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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: 3BM-CAP1925

May 23, 2019

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Hamlet of Cape Dorset
P.O. Box 30
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Municipal Planning Engineer
Community Government Services
Baffin Region
P.O. Box 379
Pond Inlet, NU
X0A 0S0

Email: BRoy@gov.nu.ca

RE: NWB Replacement Water Licence No. 3BM-CAP1925

Dear John Hussey, and Bhabesh Roy:

Please find attached Licence No. 3BM-CAP1925 issued to the Hamlet of Cape Dorset 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 the use of Water and the deposit of Waste are an integral part of this approval.

If the Licensee contemplates the continuing of this Undertaking after the Water Licence expires, it is the responsibility of the Licensee to apply to the NWB for a renewal licence. 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 renewal Water Licence. Note that if the Licence expires before the NWB issues a new one, then the use of Water and the deposit of Waste must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)*. 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. It should be noted that in accordance with s. 75(1)(a) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with s. 76 of *NuPPAA*.

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 from Crown-Indigenous and Northern Affairs Canada (CIRNAC) and Environment and Climate Change Canada (ECCC) on issues identified. This information is attached for your consideration.¹

Sincerely,

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ak/ip

Enclosure: Replacement Licence No. 3BM-CAP1925

Comments – CIRNAC, ECCC

Cc: Distribution List – Qikiqtani

¹ Crown-Indigenous and Northern Affairs Canada (CIRNAC), August 16, 2018, October 4, 2018, and May 9, 2019; Environment and Climate Change Canada (ECCC), August 16, 2018.

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DECISION

LICENCE NUMBER: 3BM-CAP1925

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated May 20, 2016 for a renewal of a Water Licence made by:

HAMLET OF CAPE DORSET

to allow for the use of Water and the deposit of Waste for a Municipal Undertaking at the Hamlet of Cape Dorset located within the Qikiqtani Region, Nunavut, generally located at the geographical coordinates as follows:

Project Extents:

Latitude: 64° 14 N

Longitude: 76° 32' W

DECISION

After having been satisfied that the Application is for a proposal that falls outside of an area with an approved land use plan, and, as such, a conformity determination is not required, and is exempt from the requirements for screening as described within s. 12.4.3 / Schedule 12-1 of the *Nunavut Agreement*, 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* (NWNSRTA or *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:

Replacement Licence No. 3BM-CAP1925 be issued subject to the terms and conditions contained therein. (Motion #: 2019-B1-005)

Signed this 22nd day of May, 2019 at Gjoa Haven, NU.

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ak/ip

INTRODUCTION

The Hamlet of Cape Dorset (Hamlet or Licensee) is located on Dorset Island, near the southwest tip of Baffin Island at 64° 14' north latitude and 76° 32' west longitude. The Hamlet is situated in the Qikiqtani Region of Nunavut, approximately 402 air kilometers southwest of the city of Iqaluit.

Located in the continuous permafrost zone, Cape Dorset has a climate, which consists of short cool summers and long cold winters. Average annual snowfall and rainfall are 118 centimeters (cm) and 15 cm, respectively. The typical temperature range for January is between a low of -29°C and a high of -23°C. In July, the typical temperature range is between a low of 3°C to a high of 7°C. Freeze up typically occurs during the month of November but may occur as early as September. Spring thaw typically takes place during the month of July, but it can vary by up to two months. During spring runoff, the community experiences mild flooding.

The community is situated between two valleys of the Kinngait range of hills. Topography consists of areas of moss surrounded by rock outcrops, bedrock and steep cliffs.

The community uses trucked services for both water delivery and sewage collection. Wastewater is treated using a constructed retention-cell treatment system that is located approximately 800 meters southwest from the center of the community. As per the 2016 census, the population was 1,441.

PROCEDURAL HISTORY

The Hamlet had previously held two licences issued by the Nunavut Water Board (NWB or Board): NWB3CAP0207 and 3BM-CAP0810, the latter of which expired in March 2010. Over the years, the Hamlet submitted its water licence renewal applications with the assistance of the Government on Nunavut's Community and Government Services (GN-CGS); however, the Board and interested parties did not consider the applications complete.

