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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

**File No.: 1BR-CST1723**

March 23, 2017

Joshua Foster, Project Manager  
Kitnuna Environmental Ltd.  
P.O. Box 92, 10 Omilik Road  
Cambridge Bay, NU X0B 0C0

Email: [jfoster@kblenv.com](mailto:jfoster@kblenv.com)

**RE: NWB Water Licence No. 1BR-CST1723**

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Dear Mr. Foster:

Please find attached Licence No. **1BR-CST1723** issued to Kitnuna Environmental Ltd. (KEL) by the Nunavut Water Board (NWB) 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 deposit 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 deposit 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 any application 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 from interested persons on issues identified. This information is attached for your consideration.<sup>1</sup>

Sincerely,

*Draft*

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Thomas Kabloona  
Nunavut Water Board  
Chair

TK/sj/ri

Enclosure: Licence No. **1BR-CST1723**

Comments: **INAC, and ECCC**

Cc: Kitikmeot Distribution List

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<sup>1</sup> Indigenous and Northern Affairs Canada (INAC), January 12, 2017, and Environment and Climate Change Canada (ECCC), January 12, 2017.

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## **A. INTRODUCTION**

In November 2016, Kitnuna Environmental Ltd. (KEL) applied to the Nunavut Water Board (NWB or Board) for a six – year, Type “B”, water licence to deposit waste in support of the construction and operation of the proposed Cambridge Bay Soil and Water Treatment Facility. The Facility, which will be located approximately 700 metres northwest of the Hamlet of Cambridge Bay and adjacent to the Hamlet’s Sewage Lagoon Facility, will consist of the following cells:

- Cell 1 – Design area of approximately 1,625 m<sup>2</sup>; to be used to treat contaminated soil;
- Cell 2 – Design area approximately 158 m<sup>2</sup>; to be used for the storage of used drums; and
- Cell 3 – Design volume approximately 170 m<sup>3</sup>; to be used for storing contaminated water/snow.

Based on the design specifications for the Cambridge Bay Soil and Water Treatment Facility, all of the cells associated with the facility will be bermed and lined with High Density Polyethylene and geotextile impermeable liners. Onsite equipment for the facility will include a mobile water treatment plant and water storage tanks. To monitor the effects of the facility on the receiving environment, monitoring stations will be installed up -gradient and down-gradient of the facility.

During operations, the facility is expected to treat Petroleum Hydrocarbon Contaminated Soil collected from locations within the Hamlet of Cambridge Bay, meeting the facility’s acceptance parameters. Soil accepted at the facility will be treated to meet predetermined treatment criteria prior to being appropriately disposed of. Contaminated water and/or snow will be treated using a package wastewater treatment plant and tested to ensure that the effluent meets discharge criteria prior to releasing into the receiving environment. A dedicated hazardous waste storage area will be established and used to temporarily store waste drums requiring containerization and shipment to a certified disposal facility in southern Canada.

## **B. PROCEDURAL HISTORY**

The Nunavut Water Board (NWB) received the above-mentioned application and supporting information (the Application), which consisted of the following documents, over the period December 8, 2016 – January 27, 2017:

### November 8, 2016

- Cover Letter Regarding Screening Decision Report;
- NIRB Screening Decision Report;
- NIRB Notice of Release;
- General Water Licence Application;
- Hamlet Cambridge Bay – Letter of Support;
- Certificate of Incorporation;
- Closure and Reclamation Plan, April 2016;
- Environmental Protection Plan, June 2016;
- Resolution of Directors, Feb 8 2016;
- Operations and Maintenance Plan, June 2016;

- NIRB Section 4, Non-Technical Project Proposal Description Final (Inuktitut);
- NIRB Section 4, Non-Technical Project Proposal Description Final (English);
- NPC Determination Regarding Cambridge Bay Soil and Water Treatment Facility;
- Application Cover Letter;
- Tech Information for Supplementary Information Guideline I3, Landfarm; and

#### November 24, 2016

- Spill Contingency Plan, November 2016

#### January 27, 2017

The Applicant in response to submissions from interveners provided a submission that included the following documents:

