were used:

$Q_e$  = 2,880 m<sup>3</sup>/day (rate of discharge from Sewage Disposal Facilities under high flow conditions<sup>10</sup>)

$Q_s$  = 10% of 1,148 m<sup>3</sup>/s (1,148 m<sup>3</sup>/s was calculated as the 7Q10 value – the lowest 7-day average flow that occurs on average once every 10 years using flow recorded between 1960-2013 at the Mackenzie River at Fort Simpson by Environment Canada between 1965-2013<sup>1112</sup>)

$C_e$  = 300 mg/L (the existing EQC for TSS in MV2006L3-0002)

$C_s$  = 8 mg/L (highest TSS measured in Mackenzie River by Community Based Monitoring Program ENR, GNWT in 2012-2015).

The resultant  $C = 8.08$  mg/L illustrates that even under conservative, worst-case conditions, the EQC of 300 mg/L of TSS appears to have no significant effect on the background TSS concentration in the Mackenzie River, and the Board concludes that this technology-based EQC for TSS is appropriate for this site. It is also important to note that the discharge receives further treatment post discharge as it flows through the wetlands between the Sewage Treatment Facilities and the Mackenzie River.

No BOD data was available for the Mackenzie River, so the above calculation could not be performed for the EQC for BOD. Based on the resultant TSS concentration above, it is illustrated that using very conservative flow data and worst-case conditions for dilution, the dilution of the Sewage Treatment Facilities effluent in the Mackenzie River is very high. Under these conditions, the Board concludes that the existing EQC for BOD is appropriate. This approach to using technology-based EQCs when effluent is discharged to a large river with a dilution factor is similar to the Town of Fort Smith's Water Licence, MV2011L3-0001.<sup>13</sup> Since CBOD and BOD are closely related parameters that are both used to monitor the oxygen-consuming capability of sewage discharges, and because the Wastewater System

<sup>9</sup>Alberta Environmental Protection, [Water Quality Based Effluent Limits Procedures Manual](#), 1995.

<sup>10</sup> See email exchange between Ann Peters and Heather Scott, June 2016, [MV2016L3-0001 - Ft Providence - Clarification on sewage treatment discharge information - Jun16-16.pdf](#).

<sup>11</sup> See email exchange between Derek Faria and Heather Scott, June 2016, [MV2016L3-0001 - Ft Providence - Flow data analysis for Mackenzie River near Ft Providence - Jun16-16.pdf](#).

<sup>12</sup>See Environment Canada, Water Office Database ([www.wateroffice.ec.gc.ca](http://www.wateroffice.ec.gc.ca)), Monthly Discharge Data for Mackenzie River at Fort Providence (Station 10FB001).

<sup>13</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for Reasons for Decision, [MV2001L3-0001 Type A WL Approval – Nov 23-11](#), Town of Fort Smith.

Effluent Regulations<sup>14</sup> uses CBOD instead of BOD, it is recommended that CBOD be monitored and used as the EQC for sewage discharge in this Licence. In order to derive an appropriate EQC for CBOD, Board staff looked to the BOD/CBOD Trend Analysis<sup>15</sup> submitted by the City of Yellowknife, as per their municipal Licence, MV2009L3-0007. This report illustrated that over a three-year average, CBOD values were approximately 90% of BOD values for wastewater effluent from the City of Yellowknife's Sewage Treatment Facilities. Therefore, Board staff recommend an EQC of 330 mg/L CBOD.

Both the pH and oil and grease criteria in Part D, item 7 are typical of EQC for municipal sewage discharge in water licenses issued by the Board.

The EQC in the existing Licence MV2006L3-002 for fecal coliforms will remain:  $1 \times 10^5/100\text{mL}$ . No specific recommendations for a change in the fecal coliform EQC were raised during the review period.

Part D, item 8 ensures that the Hamlet meets the EQC defined in Part D, item 7 prior to discharging from the Sewage Disposal Facilities

Part D, item 9 was included due to concerns raised by ECCC<sup>16</sup> during the review, and ensures best practices in the management of lagoon sludge removal.

#### Solid Waste Disposal Facilities

Part D, items 11, 14, and 20 are typical conditions required of municipal licensees by the Board and are indicative of best practices for solid waste management.

