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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

Licence No: **3BM-SAN2025**

June 11, 2020

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**RE: NWB Replacement Licence No: 3BM-SAN2025**

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Dear Ms. Drummond and Mr. Roy:

Please find attached Licence No: **3BM-SAN2025** (Licence) issued to Hamlet of Sanikiluaq by the Nunavut Water Board (NWB or Board) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three (3) months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.<sup>1</sup>

Sincerely,

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Lootie Toomasie  
Nunavut Water Board  
Chair

LT/as/rqd

Enclosure: Licence No: **3BM-SAN2025**  
Comments – CIRNA

Cc: Qikiqtani Distribution List

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<sup>1</sup> Crown-Indigenous Relations and Northern Affairs (CIRNA), May 15, 2020

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## DECISION

### LICENCE NUMBER: 3BM-SAN2025

This is the decision of the Nunavut Water Board (NWB) with respect to a complete application received on March 06, 2020 for the renewal of a Water Licence made by:

### HAMLET OF SANIKILUAQ

to allow for the use of water and deposit of waste during municipal activities by the Hamlet of Sanikiluaq located within the Qikiqtani Region of Nunavut, generally located at the following geographical coordinates:

Latitude: 56°32'00" N

Longitude: 79°14'00" W

## DECISION

After having been satisfied that the application is outside of an area with a applicable regional Land Use Plan, and exempt from the requirement for screening by the Nunavut Impact Review Board (NIRB) under section 12.4.3 of the *Nunavut Agreement* as per Nunavut Planning Commission (NPC) November 08, 2019<sup>2</sup>, the NWB decided that the application could proceed through the regulatory process. In accordance with s. 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act)* and Article 13 of the *Nunavut Agreement*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

**Licence No: 3BM-SAN1520 will be replaced by Licence No: 3BM-SAN2025 subject to the terms and conditions contained therein. (Motion #: 2020-B1-013)**

Signed this 11<sup>th</sup> day of June, 2020 at Gjoa Haven, NU.

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Lootie Toomasie  
Nunavut Water Board, Chair

LT/as/rqd

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<sup>2</sup> Nunavut Planning Commission (NPC) Conformity Determination, November 08, 2019

## I. BACKGROUND

The Hamlet of Sanikiluaq is located on the North end of Flaherty Island, a large central island of the Belcher Islands in Hudson Bay. This Community is the southernmost community in Nunavut, about 150 kilometres off the west coast of Nunavik, Quebec and located in the Qikiqtani (Baffin) Region of Nunavut.

The Hamlet of Sanikiluaq is responsible for the supply of portable water, and the disposal of sewage waste and other waste generated by the community. These facilities are currently operating under Licence No: 3BM-SAN1520 Type “B” which expired on May 13th, 2020. The Hamlet of Sanikiluaq operates the water supply facility which draws freshwater from Sanikiluaq Lake situated near the edge of the community. The sewage disposal facility consists of a natural ditch serving as the lagoon for storing the waste water and is located 2.9 km from the community.

## II. PROCEDURAL HISTORY

On **March 06, 2020**, the Hamlet of Sanikiluaq submitted a renewal Water Licence Application (Application). The following documents were submitted by the applicant:

- Hamlet Authorization Letter
- Water Licence Application
- Inuinnaqtun and English Summaries
- GN-CGS Forwarding Letter
- NPC Conformity Determination
- Plan for Compliance
- Annual Report 2019
- Lab results for Drinking Water, WTP and Wastewater

On **April 23, 2020**, the NWB concluded that the Application generally met the requirements of section 48(1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA or Act) and forwarded notice of the Application to interested parties. All parties were invited to make representations to the NWB within twenty-one (21) days by **May 14, 2020**. After the deadline for comments elapsed, submissions were received from Crown Indigenous Relations and Northern Affairs (CIRNA) on May 15, 2020. The applicant’s responses to CIRNA comments were received on May 19, 2020.