- Cover Letter, dated January 27, 2017, pertaining to KEL's Response to Intervenors' Submissions;
- *Spill Contingency Plan, Cambridge Bay Soil and Water Treatment Facility* (V.1), January 2017;
- *Operations and Maintenance Plan, Cambridge Bay Soil and Water Treatment Facility* (V.1), January 2017;
- *Environmental Projection Plan, Cambridge Bay Soil and Water Treatment Facility*, (V.1), January 2017;
- *Closure and Reclamation Plan, Cambridge Bay Soil and Water Treatment Facility*, (V.1), January 2017;
- *Emergency Response Plan, Cambridge Bay Soil and Water Treatment Facility* (V.1), January 2017; and
- *Waste Management Plan, Cambridge Bay Soil and Water Treatment Facility*, (V.1), January 2017

Following a preliminary internal review of the Application and receipt of additional information, the NWB distributed the Application on December 13, 2016, for a thirty (30) public review and comment period with the deadline for submission set for January 13, 2017.

On or before the comment deadline period ended, submissions were received from Indigenous and Northern Affairs Canada (INAC) and Environment and Climate Change Canada (ECCC). INAC in its submission provided several recommendations on a number of topics including revisions to the Operations and Maintenance Plan, management of potential windblown contaminated snow, reporting requirements, spill contingency planning, the wastewater treatment plant, and more. ECCC in its submission advised that the proponent should ensure effluent discharged from the facility respects the pollution prevention provisions of the *Fisheries Act*.

## **C. GENERAL CONSIDERATIONS**

The following sections provide general overviews of the rationale for some of the main terms and conditions included in the Licence.

### *Term of the Licence*

In accordance with s. 45 of the *Act*, the NWB may issue a licence for a term not exceeding twenty-five (25) years. The Applicant, KEL, requested a six (6) – year term for the licence,

which the Board considers consistent to that of licences issued for similar undertakings. The Board has, therefore, granted the six (6) year-term requested by the Applicant.

#### *Annual Report*

Similar to the terms and conditions generally included in all licences issued by the Board, the NWB has included under Part B, Item 1 of this Licence, requirements for the Licensee to submit to the Board, for review, prior to the 31<sup>st</sup> of March, annually, a report detailing Water use and/or Waste deposit activities for the undertaking for the preceding year in which report is filed. The Board provides public access to the information submitted in licensees' annual reports through its ftp site as well as upon request from interested parties.

The NWB has included on its website a standardized form for annual reporting that licensees can use to submit annual reporting information, supplemented by other relevant details. A copy of the NWB's generic Annual Report Form can be obtained from the NWB upon request or electronically from the NWB's FTP site using the following link:

<ftp://ftp.nwb-oen.ca/other%20documents/Standardized%20Forms/>

#### *Water Use*

The Applicant did not request any freshwater use in support of the undertaking; consequently, the Board has not authorized any water use under the provisions of the licence.

### **D. DEPOSIT OF WASTE**

The Applicant identified the following waste types as being generated or associated with the undertaking:

- Petroleum Hydrocarbon Contaminated (PHC) soil;
- Contaminated snow/water; and
- Used drums and hazardous waste.

The following sections provide an overview of the way in which the above-mentioned waste-types will be managed by the Applicant.

#### *PHC Soil*

Petroleum Hydrocarbon Contaminated (PHC) soil accepted by the facility, in accordance with relevant acceptance criteria, will be treated in a lined and bermed cell, approximately 1,625 m<sup>2</sup> in area. Once the pre-determined treatment criteria are met, the soil will be appropriately disposed of at an approved facility. Conditions related to operations of the facility are included under Part D of this Licence.

#### *Contaminated Water/Snow*

Contaminated water or snow generated by the facility or collected from spills is expected to be stored in a 170 – cubic metre cell. The cell will be bermed to ensure adequate containment for stored water and/or snow in addition to being lined with an impermeable membrane. Treatment of stored water or snow will be achieved using a package wastewater treatment plant and the effluent meeting relevant treatment criteria will be released into the receiving environment. Terms and conditions governing the quality of the effluent from the wastewater treatment

facility are included under Part D of the Licence.