Part D, items 12 through 17 address issues of what wastes are accepted and how they should be managed at the Solid Waste Disposal Facilities (SWDF). During the review process, ENR recommended better controlled access and waste stream management with clearly defined waste segregation areas at the Construction and Household/Municipal Hazardous Waste Areas, including signage for waste types and associated waste segregation areas<sup>17</sup>. Part D, item 12 requires the creation and maintenance of waste segregation areas for various types of waste including construction and hazardous waste to the satisfaction of the Inspector. Part D item 13 requires the development and installation of signage to promote the proper segregation of waste within one year of issuance. In response to a question about current practice for hydrocarbon contaminated soil from residential fuel spills during the review, the Hamlet stated that no hydrocarbon contaminated soil from residential fuel spills has been accepted in the past five years<sup>18</sup>. Part D, item 16 was included to prohibit the acceptance of hydrocarbon contaminated soil from all sources, including residential, unless written authorization from the Inspector has been obtained.

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<sup>14</sup> Wastewater System Effluent Regulations, SOR/2012-139, Minister of Justice, Canada.

<sup>15</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for the City of Yellowknife, MV2009L3-0007, MV2009L3-0007 - City of Yellowknife - BOD and CBOD Study and SNP Proposal, May 2016.

<sup>16</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #9.

<sup>17</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ENR, Comment #6.

<sup>18</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, MVLWB-Miki Ehrlich, Comment #7.

Part D, items 18 and 19 were added due to reviewer concern<sup>19</sup> with areas of standing water at the SWDF. The existing Operation and Maintenance Plan<sup>20</sup> notes that, “When water is present at the bottom of the domestic and construction waste pits, Hamlet employees have been taking samples and then pumping it out and discharging it onto adjacent land, to the satisfaction of the Inspector.” In order to formalize this process and regulate the discharge of this waste, this Licence MV2016L3-0001 requires testing of the material, recommending a discharge location and written permission from the Inspector prior to discharge. The Hamlet is also encouraged to improve landfilling practices to reduce the amount of standing water to eliminate the need to discharge. Discharge criteria for this ponded water at the Solid Waste Facilities have not been included in Licence MV2016L3-0001; however, based on the quality and volumes reported moving forward, future renewals and amendments to this Licence should consider the establishment of discharge criteria.

Part D, item 22 requires the submission of an Action Plan to address capacity issues at the Solid Waste Disposal Facilities within one year of issuance. The *Solid Waste Site Preliminary Evaluation, Fort Providence, NT* (Dillon Consulting Ltd., November 25, 2011) was submitted on May 30, 2012 as an information item to the previous Water Licence MV2006L3-0002. This report stated that the solid waste site is quickly running out of space to store the Hamlet’s waste and that the community will require additional solid waste capacity within the next 3 to 6 years. The report recommended that the Hamlet start planning for the expansion or relocation of the existing site as it may take 3 to 5 years to complete the design and construction process. Section 4.1.1.5 of the *Operations and Maintenance Plan – Sewage and Solid Waste Facilities* (Dillon Consulting Ltd., December, 2015) that was submitted under the previous Licence MV2006L3-0002 and referred to in the application for Licence MV2016L3-0001 indicates that the current SWDF does not have the capacity to accommodate the amount of waste projected over the next 10 years. In their response to comments from ECCC<sup>21</sup>, the Hamlet indicated that they are planning to expand the solid waste site, although they did not provide further details. In their response to comments from Board staff<sup>22</sup>, the Hamlet clarified that the capacity estimate provided in the Solid Waste Site Evaluation remains unchanged.

## **Part E: Conditions Applying to Operations and Maintenance and Schedule 2**

The *Operation and Maintenance Plan – Sewage and Solid Waste Facilities* was submitted to the Board under the previous Licence MV2006L3-0002. The Board has requested standalone plans for the Solid Waste Disposal Facilities and the Sewage Disposal Facilities, which is consistent with the requirements of other municipal Licences. Resubmissions of standalone plans are required under Part E, items 2 and 3 of Licence MV2016L3-0001, and revisions should be submitted in accordance with comments and commitments made during the review process for this Application. Schedule 2 of Licence MV2016L3-0001 lists the components that should be included in Operation and Maintenance Plans for the following three facilities: Solid Waste Disposal Facilities, Sewage Disposal Facilities, and Water Treatment Plant.

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<sup>19</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #7,8, 12; MVLWB-Miki Ehrlich comment #5.

<sup>20</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2006L3-0002, Hamlet of Fort Providence Operation and Maintenance Plan - Sewage and Solid Waste Facilities, December 2015.