The NWB has placed in its Public Registry copies of the Application and all comments received from interveners. This information can be accessed on the NWB’s FTP site using the following link:

<ftp://ftp.nwb-oen.ca/registry/3%20MUNICIPAL/3B/3BM%20-%20Municipality/3BM-SAN2025/>

### III. FILE HISTORY

According to information included on the NWB's FTP site, three licences have been issued by the Nunavut Water Board (NWB) to the Hamlet of Sanikiluaq in the past for its Municipal undertaking.

#### Licences Issued by the Nunavut Water Board

- On November 28, 2003, the Nunavut Water Board ("NWB" or "Board") issued Type "B" Water Licence NWB3SAN0308 to the Hamlet of Sanikiluaq for the use of 34,000 cubic metres of water per year and the deposit of Waste generated by the Hamlet. Licence NWB3SAN0308 expired on November 15, 2008, at which time no renewal application had been submitted.
- On February 28, 2012, the NWB issued Type "B" Water Licence 3BM-SAN1214 to the Hamlet of Sanikiluaq for the use of 40,000 cubic metres of water per year and the deposit of Waste generated by the Hamlet. Licence 3BM-SAN1214 expired on March 1, 2014.
- On May 14, 2015, the NWB issued Licence No: 3BM-SAN1520 Type "B" to the Hamlet of Sanikiluaq for the use of 40,000 cubic metres of water per year and deposit of waste generated. This licence expired on May 13, 2020.

### IV. GENERAL CONSIDERATIONS

The following sections provide background information relevant to the terms and conditions included in this Licence, in the context of submissions received and/or the Board's rationale.

#### Term of the Licence

In accordance with s. 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA or Act), the NWB may issue a licence for a term not exceeding twenty-five (25) years. In determining an appropriate term for a renewal licence, the Board generally takes into consideration several factors including interveners' comments, the Licensee's compliance history, as well as the rationale contained in the Application.

The Licensee requested in its Application, a five (5) year term for the licence. The Board, in examining the compliance history of the licensee, felt that a 5 year term would give the Applicant time to address outstanding issues and submit required documents for the undertaking. The Board has therefore granted the term requested by the Licensee. In so doing, the Board believes and expects that the **five-year term** will provide the Licensee with significant opportunities to abide

by the terms and conditions in the Licence and provide ongoing compliance records prior to a need for renewal.

### Annual Reports

Under Part B, Item 1 of the Licence, the Licensee is required to submit Annual Reports for the purpose of ensuring that the NWB has an accurate annual update of municipal activities related to Water use and Waste disposal during each calendar year. This information is maintained on the Public Registry and is available to interested parties upon request. A “Standardized Form for Annual Reporting” is to be used by the Licensee and is available from the NWB file transfer protocol (FTP) site under the Public Registry link at the NWB Website:

<ftp://ftp.nwb-oen.ca/other documents/Standardized Forms/>

### Water Supply Facility

The Hamlet obtains its freshwater supply from Sanikiluaq Lake. The Licensee had requested 42,112 cubic metres of water for the new term of the Licence but CIRNA suggested that the requested quantity of water may not be enough by 2025. The increase in water use over the last 5 years was 30% and by applying this to the next 5 years, the annual water use would be 55,000 cubic metres approximately. Therefore the NWB has taken CIRNA’s recommendation and increased the annual water quantity to 55,000 cubic metres per annum.

Windy Lake was being considered as a secondary water source to address high sodium concentrations of Sanikiluaq Lake in the 2016 and 2017. The Applicant expressed difficulties in accessing Windy Lake and informed that maintaining access to the lake was proving to be very expensive, therefore at this stage Windy Lake is not being considered as a secondary water source.

### Sewage Disposal Facility

The Sewage lagoon is a natural ditch (serving as a Sewage Lagoon) used for storing the wastewater. This is a non-engineered facility located about 2.9 km from the community. All sewage is collected and transported by trucks to the sewage lagoon for treatment. The approximate capacity of the sewage lagoon is about 21,600 cubic metres, which is half of the annual water use volume and results in uncontrolled discharge of sewage throughout the year.