#### *Drums and Hazardous Waste Storage Areas*

For the storage of drums, a 158 – square metres cell will be established, and for the storage of hazardous waste, a dedicated area will be established. Conditions pertaining to the storage of drums and hazardous waste are included under Part D of the Licence.

### **E. MANAGEMENT PLANS**

The Application included the following management plans for the Board's consideration, some of which were subsequently updated and resubmitted following initial submission, to address interveners' comments and recommendations:

- *Spill Contingency Plan, Cambridge Bay Soil and Water Treatment Facility (V.1), January 2017;*
- *Operations and Maintenance Plan, Cambridge Bay Soil and Water Treatment Facility January (V.1), 2017;*
- *Environmental Projection Plan, Cambridge Bay Soil and Water Treatment Facility, (V.1), January 2017; and*
- *Closure and Reclamation Plan, Cambridge Bay Soil and Water Treatment Facility (V.1), January 2017;*
- *Emergency Response Plan, Cambridge Bay Soil and Water Treatment Facility (V.1), January 2017*
- *Waste Management Plan, Cambridge Bay Soil and Water Treatment Facility (V.1), January 2017*

While all of the plans submitted are relevant to aspects of the undertaking and the licence to some extent, the Board has decided to approve only the plans that are most relevant to its mandate in the context of the water licence. The plans approved by the Board are addressed in the following sections:

#### *Spill Contingency Plan*

The revised Spill Contingency Plan submitted by the Applicant to address the comments/recommendations made by interveners during the public review period, for the Application, is approved under Part I, Item 1 of the Licence.

#### *Operations and Maintenance Plan*

The revised Operations and Maintenance Plan submitted by the Applicant to address the comments/recommendations made by interveners during the public review period, for the Application, is approved under Part F, Item 1 of the Licence.

#### *Waste Management Plan*

The Waste Management Plan submitted by the Applicant to address the comments/recommendations provided by interveners during the public review period for the Application is approved under Part D, Item 1 of the Licence.

#### *Closure and Reclamation*

The revised Closure and Reclamation Plan submitted by the Applicant to address the comments/recommendations made by interveners during the public review period is approved

under Part J, Item 1 of the Licence.

#### **F. DRAWINGS PLANS AND DRAWINGS**

The Applicant submitted as part of its Application, for the Board's consideration, conceptual design for the Cambridge Bay Soil and Water Treatment Facility. Consequently, the Board included requirements for submission for the Board's review and acceptance, at least thirty (30) days prior to commencing construction activities, for-construction drawings and design plans for the structures authorized in accordance with Part H of the Licence. Further, the Applicant is required to provide to the Board for review, within ninety (90) days of completion of construction activities, as-built plans and drawings that are appropriately stamped and signed by an Engineer as also stipulated under Part H of the Licence.

#### **G. MONITORING**

Consistent with measures proposed by the Applicant, the Board included conditions requiring the Licensee to establish monitoring stations and to undertake relevant monitoring required. In addition, the Licensee is required to submit to the Board for Approval, at least sixty (60) days prior to commencing the operations phase of the Project, a Monitoring Plan that includes, as a subset, a QA/QC component along with a letter from an accredited laboratory confirming that the entire plan is acceptable. This requirement is included under Part K of the Licence.



## DECISION

### LICENCE NUMBER: 1BR-CST1723

This is the decision of the Nunavut Water Board (NWB) with respect to an Application dated November 8, 2016 for a new Water Licence made by:

#### **KITNUNA ENVIRONMENTAL LTD. (KEL)**

to allow for the deposit of waste in support of the construction and operation of the proposed Cambridge Bay Soil and Water Treatment Facility, located within the boundaries of the Hamlet of Cambridge Bay, in the Kitikmeot Region, Nunavut, at the following general geographical coordinates:

Latitude: 69° 07' 44" N	Longitude: 105° 02' 46" W
Latitude: 69° 07' 44" N	Longitude: 105° 02' 27 " W
Latitude: 69° 07' 38" N	Longitude: 105° 02' 27" W
Latitude: 69° 07' 36" N	Longitude: 105° 02' 47" W – Project Extents

## DECISION

After having been satisfied that the Application is for a location that falls outside of an area with an approved Land Use Plan in place as determined by the Nunavut Planning Commission (NPC)<sup>1</sup> and exempt from review in accordance with paragraph 92(1) (a) of the Nunavut Planning and Project Assessment Act (NuPPAA) as determined by the Nunavut Impact Review Board (NIRB)<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 *NLCA*, 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 an intervening party, the NWB, having given due regard to the facts and circumstances, the merit of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

**Licence No. 1BR-CST1723 be issued subject to the terms and conditions contained therein (Motion #: 2016-B1-030).**

Signed this 23<sup>rd</sup> day of March 2017 at Gjoa Haven, NU.

*DRAFT*

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Thomas Kabloona  
Nunavut Water Board, Chair

TK/sj/ri

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<sup>1</sup> Nunavut Planning Commission (NPC) Determination, May 31, 2016.

<sup>2</sup> Nunavut Impact Review Board (NIRB) Screening Decision Report, August 26, 2016.



## NUNAVUT WATER BOARD WATER LICENCE

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### Licence No. 1BR-CST1723

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

**KITNUNA ENVIRONMENTAL LTD.**

(Licensee)

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**P.O. BOX 92, 10 OMILIK, CAMBRIDGE BAY, NU X0B 0C0**

(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:

Licence Number/Type: **1BR-CST1723 / TYPE "B"**

Water Management Area: **SOUTHERN VICTORIA ISLAND WATERSHED (#38)**

Project / Location: **CAMBRIDGE BAY SOIL AND WATER TREATMENT FACILITY PROJECT / KITIKMOET REGION, NUNAVUT**

Classification: **INDUSTRIAL UNDERTAKING**

Purpose: **DIRECT DEPOSIT OF WASTE**

Quantity of Water use not to Exceed: **WATER USE IS NOT AUTHORIZED**

Date of Licence Issuance: **MARCH 23, 2017**

Expiry of Licence: **MARCH 22, 2023**

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

*Draft:*

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**Thomas Kabloona,  
Nunavut Water Board  
Chair**

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

### **1. Scope**

This Licence allows for the deposit of Waste for an Industrial Undertaking classified as per Schedule 1 of the *Regulations* at the Cambridge Bay Soil and Water Treatment Facility Project, located within the Hamlet of Cambridge Bay in the Kitikmeot Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to 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**

In this Licence: **1BR-CST1723**

“**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 or 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*;

**“Cambridge Bay Soil and Water Treatment Facility”** means the engineered facility designed and constructed to manage petroleum hydrocarbon contaminated soil, contaminated snow/water, used drums, and hazardous material as described in the Application dated November 8, 2016;

**“Effluent”** means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond, landfarm 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.2* and 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”** means the point at which the Licensee no longer exerts care and/or control over the quality and/or quantity of the effluent from a treatment process;

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

**“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);

**“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;

**“Hazardous Waste”** means Waste classified as “hazardous” by Nunavut Territorial or Federal Legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act* at the time of clean-up;

**“Monitoring Program”** means a program established to collect data on surface Water and groundwater quality to assess impacts to the environment of an appurtenant undertaking.

**“Nunavut Land Claims Agreement (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 made pursuant to that agreement;

**“Regulations”** means the *Nunavut Waters Regulations* sor 2013/669 18<sup>th</sup> April, 2013;

**“Sewage”** means all toilet Wastes and Greywater;

**“Solid Waste”** means non-hazardous Waste;

**“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”** means an excavation in impermeable soil for the purpose of catching or storing Water or Waste;

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

**“Type A Soil”** means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of lubricating oil and grease in the F3 and F4 fraction;

**“Type B Soil”** means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline in the F1 and F2 fraction;

**“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;

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

**“Waste Management Facility”** means all facility designated for the storage and/or treatment of Waste generated by the Cambridge Bay Soil and Water Treatment Facility as described in the Application dated November 8, 2016.