The latest application was received by NWB on May 27, 2016, and supplemental information was provided in the period of June 2018 to April 2019. In addition, on April 1, 2016, NPC indicated that “[the] proposal to renew water licence #3BM-CAP0810-Type B does not require further review by the NPC or further screening by the NIRB”¹.

On July 16, 2018, NWB distributed the Application for external review. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)² and Environment and Climate Change

¹ Jonathan Savoy (NPC) to Karén Kharatyan (NWB), RE: NPC File # 148231 – Renewal Application of the Hamlet of Cape Dorset Water Licence #3BMCAP0810-Type B, dated April 1, 2016.

² CIRNAC submissions, dated August 16, 2018, October 4, 2018, and May 9, 2019.

Canada (ECCC) provided their comments in the course of the technical review³.

GENERAL CONSIDERATIONS

The Hamlet operates a water supply facility, a solid waste facility that includes metal and hazardous waste storage areas, and three sewage facilities. The sewage facilities include a three-tier sewage lagoon, an emergency sewage lagoon (which is a natural depression), and a P-Lake sewage lagoon. The P-Lake sewage lagoon was constructed in 2007 without having been approved by the Board. The unauthorized construction, as well as numerous issues with the design of the facility, led the Board to conduct a public hearing for the Type B water licence application. In March 2008, NWB granted a two-year licence to the Hamlet outlining a number of measures to be taken to ensure that the P-Lake sewage lagoon (or the 2007 Sewage Facility, as it came to be known) could function in a proper manner. Unfortunately, the facility was never commissioned, as the Hamlet and GN-CGS experienced issues with its structural integrity. As discussed above, the Hamlet remained unlicensed for many years after the expiry of the two-year licence term.

As a result of extensive discussions with the Hamlet through its representative GN-CGS and on the basis of the Application, the written materials filed with the Board, and submissions of the parties, the Board has decided to issue a Type “B” Water Licence No. 3BM-CAP1925 (the Licence) subject to the terms and conditions set out below. The Licence authorizes the Hamlet of Cape Dorset’s continued use of water and deposit of waste for a Municipal Undertaking as defined under Schedule 1 of the *Nunavut Waters Regulations* and also contains terms and conditions necessary to protect the environment and provide appropriate safeguards in respect of the undertaking in accordance with the Application.

In its decision to issue the Licence, the Board took into account the Hamlet’s commitment to construct a mechanical wastewater treatment plant and commission it in 2024⁴. In addition, the Board leaned on the commitment in determining the term of the Licence. Therefore, the Licence is granted to include the period before the plant’s planned commission plus time allowance for contingencies.

A. Scope, Definitions and Enforcement

This Licence allows for the use of Water and the deposit of Waste for a Municipal Undertaking as defined under Schedule 1 of the *Nunavut Waters Regulations*. Several definitions were added to the list of definitions for the Licence to reflect the actual status of the municipal facilities. To ensure that Licensee complies with the terms and conditions of the Licence, inspectors, designated and empowered by the Minister of Crown-Indigenous Relations and Northern Affairs

³ ECCC submission, dated August 16, 2018.

⁴ GN-CGS, PLAN FOR COMPLIANCE LICENCE NO. 3BM-CAP0810, submitted on April 5, 2019.

Canada may inspect or examine works, activities, and undertakings associated with the use of waters and/or the deposit of waste for the purposes of exercising their powers in accordance with the *NWNSRTA*.⁵ The Licensee should note that compliance with the terms and conditions of this Licence does not necessarily absolve the Licensee from the responsibility to comply with all other applicable legislation, guidelines, and directives.

B. General Conditions

Part B of the Licence addresses the general terms and conditions that apply to the undertaking, such as annual report submission, protocols for handling documents related to the Licence, posting of signage at sites associated with the undertaking, and more.