The Lagoon overflows naturally to the Wetland Treatment Area (WTA). After flowing through the WTA, the effluent meets and mixes with a natural stream, and then the combined effluent flows toward Eskimo Harbour, a part of Hudson Bay, located at about 1 km from the lagoon.

The Hamlet has attempted to build a new sewage lagoon. This project was put on hold in 2015 due to the then new Transport Canada Regulations. The Hamlet has continued to use the existing facility since then, and is looking for capital funding to improve the sewage treatment facility in the near future. The proposed location of the new sewage lagoon is approximately 500 m west of the existing lagoon.

### Solid Waste Disposal Facility

The Solid Waste Disposal Facility is located adjacent to the Sewage Disposal Facility. The facility includes a generic landfill area of 43,560 m<sup>2</sup>, a bulky metals disposal area and a hazardous waste storage area of 3,422 m<sup>2</sup>. The condition of the Solid Waste Disposal Facility continues to deteriorate and requires improvements. The following issues exist:

- The facility is non-engineered, partially fenced and unlined
- The leachate flows uncontrolled
- The Hazardous Waste is deposited in containers which are unsealed and unlabeled
- The Burn and Cap area had a burn cage which was demolished due to roof collapse
- Improper installation of fencing has left approximately 1 meter gap at the bottom of the fence, which allows windblown garbage to migrate outside of the fence
- Hazardous Waste section is exposed to the elements with no berm to limit any migration of leaks
- Multiple pools of water surround the Hazardous Waste Area and show signs of leaks and spills that appear to be migrating down slope

The Hamlet has stated that they are planning to repair the damaged fencing around the waste disposal site. They have also informed the NWB that a consulting firm is currently working on the feasibility study for a new waste management site. The design work will start on the new site once it is selected and supported by the Hamlet. The new site will have an independent cell to manage different types of waste, and be fenced with a control gate.

### Operation & Maintenance Plans

According to Part F, Item 1, of the expired licence, the Licensee was required to submit an updated version of the “Operation & Maintenance Manual of Water Truck Fill Station Municipality of Sanikiluaq, Vol. I and II” dated July 2011.

According to Part F, Item 3, of the expired licence, the Licensee was required to submit an updated version of the “Operation and Maintenance Plan for the Hamlet of Sanikiluaq” dated September 2014. This updated plan had to include a revised “Hazardous Waste Management Procedure” (HWMP) for the Solid Waste Facility. The revised HWMP had to include the following:

- date of issuance;



- period of cover;
- considerations related to fencing;
- considerations related to signage;
- inventory of hazardous Waste;
- hazardous Waste runoff management;
- a description of how facilities are operated and maintained and how often these tasks are performed; and
- name of the person responsible for the Facility operations.

According to Part G, Item 6, of the currently expired licence, the Licensee was required to submit a Closure and Remediation Report for the “contaminated site” which included:

- mapped GPS coordinates delineating the extents of the disposal areas (metal waste site, landfill site and unauthorized disposal site) referred to in Figure 2 of the Solid Waste Operation and Maintenance Plan; and
- a work plan to assess, close and remediate the unauthorized disposal areas.

These documents were to be submitted within 90 days from the date of issue of the currently expired Licence. The Board has not received these documents to date.

During the technical review, the Applicant was reminded of these outstanding issues. CIRNA recommended the applicant provide updated plans and requested plan prior to a renewed licence being issued. The Applicant has explained not being able to submit the plans due to technical difficulties and current travel restrictions and has suggested to submit them within 4 months of issue of this Licence.

### Spill Contingency Plans

The Licensee had not submitted a Spill Contingency Plan (SCP) for the Water Supply Facility. So the Board had requested the Licensee to submit for Board review, (90) days from the date of issuance of the expired Licence, an updated O&M Manual for the Water Truck Fill Station (Part F, Item 1) including a SCP for the Water Supply Facility. The chemicals handled and stored in the Facility for Water treatment and other uses make such Plan necessary. This plan has not been submitted to date.