### 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 laws.

## **PART B: GENERAL CONDITIONS**

1. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than the 31<sup>st</sup> of March of the year following the calendar year being reported. The Annual Report shall include but not be limited to the following information:
  - a. The monthly and annual quantities (in cubic metres) of material deposited in the on-site Waste Management Facility;
  - b. Details on the characterization of soils treated at the Waste Management Facility;
  - c. The monthly and annual quantities (in cubic metres) of any effluent discharge from the Waste Management Facility;
  - d. A summary of all waste backhauled to any community in Nunavut as required under Part D, Item 3;
  - e. The GPS co-ordinates (in degrees, minutes, and seconds of latitude and longitude) of all locations where Wastes associated with the Project are deposited;
  - f. A summary of any construction work, modification and major maintenance work (including as-built drawings) carried out on the Waste Management Facility approved under the Licence;
  - g. Tabular summaries for all data and information generated under the “Monitoring Program”;
  - h. An analysis of data collected during the “Monitoring Program” and a brief description of any future studies planned by the Licensee;
  - i. A summary of any studies requested by the Board that relate to Waste disposal, and a brief description of any future studies planned;
  - j. A list of unauthorized discharges and summary of follow-up actions taken;
  - k. If applicable, a description of any trenches and sumps excavated, including but not limited to the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
  - l. A public consultation/participation report describing any consultation with local organizations and the residents of the nearby communities;
  - m. A brief summary of work done to address concerns or deficiencies listed in inspection reports and/or compliance reports prepared by an Inspector;
  - n. An executive summary in English and in Inuktitut of all plans, reports, or studies conducted under this Licence; and
  - o. Any other details on the use of Water or deposit of Waste as requested by the Board by the 1<sup>st</sup> of November of the year being reported.
2. 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 changes.

3. The Licensee shall, where applicable, install flow meters or other such devices, or implement suitable methods required for measuring the volume of Effluent generated by the undertaking, as required under Part K, Item 2 of this Licence.
4. 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.
5. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
6. 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 conditions 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.
7. The Licensee shall, within thirty (30) days of completion of construction activities, post signs in appropriate areas identifying the locations of the Waste Management Facility, and the "Monitoring Program Stations". All postings shall be in the Official Languages of Nunavut
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. The Licensee shall ensure that a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence 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, INAC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0

Telephone: (867) 975-4295  
Fax: (867) 979-6445

10. The Licensee shall submit one paper copy and an 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.
11. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
12. This Licence is assignable as provided for in s. 44 of the *Act*.

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

1. The Licensee is not authorized to use Water under the terms and conditions of this Licence.
2. Streams or water bodies cannot be used as a Water source unless authorized and approved by the Board in writing.
3. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body unless authorized.
4. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
5. The Licensee shall implement sediment and erosion control measures to prevent the deposition of dust and/or sediment into local Water bodies, arising from activities or on-site vehicular travel.

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

1. The Board has approved the Plan entitled *Waste Management Plan, Cambridge Bay Soil and Water Treatment Facility* (V.1), dated January 2017, and submitted as additional information for the Application.
2. The Licensee shall locate areas designated for Waste Management at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any Water body such that the quality, quantity or flow of Water is not impaired, unless otherwise approved by the Board in writing.
3. The Licensee shall provide to the Board, for review, documented authorization from any community in Nunavut receiving backhauled wastes from the Cambridge Bay Soil and Water Treatment Facility Project.



4. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste and include this information within the Annual Report, under Part B, Item 1. These records shall be made available to an Inspector upon request. The Licensee shall not transport hazardous Wastes prior to registering with the Government of Nunavut as a Waste generator and utilizing the prescribed manifests.
5. The Licensee shall provide notice to an Inspector at least ten (10) days prior to initiating any decant or discharge from the Waste Management Facility.
6. The Licensee is authorized to treat Petroleum Hydrocarbon Contaminated Soil at the Landfarm cell or component of the Waste Management Facility or as otherwise approved by the Board in writing.
7. Effluent discharged from the Waste Management Facility at Monitoring Station CST-1 shall not exceed that the following discharge limits:

Parameter	Maximum Allowable Concentration
pH	6.0 to 9.0 (pH units)
TSS	50
Oil and Grease	15 mg/L and no visible sheen
Total Lead	0.001 mg/L
Benzene	0.370 mg/L
Toluene	0.002 mg/L
Ethylbenzene	0.090 mg/L
Xylenes	0.18 mg/L

8. If the Effluent referred to in Part D, Items 7 exceeds the respective discharge limits, it shall be considered Hazardous Waste requiring disposal off-site at an approved facility or as otherwise approved by the Board in writing.
9. The discharge location for all treated Effluents described in Part D, Items 7, shall be at a minimum of thirty-one (31) metres from the ordinary High Water Mark of any Water body and where direct flow into a Water body is not possible and no additional impacts created.
10. The Licensee shall provide for the proper storage, treatment, and/or disposal at an approved facility for any Hazardous Waste generated by the Project, unless otherwise approved by the Board in writing.
11. The Licensee shall dispose of any material coated with Polychlorinated Biphenyl (PCB) amended paints, hazardous materials and soils containing contaminants in excess of *Canadian Environmental Protection Act (CEPA)* Guidelines, with the exception of asbestos, off site at an approved treatment facility, in accordance with relevant regulations.

12. The Licensee shall treat petroleum hydrocarbon contaminated soils, accepted by the Waste Management Facility, to meet remedial objectives that are consistent with post-treatment use and requirements of the Government of Nunavut Guidelines or as otherwise approved by the Board in writing.

**PART E: CONDITIONS APPLYING TO THE UNDERTAKING**

1. The Licensee shall ensure that all borrow materials used in construction are obtained from sources clean and free of contaminants, including metal leaching and acid generating potential.
2. Should any constructed facilities fail, the Licensee shall repair such facilities immediately to the appropriate standards as recommended by an Engineer.
3. The Licensee shall minimize disturbance to terrain, permafrost and drainage during any extraction of granular material for the development of the Waste Management Facility.
4. The Licensee shall design and construct all stream crossings to minimize erosion and/or deposition of Waste into Water.
5. The Licensee shall ensure that existing creek channels are maintained at their normal width and depth to the extent possible, during and after any site remediation.
6. Granular materials and rock rip-rap used for any temporary stream crossings, approaches or as may be required for bank stabilization must be obtained from a source approved by an Inspector, and be clean and free of contaminants. Such material must not be removed or gathered from below the ordinary High Water Mark of any Water body.

**PART F: CONDITIONS FOR CAMP, ACCESS INFRASTRUCTURE AND OPERATION**

1. The Board has approved the Plan entitled *Operations and Maintenance Plan, Cambridge Bay Cambridge Bay Soil and Water Treatment Facility* (V.1), dated January 2017 and submitted as additional information for the application.
2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
3. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of Water, ice or snow, and shall be removed prior to spring break-up.

4. With respect to access road, pad construction, demolition or other earthworks, the deposition of debris or sediment into any Water body is prohibited. These materials shall be disposed of above the ordinary High Water Mark in such a fashion that they do not enter the Water.

**PART G: CONDITIONS APPLYING TO DRILLING OPERATIONS**

1. The Licensee is authorized to drill for the purposes of installing monitoring instrumentation, including monitoring wells and thermistors.
2. The Licensee shall not conduct any land-based drilling within thirty-one (31) metres of the ordinary High Water Mark of any Water body, unless otherwise approved by the Board in writing.
3. The Licensee shall dispose of all drill Waste, including Water, chips, muds and salts ( $\text{CaCl}_2$ ) in any quantity or concentration, from land-based drilling, in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.