C. Water Use

The Licensee is authorized to obtain water from Tee Lake not exceeding an annual volume of seventy thousand (70,000) cubic metres at a maximum rate of up to two hundred and ninety-nine (299) cubic metres daily, whichever comes first.

D. Waste Disposal

The Board set Effluent quality limits for discharge from the 2001 Sewage Disposal Facility, Emergency Sewage Disposal Facility, and 2007 Sewage Disposal Facility according to the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories* (1992). It is the Board's understanding that the 2007 Sewage Disposal Facility was never in use; however, the facility is currently leaking releasing runoff into the environment. Therefore, the Board kept the effluent quality limits for total suspended solids, oil and grease, and pH to protect any freshwater bodies that can potentially be affected by the runoff.

E. Modifications and Construction

The Licensee is required to obtain permission from the NWB for modifications that do not meet the definition of modifications or the criteria of Part E, Item 2 of the Licence. Without written consent from the NWB, the Licensee is not permitted to carry out any modifications. Changes that do not meet the definition of modification under the Licence or the requirements of Part E may be considered amendments to the Licence.

F. Operation and Maintenance

In Part F of the Licence, the Board requires the Hamlet to submit a stand-alone Water Supply Facility Operation and Maintenance Manual within ninety (90) days of the issuance of the Licence. In addition, the Board approved the "*Solidwaste [sic] Operation and Maintenance Plan*" dated April 2019 and "*Operation and Maintenance Procedure of the Existing Sewgae [sic] Lagoons*" dated February 2019 submitted during the licensing process.

The Board has also requires the Licensee to submit an Operation and Maintenance Manual for the future Wastewater Mechanical Treatment Plant at least six months prior to its commissioning.

⁵ Sections 85-88 of the *NWNSRTA*.

G. Spill Contingency Planning

The Board has approved the Plan entitled “*Standalone Spill Contingency Plan*” dated April 2019 that was submitted as additional information with the Application.

H. Closure and Reclamation

Although the Licensee requested that the P-Lake sewage lagoon (2007 Sewage Disposal Facility) be excluded from the Licence, the Board is of opinion that the facility should remain under the Hamlet’s Licence until it is fully reclaimed. The Board prescribes the Licensee to 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.

I. Monitoring Program

The Board has accepted the Plan entitled “Quality Assurance / Quality Control Plan” dated August 13, 2013 that was submitted as additional information with the Application. The Board thought that several changes to the Hamlet’s Monitoring Program were necessary:

1. As the P-Lake sewage lagoon (2007 Sewage Disposal Facility) is no more intended to be commissioned, most corresponding monitoring stations are now considered as inactive. However, in Part D, the Board sets limits for the effluent from this facility to protect any freshwater bodies where the effluent can be discharged, as this engineered facility is leaking and releasing runoff into the environment
2. GN-CGS informed that all groundwater wells remain dry throughout the year⁶. Hence, groundwater-monitoring stations are considered as inactive; and
3. The requirement for lethality testing of the effluent from sewage disposal facilities for rainbow trout and daphnia magna was removed as requested by the Licensee and as agreed by Environment and Climate Change Canada (ECCC). While ECCC supported the request, it indicated that once the wastewater treatment plant for the Hamlet is commissioned,

... toxicity testing could be included in the monitoring program and used as an indication of treatment performance. To simplify requirements for the Hamlet, it would be reasonable that just the Rainbow Trout bioassay test be used as an indicator (Daphnia are less sensitive to municipal effluent) and that this requirement not be included as a compliance requirement in the main body of the licence, but in the monitoring section.⁷

While in the past years the Hamlet adhered to the requirement to provide annual reports with the results of the Monitoring Program, the quality of those reports left much to be desired. The Board

⁶ Letter from Bhabesh Roy (GN-CGS) to Assol Kubeisinova (NWB), Re: Cape Dorset W1 question and Answer, dated March 31, 2019.