### Abandonment and Restoration Plans

Part G, Item 1 of the expired Water Licence 3BM-SAN1520 required the Licensee to submit to the Board for approval an Abandonment and Restoration Plan at least six months prior to abandoning any facilities and the construction of new facilities to replace existing ones. This has been carried over to the current Licence.

The Applicant has indicated that the Hamlet is planning to build a new sewage lagoon. The existing lagoon will be abandoned once the new lagoon is built and commissioned. Following this, the Board wants to emphasize the necessity of proper site reclamation every time a facility is abandoned. Under Part G, Item 1 of the renewal Water Licence, the Board has included the requirement to submit to the Board for approval in writing, an Abandonment and Reclamation Plan, at least six (6) months prior to abandoning any facilities related to Water and Waste management, or upon submission of the final design drawings for the construction of new facilities to replace existing ones.

### Monitoring Program

Under Part H, Item 1 the Board has reaffirmed all of the monitoring locations required under the expired licence.

As per Part H, Item 11 of the expired Water Licence the Hamlet was required to submit to the Board a Quality Assurance / Quality Control (QA/QC) Plan. The QA/QC plan was required to be accompanied by approval letter from an accredited laboratory or Analyst confirming acceptance of the Plan. This plan has not been submitted to date.

Under Part H Item 12 of the Licence, the Board has reaffirmed the requirement to submit a QA/QC Plan for Board review within ninety (90) days following the issuance of the Licence, and to include an endorsement letter from a certified laboratory.



# NUNAVUT WATER BOARD

## WATER LICENCE

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**Licence No: 3BM-SAN2025**

Pursuant to the Nunavut Waters and Nunavut Surface Rights Tribunal Act and the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

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**HAMLET OF SANIKILUAQ**

(Licensee)

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**P.O. BOX 157, SANIKILUAQ, NUNAVUT X0A 0W0**

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water or dispose of waste for a period subject to restrictions and conditions contained within this Licence renewal:

Licence Number/Type: **3BM-SAN2025 TYPE "B"**

Water Management Area: **HUDSON BAY ISLAND WATERSHED (16)**

Location: **QIKIQTANI REGION, NUNAVUT**

Classification: **MUNICIPAL UNDERTAKING**

Purpose: **DIRECT USE OF WATER AND DEPOSIT OF WASTE**

Quantity of Water use not to Exceed: **55,000 CUBIC METRES *PER* ANNUM AT MAXIMUM RATE OF 299 CUBIC METRES *PER* DAY**

Effective Date: **JUNE 11, 2020**

Expiry of Licence: **JUNE 10, 2025**

This Licence renewal, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

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**Lootie Toomasie,  
Nunavut Water Board, Chair**

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

### **1. Scope**

This Licence allows for the use of Water and the deposit of Waste for a Municipal undertaking classified as per Schedule 1 of the *Regulations* at the Hamlet of Sanikiluaq, located within the Qikiqtani Region of Nunavut.

- a. 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 *Nunavut Waters and Nunavut Surface Rights Tribunal 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 subject to such requirements; and
- b. 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**

“**Act**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

“**Amendment**” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

“**Board**” means the Nunavut Water Board established under the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Effluent**” means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond, lagoon (including wetland), landfill or a treatment plant;

“**Engineer**” means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2d* the

*Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12;*

**“Final Discharge Point”** in respect of an effluent means an identifiable discharge point of a facility beyond which the operator of the facility no longer exercises control over the quality of the Effluent;

**“Freeboard”** means the vertical distance between water line and the designed maximum operating height on the crest of a dam or dyke’s upstream slope;

**“Geotechnical Engineer”** means a professional engineer registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization with the engineering properties of earth materials in dealing with man-made structures and earthworks that will be built on a site. These can include shallow and deep foundations, retaining walls, dams, and embankments;

**“Grab Sample”** means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;

**“High Water Mark”** means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);

**“ICP Scan”** means the laboratory method for determining trace metals in leachate or Water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);

**“Inspector”** means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

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

**“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;

**“Monitoring Program”** means a monitoring program established to collect data on surface water and groundwater quality to assess impacts to the freshwater aquatic environment of an appurtenant undertaking;