<sup>21</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC, Comment #10.

<sup>22</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, MVLWB, Comment #6.

### Operation and Maintenance Plan for the Solid Waste Disposal Facilities

Part E, item 2 requires the submission of an Operation and Maintenance Plan for the Solid Waste Disposal Facilities and specific requirements are further outlined in Schedule 2, item 1. These requirements are standard for municipal water licenses and are based on the Board's *Operation and Maintenance Plan Template for Municipal Water Licences: Solid Waste Facility*. Additional reporting requirements were included based on reviewer comments as follows:

- Remaining capacity/lifespan of SWDF components and progressive reclamation: included in response to a recommendation made by ECCC<sup>23</sup> during the review process.
- Additional details on surface water management: included in response to a recommendation made by ECCC<sup>24</sup> during the review process.
- Additional details on hazardous waste management: included in response to recommendations made by ECCC and ENR<sup>25</sup> during the review process.

### Operation and Maintenance Plan for the Sewage Disposal Facilities

Part E, item 3 requires the submission of an Operation and Maintenance Plan for the Sewage Disposal Facilities and specific requirements are further outlined in Schedule 2, item 2. These requirements are standard for municipal water licenses and are based on the Board's *Operation and Maintenance Plan Template for Municipal Water Licences: Wastewater (Sewage) Treatment System*. Additional reporting requirements were included based on reviewer comments as follows:

- Measures to be taken when effluent does not meet EQCs: included in response to a recommendation made by ECCC<sup>26</sup> during the review process.
- Additional details on sludge management: included in response to a comment made by ECCC<sup>27</sup> during the review process.

### Operation and Maintenance Plan for the Water Treatment Plant

Part E, item 4 of Licence MV2016L3-0001 requires the submission of an Operation and Maintenance Plan for the Water Treatment Plant and specific requirements are further outlined in Schedule 2, item 3. These requirements are standard for municipal water licenses and are based on the Board's *Operation and Maintenance Plan Template for Municipal Water Licences: Water Treatment Plant*.

During the review of the application for MV2016L3-0001, ECCC<sup>28</sup> noted that:

Testing of backwash discharge should be done to ensure that it meets the Fisheries Act requirement that any deposits to waters frequented by fishes be non-deleterious. Contingency measures should be available to manage backwash water that does not meet discharge criteria.

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<sup>23</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #10.

<sup>24</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #10.

<sup>25</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #10, ENR comment #6.

<sup>26</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #4.

<sup>27</sup> See the MVLWB ([www.mvlwb.com](http://www.mvlwb.com)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ECCC comment #9.

<sup>28</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, Hamlet of Fort Providence, ECCC Comment #2.

The application noted that the volume of backwash water is approximately 5000 L per day and the total residual chlorine concentration is 0.2 mg/L or less. Board staff noted that 0.02 mg/L in line with the *Wastewater System Effluent Regulations*<sup>29</sup>. For these reasons, the Plan shall include information on: how much waste is discharged from the Water Supply Facilities, how it will be tested for water quality, what discharge criteria will be met and what the contingency plan will be should the criteria not be met.

#### ***Part F: Conditions Applying to Construction***

Part F of the Licence addresses a variety of issues related to construction, including designs, maintenance, record-keeping, as-built drawings, notifications, and Board approval requirements.

#### ***Part G: Conditions Applying to Modifications***

Part G of the Licence contains conditions outlining when and how Modifications of the engineered structures may be authorized. The conditions also ensure that the Board and the Inspector are kept informed and have the opportunity to request more information or reject the proposed Modification. This section is closely linked to the Construction section (Part F), which houses conditions related to the design and construction of engineered structures. Part G relies on the definition of Modification, which does not include expansions, nor alterations of the purpose or function of a structure. The conditions in this section are consistent with other Licences issued by the Board.

The purpose of Part G is to streamline the process for authorizing modifications and ensure that any proposed changes that might be inconsistent with the scope or conditions of the Licence are brought to the Board's attention.

#### ***Part H: Conditions Applying to Spill Contingency Planning***

The conditions under Part H of Licence MV2016L3-0001 are standard conditions to ensure a contingency plan is in place in the event of a spill. The planning and reporting requirements in this part ensure that the Licensee has identified the lines of authority and responsibility for spill response, established reliable reporting and communication procedures, and has an action plan for spill response. The intent is to ensure that any spills are effectively controlled and cleaned up in order to prevent or minimize damage to the receiving environment.