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

1. Licensee shall, at least thirty (30) days prior to commencing construction activities for the facility approved under this Licence, provide to the Board for review and acceptance for-construction drawings and design plans and specifications.
2. The Licensee may, without written consent from the Board, carry out Modifications to the Waste Management Facility authorize under this Licence 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. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - c. such Modifications are consistent with the NIRB Screening Decision;
  - d. 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
  - e. the Board has not rejected the proposed Modifications.
3. Modifications for which all of the conditions referred to in Part G, Item 2 have not been

met may only be carried out with approval from the Board in writing.

4. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Part, within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

**PART I: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Board has approved the Plan entitled *Spill Contingency Plan, Cambridge Bay Soil and Water Treatment Facility* (V.1), dated January 2017, and submitted as additional information for the Application.
2. The Licensee shall ensure that any chemicals, petroleum products or Wastes associated with the project do not enter Water. All sumps and fuel caches shall be located a minimum of thirty-one (31) metres above the ordinary High Water Mark of any adjacent water body and inspected on a regular basis. The Licensee is encouraged to use some form of secondary containment on fuel and chemical storage facilities associated with this undertaking.
3. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste to contain potential spills.
4. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. Employ the approved Spill Contingency Plan;
  - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. For each spill occurrence, submit to the Inspector and the NWB, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.
5. The Licensee shall, in addition to Part I, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.

**PART J: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION OR TEMPORARY CLOSURE**

1. The Board has approved the plan entitled *Closure and Reclamation Plan, Cambridge Bay Soil and Water Treatment Facility* (V.1), dated January 2017, and submitted as additional information for the Application.

2. The Licensee shall complete all restoration work for the Waste Management Facility referenced under Part J, Item 1 of this Licence, prior to expiry of this Licence.
3. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
4. All disturbed areas shall be stabilized and re-vegetated, as required, upon completion of work, and restored as practically possible to a pre-disturbed state.
5. The Licensee shall restore and stabilize all areas affected by the undertaking upon completion of the work.

**PART K: CONDITIONS APPLYING TO MONITORING PROGRAM**

1. The Licensee shall establish and maintain at least the following Monitoring Program Stations at locations described in the Table below or as otherwise approved by the Board in writing:

<b>Monitoring Station ID</b>	<b>Description</b>	<b>Status</b>
CST-1	Final discharge point from the Waste Management Facility	Active (Volume & Quality)
CST-2	Monitoring Station located up-gradient of the Waste Management facility	Active (Volume & Quality)
CST-3	Monitoring station located down-gradient of the Waste Management Facility	Active (Volume & Quality)
CST-4	Monitoring station located down-gradient of the Waste Management Facility	Active (Volume & Quality)

2. The Licensee shall measure and record in cubic metres, the daily quantities of Effluent discharged from the Waste Management Facility associated with this Licence.
3. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with the undertaking are deposited.
4. The Licensee shall monitor compliance with respect to Part D, Items 7 by collecting a representative composite sample from a minimum of 5% of the total volume to be

released from the Final Discharge Point of the Waste Management Facility at Monitoring Program Stations CST-1.

5. The Licensee shall sample Monitoring Program Stations CST-1, CST-2, CST-3, and CST-4 and analyze the samples collected for the following parameters:

pH	Conductivity
Total Suspended Solids	Ammonia Nitrogen
Nitrate – Nitrite	Oil and Grease (visual)
Total Phenols	Sulphate
Total Hardness	Total Alkalinity
Sodium	Potassium
Magnesium	Calcium
Chloride	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel
Total Zinc	Total Phosphorous
Total Aluminum	Total Manganese
Total Cobalt	Total Arsenic
Total Petroleum Hydrocarbons (TPH)	BOD <sub>5</sub>
Polycyclic Aromatic Hydrocarbons (PAH)	Total Coliform
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	

6. 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.
7. The Licensee is required to submit, at least thirty (60) days prior to commissioning the Waste Management Facility, a Monitoring Plan that addresses monitoring as well as Quality Assurance / Quality Control (QA/QC) requirements for the Facility. The QA/QC component of the Plan should include a letter from an accredited laboratory confirming that its acceptability.
8. Additional monitoring requirements may be requested by the Inspector.
9. The Licensee shall include in the Annual Report required under Part B, Item 1, all data, monitoring results, and information required by this Part.