⁷ ECCC submission, RE: 3BM-CAP0810 – Government of Nunavut Community and Government Services – Hamlet of Cape Dorset – Type B Water Licence Application, dated August 16, 2018.

notes, however, that the Licensee understands what the shortcomings of the reports are and is committed to ensure that the Board's comments would be considered in future submissions⁸.

⁸ Letter from Bhabesh Roy (GN-CGS) to Assol Kubeisinova (NWB), Re: Cape Dorset W1 question and Answer, dated March 31, 2019.



NUNAVUT WATER BOARD REPLACEMENT WATER LICENCE

Licence No. 3BM-CAP1925

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

HAMLET OF CAPE DORSET

(Licensee)

P.O. BOX 30, CAPE DORSET, NU X0A 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 Replacement:

Licence Number/Type: **3BM-CAP1925 / TYPE "B"**

Water Management Area: **HUDSON STRAIT WATERSHED (NORTH AND WEST)
(65)**

Location: **QIKIQTANI REGION, NUNAVUT**

Classification: **MUNICIPAL UNDERTAKING**

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

Quantity of Water use not to Exceed: **70,000 CUBIC METRES PER ANNUM AT MAXIMUM
RATE OF 299 CUBIC METRES PER DAY**

Date of Licence Issuance: **MAY 22, 2019**

Expiry of Licence: **MAY 21, 2025**

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

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 Cape Dorset, located within the Qikiqtani Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the deposit 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

“2001 Sewage Disposal Facility” comprises the Three-Tier Lagoon which comprises the area and engineered lagoon and decant structures designed to contain sewage as described in the Application for Water Licence filed by the Applicant on April 19, 2001;

“2007 Sewage Disposal Facility” comprises the engineered lagoon and decant structures constructed in 2007 and illustrated in the Record Drawings No.’s 100 and 101 of Project N-05-4319-3000 prepared by Dillon Consulting and submitted November 13, 2007;

“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;

“Applicant” means the Licensee;

“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*;

“Chief Administrative Officer” means the Executive Director of the Nunavut Water Board;

“Compliance Plan” means the plan developed by the Hamlet of Cape Dorset to meet Licence requirements specifically, but not limited to, the disposal of Sewage and solid Waste, provided as additional information within the Application for Water Licence renewal filed by the Applicant;

“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;

“Emergency Sewage Disposal Facility” means a natural sump used for the purposes of sewage storage when the 2001 Sewage Disposal Facility is unavailable as described in the *“Operation and Maintenance Procedure of the Existing Sewgae [sic] Lagoons”* dated February 2019;

“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;

“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 Facilities” includes 2001 Sewage Disposal Facilities, 2007 Sewage Disposal Facilities and the Emergency Sewage Disposal Facility, and the Wastewater Mechanical Treatment Plant, once it is constructed;

“Solid Waste Disposal Facilities” comprises the area and associated structures designed to contain solid waste (landfill site) as described in the Application for Water Licence filed by the Applicant on April 19, 2001;

“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;

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

“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 Disposal Facilities” means all facilities designated for the disposal of waste, and includes the Sewage Disposal Facilities and Solid Waste Disposal Facilities as described in the *Solidwaste [sic] Operation and Maintenance Plan* dated April 2019 “*Operation and Maintenance Procedure of the Existing Sewgae [sic] Lagoons*” dated February 2019;

“Wastewater Mechanical Treatment Plant” means the wastewater treatment facility to be constructed as per the Compliance Plan;

“Water Supply Facility” comprises the area and associated intake infrastructure at Tee Lake, as described in the Application for Water Licence filed by the Applicant on April 19, 2001.

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 31st of the year following the calendar year being reported, containing the following information:
 - a. A summary report of Water use and Waste disposal activities;
 - b. Quantity of Water (in cubic metres per month and per year) obtained from all sources;
 - c. Quantity of Waste disposed of at the Waste disposal facilities;
 - d. Quantity of Waste backhauled to approved facility for disposal;
 - e. A list of unauthorized discharges and a summary of follow-up actions taken;
 - f. A summary of any studies, reports and plans (e.g., Operation and Maintenance, Abandonment and Restoration, QA/QC) requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned, including any revisions to the management plans submitted in the form of an Addendum;
 - g. A summary of all information requested and results of the Monitoring Program;
 - h. A summary, including photographic records before, during and after any relevant construction activities or Modifications and/or major maintenance work carried out on facilities under this Licence and an outline of any work anticipated for the next year;
 - i. An update on the Compliance Plan and progress made on specific requirements therein; and
 - j. Any other details on Water use or Waste disposal requested by the Board by the 1st 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 change.