Part H, item 2 requires the submission of a revised Spill Contingency Plan within one year of issuance. The Plan submitted with the Application is included as a section of the *Operation and Maintenance Plan – Sewage and Solid Waste Facilities* and does not contain information required by the Spill Contingency Guidelines (2007, AANDC). Reviewers noted deficiencies in this Plan in their comments<sup>30</sup>.

#### ***Part I: Conditions Applying to Closure and Reclamation and Schedule 3***

Part I of the Licence pertains to closure and reclamation of the waste disposal facilities. The general conditions are similar to those in other licences.

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<sup>29</sup> [Wastewater System Effluent Regulations](#), SOR/2012-139, Minister of Justice, Canada.

<sup>30</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial\Renewal Application, Staff Report and Comments, ENR comment #3, MVLWB-Heather Scott comment #11.



## **Annex A: Surveillance Network Program Sampling Requirements**

Annex A details the sampling and monitoring requirements related for compliance with numerous conditions and plans required by the Licence. Requirements for measuring flows, volumes, and meteorological data are based on standard water license conditions as are the reporting requirements.

The Surveillance Network Program (SNP) has been developed to collect water quality data and to build an understanding of the treatment efficacy and potential impacts of the Sewage Disposal Facilities and Solid Waste Disposal Facility. The chosen SNP station locations are as follows:

**SNP 1412-1:** This location is intended to record the volume of water used. This is typical of all municipal water licenses issued by the Board.

**SNP 1412-2:** This location was chosen to obtain data on the quality of sewage before it leaves the lagoon system and flows through the wetlands towards the Mackenzie River. The parameters chosen for this location are typical for those the Board uses to monitor sewage effluent. This SNP location is the point of compliance for the Sewage Disposal Facilities and relates to the requirements of Part D, items 7 and 8.

**SNP 1412-3:** This location was chosen to monitor the quality of raw sewage from the pump-out truck and is discontinued as the quality of sewage discharge is of concern to the Board, not the influent.

**SNP 2016-1:** This location was chosen to ascertain the level of treatment occurring between the lagoon and wetland systems and before ultimate discharge to the Mackenzie River, and was recommended by Board staff and ECCC<sup>31</sup> during the review of this Application. The data collected at this location may inform future renewals and amendments to this Licence and will also provide information to the Hamlet of the efficacy of wetland treatment, post-lagoon that can be used for facility planning. The intended location for sampling/monitoring is within the wetland area. The parameters chosen for this location include those for monitoring sewage effluent.

**SNP 2016-2 and 2016-3:** These locations were chosen to monitor ponded water in the vicinity of the Solid Waste Disposal Facility that has been noted on previous inspections<sup>32</sup>. Also, the existing Operation and Maintenance Plan<sup>33</sup> notes that “when water is present at the bottom of the domestic and construction waste pits, Hamlet employees have been taking samples and then pumping it out and discharging it onto adjacent land, to the satisfaction of the Inspector.” Therefore, the establishment of this SNP location formalizes this process and requires testing of the material, reporting the volumes that are discharged. The parameters chosen for this location are typical of those the Board uses to monitor water impacted by solid waste operations. This SNP location relates to the Licence condition outlined in Part D, item 19.

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<sup>31</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2016L3-0001, Initial/Renewal Application, Staff Report and Comments, Hamlet of Fort Providence, ECCC Comment #7,12 .

<sup>32</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2006L3-0002: [Inspection Report dated September 3, 2015](#)

<sup>33</sup> See the MVLWB ([www.mvlwb.ca](http://www.mvlwb.ca)) Online Registry for MV2006L3-0002, [Hamlet of Fort Providence Operation and Maintenance Plan - Sewage and Solid Waste Facilities, December 2015.](#)

## Conclusion

Subject to the term and conditions set out in the Licence, and for the reasons expressed herein, the MVLWB is of the opinion that the licensed undertaking for Water use and Waste disposal for municipal purposes at the Hamlet of Fort Providence 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 Northwest Territories in particular.

Water Licence MV2016L3-0001 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 of the waters and/or deposit of waste affected by the Licence. The Board will provide additional referenced material or documents if requested in writing to do so.

## SIGNATURE

Mackenzie Valley Land and Water Board



July 7, 2016

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Floyd Adlem, A/Chair

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Date