**“Nunavut Agreement”** means the *“Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada”*, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

**“Regulations”** means the *Nunavut Waters Regulations SOR/2013-69 18th April, 2013*;

**“Secondary Containment”** means an impermeable structure, external to and separate from primary containment, which prevents unplanned spills of hazardous materials and provides a minimum capacity of 110% of the original vessel. Where multiple vessels are stored within the containment, it must provide a minimum capacity equal to the sum of the largest vessel and 10% of the aggregate volume of all other vessels located in the containment. This structure shall also provide containment and control of hoses and nozzles;

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

**“Sewage Disposal Facility”** means the Facility designed for the disposal of toilet wastes and greywater, as described in the Operation and Maintenance Manual for the Existing Sewage Lagoon, dated September 2014;

**“Solid Waste Disposal Facility”** means the area comprised of, and the associated structures designed to contain solid Waste as described in the Solid Waste Operation and Maintenance Plan, dated September 2014;

**“Spill Contingency Plan”** means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

**“Sump or Sumps”** A structure or depression that collects, controls, and filters liquid waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid waste;

**“Waste”** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

**“Waste Disposal Facilities”** means all facilities designated for the disposal of Waste, and includes the Sewage Disposal Facility and Solid Waste Disposal Facility (including the bulk metal, Hazardous Waste and wood disposal Area), as described in the Application for Water Licence renewal filed by the Applicant in September 15, 2014;

**“Water” or “Waters”** means waters as defined in section 4 of the *Act*; and

**“Water Supply Facility”** means the Facility which comprehends the rehabilitated Water Intake Facility and the Water Treatment System, as described in the document entitled “Design Brief, Sanikiluaq Truck Fill Station” prepared by Trow Associates, dated May

2010 and in the O&M Manual Water Truck Fill Station, dated July 2011 submitted with the previous Renewal Application on September 15, 2014, and illustrated in Drawings E1 and E2 (electrical); M1, M2, M3, M4, M5, M6, M10, M11 (mechanical); C1, C2, C3, C4 (civil); S1, S2, S3, S4 and S5 (structural) prepared by Trow Associates;

**“Wetland Treatment Area (WTA)”** comprises the area of land between the Sewage Disposal Facilities and final point of discharge to the natural environment, which is saturated as a result of the Sewage lagoon discharge, and functions to help process Sewage.

### **3. Enforcement**

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

## **PART B: GENERAL CONDITIONS**

1. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31 of the year following the calendar year being reported, containing the following information:
  - a. Tabular summaries of all data generated under the “Monitoring Program”;
  - b. Monthly and annual quantities in cubic metres of fresh Water obtained at the Water Supply Facility and/or for all purposes under the licence;
  - c. Monthly and annual quantities in cubic metres of all Waste discharged;
  - d. A summary of any open burning undertaken under Part D, Item 8, including quantity and details of the waste being burned, along with photographic evidence of site cleanup;
  - e. Summary of modifications and/or major maintenance work carried out on the Water Supply Facility and Waste Disposal Facilities, including all associated structures;
  - f. A list of unauthorized discharges and summary of follow-up action taken;
  - g. A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - h. Any Addendum with updates or revisions for manuals and plans (including *Operations and Maintenance Manuals/Plans*) as required by changes in operation and/or technology;
  - i. A summary of any studies or reports requested by the Board that relate to the use of

- Water and Waste disposal or restoration, and a brief description of any future studies planned; and
- j. Any other details on Water or Waste deposit requested by the Board by November 1 of the year being reported.
2. The Licensee shall comply with the “Monitoring Program” described in this Licence, and any amendments to the “Monitoring Program” as may be made from time to time, pursuant to the conditions of this Licence.
  3. The “Monitoring Program” and compliance dates specified in the Licence may be modified at the discretion of the Board in writing.
  4. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
  5. The Licensee shall install flow meters or other such devices, or implement other such methods as approved by the Board in writing, for the measuring of water volumes as required under Part H.
  6. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
  7. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
  8. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
  9. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and condition imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
  10. The Licensee shall ensure a copy of this Licence is maintained at the Municipal Office at all times. Any communication with respect to this Licence and any notice provided to an Inspector, shall be made in writing to the attention of:

(a) **Manager of Licensing:**  
Nunavut Water Board  
P.O. Box 119



Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369  
Email: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**(b) Inspector Contact:**  
Manager of Field Operations, CIRNA  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4295  
Fax: (867) 979-6445

11. The Licensee shall submit one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut and Inuinnaqtun.
12. The Licensee shall ensure that all document(s) and correspondence submitted by the Licensee to the Board are received and acknowledged by the Manager of Licensing.
13. This Licence is not assignable except as provided in Section 44 of the Act.

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

1. The Licensee shall obtain all fresh water processed by the Water Supply Facility and for all purposes under this Licence from Sanikiluaq Lake.
2. The annual quantity of Water used for all purposes shall not exceed fifty-five thousand (55,000) cubic metres, at a maximum daily withdrawal rate that shall not exceed two hundred and ninety-nine (299) cubic metres.
3. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.
4. The Licensee shall not remove any material from below the ordinary High Water Mark of any water body unless otherwise approved by the Board in writing.
5. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
6. The Licensee shall implement sediment and erosion control measures, prior to and during operations, to prevent entry of sediment into Water.

7. The Licensee shall submit to the Board for approval in writing, at least thirty (30) days prior to the use of Water in sufficient volume that the source water body may be drawn down, the following information: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.

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

1. The Licensee shall direct all Sewage generated by its undertaking to the Sewage Disposal Facility included under the scope of this licence.
2. The Licensee shall provide a minimum of ten (10) days' notice to an Inspector of the intent to discharge Effluent from the Sewage Disposal Facility.
3. All Effluent discharged from the Sewage Disposal Facility at Monitoring Program Station SAN-4 shall be measured for the parameters listed under this term and shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of Any Grab Sample
pH	between 6 and 9
BOD <sub>5</sub>	120 mg/L
Total Suspended Solids	180 mg/L
Fecal Coliforms	1 x 10 <sup>6</sup> CFU/100mL
Oil and grease	No visible sheen

4. The Licensee shall maintain at all times, a freeboard of at least 1.0 metre, or as recommended by a qualified Geotechnical Engineer and as approved by the Board in writing, for all dams, dykes or other structures intended to contain, withhold, divert or retain Water or Waste.
5. The Sewage Disposal Facility shall be maintained and operated in such a manner as to prevent structural failure.
6. The Licensee shall manage all solid Waste generated by its undertaking and/or disposed of at the Solid Waste Disposal Facility in accordance with acceptable standard and practices.
7. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.
8. The Licensee shall provide a minimum of ten (10) days' notice to an Inspector, of the intent to open-burning municipal waste in accordance with the Government of Nunavut's *Environmental Guideline for the Burning and Incineration of Solid Waste* (Revised 2012),

at the designated location at the Solid Waste Disposal Facility, including the details of the types and quantity of waste to be burned, proposed dates, protocols to be followed, ultimate disposal of residual ash and the person responsible for the activity.

9. The Licensee shall segregate and store all hazardous materials and/or hazardous Waste within the Solid Waste Disposal Facility in such a manner as to prevent the deposit of deleterious substances into any Water, until such a time that the materials have been removed for proper disposal at an approved facility.
10. The Licensee shall, implement measures to ensure Hazardous Waste and/or leachate from the Solid Waste Disposal Facility does not enter Water.

**PART E: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION**

1. The Licensee shall submit to the Board for review, for construction design drawings stamped by a qualified Engineer, sixty (60) days prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain Water or Waste.
2. The Licensee may, without written approval from the Board, carry out modifications to the Water Supply Facility 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 of such proposed modifications at least sixty (60) days prior to beginning the modifications;
  - b. these modifications do not place the Licensee in contravention of 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 review of the proposal will require more than sixty (60) days; and
  - d. the Board has not rejected the proposed modifications.
3. The Modifications for which all of the conditions referred to in Part E, Item 2, have not been met, may only be carried out upon written approval from the Board. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.
4. The Licensee shall, within ninety (90) days of completion of Modification or Construction of facilities and/or infrastructure associated with the project, submit to the Board a Construction Summary Report along with stamped as-built plans and drawings, providing explanation to reflect any deviations from the issued for construction drawings, taking into account construction and field decisions and how they may affect the performance of engineered facilities.

5. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
6. The Licensee shall implement and maintain sediment and erosion control measures prior to and during activities carried out under this Part, to prevent negative impacts to Water resulting from the release of sediment and to minimize erosion.

**PART F: CONDITIONS APPLYING TO OPERATIONS AND MAINTENANCE**

1. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, an updated “Operation and Maintenance Manual of Water Truck Fill Station Municipality of Sanikiluaq, Vol. I and II” O&M Manual.
2. The Licensee shall submit to the Board, for review, within ninety (90) days from the date of issuance of this Licence, an updated Solid Waste Facility O&M Plan. The updated Plan shall include a revised “Hazardous Waste Management Procedure” (HWMP) for the Solid Waste Facility. The revised HWMP shall include but not be limited to the following:
  - a. Date of issuance;
  - b. Period of cover;
  - c. Considerations related to fencing;
  - d. Considerations related to signage;
  - e. Inventory of hazardous Waste;
  - f. Hazardous Waste runoff management;
  - g. A description of how facilities are operated and maintained and how often these tasks are performed; and
  - h. Name of the person responsible for the Facility operations.
3. The Licensee shall submit to the Board for review, within ninety (90) days from the date of issuance of this Licence, a Spill Contingency Plan (SCP) for the Water Supply Facility, prepared in the format set out by the Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93, the SCP shall include a detailed description of the secondary system employed to prevent spills.
4. An inspection of all engineered facilities related to the management of water and waste shall be carried out by an Engineer (Civil, Municipal or Geotechnical) annually and before commissioning of any facilities. The Engineer’s report shall be submitted to the Board within sixty (60) days of the inspection, including a Cover Letter from the Licensee outlining an implementation plan addressing each of the Engineer’s recommendations.
5. The Licensee shall perform more frequent inspections of the engineered facilities at the request of the Inspector.

6. The Licensee shall, during the term of this Licence, undertake the following activities in addition to any other required action should an unauthorized discharge of waste occur or if such a discharge is foreseeable:
  - a. Employ the appropriate contingency measures as approved under the Spill Contingency Plan for the Hamlet of Sanikiluaq;
  - b. Report the incident immediately via the NWT/NU 24-Hour Spill Reporting Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. Submit to the Inspector, a detailed report on each occurrence, not later than thirty (30) days after initially reporting the event, that provides the necessary information on the location (including the GPS coordinates), initial response action, remediation/clean-up, status of response (ongoing, complete), proposed disposal options for dealing with contaminated materials and preventative measures to be implemented.
7. The Licensee shall, in addition to Part F, Item 6, regardless of the quantity of releases of harmful substances, report to the NWT/NU 24-Hour Spill Line if the release is near or into a Water body.

**PART G: CONDITIONS APPLYING TO ABANDONMENT, RESTORATION AND CLOSURE**

1. The Licensee shall submit to the Board for approval an *Abandonment, Restoration and Closure Plan* at least six (6) months prior to abandoning any facilities or upon submission of the final design drawings for the construction of new facilities to replace existing ones. Where applicable, the Plan shall include information on the following:
  - a. water intake facility;
  - b. the water treatment and waste disposal sites and facilities;
  - c. petroleum and chemical storage areas;
  - d. any site affected by waste spills;
  - e. leachate prevention;
  - f. an implementation schedule;
  - g. maps delineating all disturbed areas, and site facilities;
  - h. consideration of altered drainage patterns;
  - i. type and source of cover materials;
  - j. future area use;
  - k. hazardous wastes; and
  - l. a proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment.
2. The Licensee shall complete all restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.