3. 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.
4. The Monitoring Program and compliance dates specified in the Licence may be modified at the discretion of the Board.
5. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of Water volumes as required under Part J, Item 1.
6. Licensee shall post the necessary signs, where possible, to identify the stations of the Monitoring Program. All signage postings shall be in the Official Languages of Nunavut, and shall be located and maintained to the satisfaction of an Inspector.
7. The Licensee shall immediately report to the 24-Hour Spill Report Line at (867) 920-8130, any spills of Waste, which are reported to, or observed by the Licensee, within the municipal boundaries or in the areas of the Water Supply or Waste Disposal Facilities.
8. The Licensee shall, 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.
9. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
10. 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.
11. 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.
12. The Licensee shall ensure 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

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

13. The Licensee shall submit 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.
14. The Licensee shall ensure that all documents or correspondence submitted by the Licensee to the NWB are received and acknowledged by the Manager of Licensing.
15. This Licence is assignable as provided for in Section 44 of the *Act*.
16. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all Water from Tee Lake using the Water Supply Facilities or as otherwise approved by the Board in writing.
2. The annual quantity of Water use for all purposes under this Licence shall not exceed seventy thousand (70,000) cubic metres per year and two hundred seventy (299) cubic metres per day.
3. The Licensee shall maintain the Water Supply Facilities to the satisfaction of the Inspector.
4. 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.
5. The Licensee shall not remove any material from below the ordinary High Water Mark of any water body unless approved by the Board in writing.
6. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
7. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall locate areas designated for Waste disposal 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.
2. The Licensee shall direct all Sewage to the 2001 Sewage Disposal Facility.
3. The Licensee shall provide notice to an Inspector at least ten (10) days prior to initiating any decant of Sewage Disposal Facilities.
4. All Effluent discharged from the 2001 Sewage Disposal Facility at Monitoring Program Station CAP-4 and the Emergency Sewage Disposal Facility at Monitoring Program Station CAP-5 shall meet the following effluent quality limits:

Parameter Concentration	Maximum Average Concentration
BOD ₅	80 mg/L
Total Suspended Solids	100 mg/L
Faecal Coliforms	1×10^4 CFU/100mL
Oil and grease	No visible sheen
pH	Between 6 and 9

5. All Effluent discharged from the 2007 Sewage Disposal Facility at Monitoring Program Station CAP-6 shall meet the following effluent quality limits:

Parameter Concentration	Maximum Average Concentration
Total Suspended Solids	100 mg/L
Oil and grease	No visible sheen
pH	Between 6 and 9

6. The Licensee shall maintain at all times, a freeboard of at least 1.0 metre, or as recommended by a qualified Geotechnical Engineer with notice in writing provided to the Board, for all dams, dykes or other structures intended to contain, withhold, divert or retain water or wastes.
7. The Sewage Disposal Facilities shall be maintained and operated in such a manner as to prevent structural failure.
8. The Licensee shall dispose of and contain all solid wastes at the Solid Waste Disposal Facilities or as otherwise approved by the Board in writing.
9. The Licensee shall implement appropriate erosion and diversion control methods, to minimize surface water intrusion and leachate generation at the Solid Waste Storage Facility.

10. The Licensee shall segregate and securely store all hazardous materials and/or hazardous waste within the Solid Waste Disposal Facility in a manner as to prevent the deposit of deleterious substances into any water.