3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
4. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
5. Areas that have been contaminated by hydrocarbons shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, January 2002. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
6. The Licensee shall submit to the Board for review, within ninety (90) days of issuance of this Licence, a Closure and Remediation Report for the "contaminated site" including:
  - a. Mapped GPS coordinates delineating the extents of the disposal areas (metal waste site, landfill site and unauthorized disposal site) referred to in Figure 2 of the Solid Waste Operation and Maintenance Plan; and
  - b. A work plan to assess, close and remediate the unauthorized disposal areas.

## **PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

1. The Licensee shall maintain Monitoring Program Stations at the following locations:

Monitoring Station ID	Description	Status
SAN-1	Raw Water Supply Intake at Sanikiluaq Lake	Active (Volume)
SAN-2	Runoff from the Final Discharge Point of the Solid Waste Disposal Facility	Active (Quality)
SAN-3	Raw Wastewater at truck offload point (existing drop-off point)	Active (Quantity)
SAN-4	Effluent discharge from the Final Discharge Point of the Sewage Disposal Facility	Active (Quantity) (Quality)
SAN-5	Runoff from the Unauthorized Disposal Area, before entering the Sewage Lagoon	Active (Quality, New)

2. The Licensee shall measure and record, in cubic metres, the daily, monthly, and annual quantities of Water extracted for all purposes at Monitoring Program Station SAN-1.
3. The Licensee shall measure and record in cubic metres, the daily, monthly and annual quantities of raw sewage offloaded from trucks at Monitoring Program Station SAN-3.
4. The Licensee shall measure and record in cubic metres, when flow is occurring, the monthly and annual quantities of Effluent discharged from SAN-4.
5. The Licensee shall sample at SAN-4, a minimum of three (3) times annually, once upon commencing discharge, once half-way through discharge and once just prior to the end of discharge.
6. All Samples obtained at SAN-4 shall be analyzed for the following parameters:
 

Biological Oxygen Demand (BOD5)	Fecal Coliforms
pH	Conductivity
Total Suspended Solids	Oil and Grease (visual)
Nitrate-Nitrite	Ammonia Nitrogen
Chloride	Sulphate
Sodium	Potassium
Magnesium	Calcium
Total Hardness	Total Alkalinity
Total Arsenic	Total Aluminum
Total Cadmium	Total Chromium
Total Cobalt	Total Iron
Total Copper	Total Manganese
Total Lead	Total Nickel
Total Mercury	Total Zinc
Total Organic Carbon (TOC)	
7. The Licensee shall measure and record the annual quantities of sludge removed from the sewage lagoon, along with the methods of storage, treatment and disposal. This information shall be included in the Annual Report.
8. The Licensee shall sample for Water quality analysis at Monitoring Stations SAN-2 and SAN-5 once per month in June, July and August during periods of observed flow. Samples shall be analyzed for the parameters listed in Part H Item 6, as well as Total Petroleum Hydrocarbons.
9. The Licensee shall conduct all sampling, sample preservation, and analyses in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by a certified laboratory.
10. All sampling, sample preservation, and analyses shall be conducted in accordance with

methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.

11. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
12. The Licensee shall submit to the Board for review, within ninety (90) days of the issuance of the Licence, a Quality Assurance/Quality Control Plan based on the guidance document *Quality Assurance (QA) and Quality Control (QC) Guidelines For Use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QAQC Plan* INAC (1996). The Plan shall include a covering letter from an accredited laboratory confirming acceptance of the Plan for the monitoring and analyses to be performed under the Licence and shall meet the standards set out in Part H, Item 9 and Part H, Item 10 of the Licence.
13. The Licensee shall include all of the data and information required by the Monitoring Program, as required under Part B, Item 1, or as requested by an Inspector.
14. Modifications to the Monitoring Program may be made only upon written approval from the NWB. Requests for changes to the Monitoring Program should be forwarded to the NWB in writing, and should include the justification and appropriate evidence to support the change.
15. Additional monitoring stations, sampling and analysis may be requested by an Inspector.