PART E: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION

1. The Licensee shall submit to the Board for approval in writing, 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 consent from the Board, carry out Modifications to the Water Supply Facilities 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. 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 E, Item 2 have not been met can be carried out only with written approval from the Board.
4. 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.
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 the release of sediment and minimize erosion.
7. With respect to earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the water.
8. The construction or disturbance of any stream/lake bed or banks of any definable water

course are not permitted, unless authorized by the Board in writing.

9. The Licensee shall use fill material for construction, operation and maintenance only from approved sources that have been demonstrated, by appropriate geochemical analyses, to not produce acid rock drainage and to be non-metal leaching, and free of contaminants.

PART F: CONDITIONS APPLYING TO OPERATIONS AND MAINTENANCE

1. The Licensee shall submit for Board approval, within ninety (90) days of the issuance of this Licence, a stand-alone Water Supply Facility Operation and Maintenance Manual that addresses all components of the system.
2. The Board has approved the Plan entitled “*Solidwaste [sic] Operation and Maintenance Plan*” dated April 2019 that was submitted as additional information with the Application.
3. The Board has approved the Plan entitled “*Operation and Maintenance Procedure of the Existing Sewgae [sic] Lagoons*” dated February 2019 that was submitted as additional information with the Application.
4. The Licensee shall submit to the Board for approval, at least six (6) months prior to commissioning of the Wastewater Mechanical Treatment Plant, an Operations and Maintenance Manual for this facility.
5. 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 any facility. 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.
6. The Licensee shall perform a visual operations inspection of all engineered facilities related to the management of water and waste on a weekly basis or more frequently as requested by an Inspector, to assess the general operating conditions and integrity of the containment structures. The records of these inspections are to be maintained and made available to an Inspector upon request during the Licence term.
7. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.

PART G: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved the Plan entitled “*Standalone Spill Contingency Plan*” dated April 2019 that was submitted as additional information with the Application.
2. The Licensee shall prevent any chemicals, petroleum products or Wastes associated with the project from entering Water. All Sumps and fuel caches shall be located at a distance

of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis.

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 and 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, 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 G, 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 H: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION

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

3. If the Plan referred to in Part H, Item 1 is not approved the Licensee shall make the necessary revisions and resubmit the Plan within thirty (30) days following notification from the Board.
4. Licensee shall complete all restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.
5. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's *Environmental Guideline for Site Remediation*, 2010. 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.

PART I: CONDITIONS APPLYING TO THE MONITORING PROGRAM

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

Monitoring Program Station	Description	Status
CAP-1	Raw Water supply prior to treatment	Active
CAP-2	Runoff from the Solid Waste Disposal Facilities	Active
CAP-3	Influent of Wastewater Sewage Disposal Facilities	Inactive
CAP-4	Effluent Discharge from the 2001 Sewage Disposal Facility	Active
CAP-5	Effluent discharge from the Emergency Sewage Disposal Facility	Active
CAP-6	Effluent discharge from the 2007 Sewage Disposal Facility – Final Discharge Point	Active
CAP-7	Point of influent of wastewater to P-Lake	Inactive
CAP-8	Centre of P-Lake	Inactive
CAP-9	Location midway between the Centre of P-Lake (Station 8) and the effluent discharge of P-Lake	Inactive
CAP-10	Effluent discharge from P-Lake; note, if flow is negligible a sample from the immediate upstream area within P-Lake shall be obtained	Inactive
CAP-11	Effluent discharge from Wetland area	Inactive
CAP-12	Wetland Pathway at the top of the waterfall	Inactive
CAP-13	Wetland Pathway at mid-way down waterfall	Inactive

CAP-14	Wetland Pathway at bottom of cliff – Final Discharge Point	Inactive
CAP-15	Control point using a small lake located between the Lagoon and Tee Lake	Inactive
CAP-16	Monitoring well located up gradient of the 2007 Sewage Disposal Facility	Inactive
CAP-17	Monitoring Well No.1 located down gradient of the 2007 Sewage Disposal Facility	Inactive
CAP-18	Monitoring Well No.2 located down gradient of the 2007 Sewage Disposal Facility	Inactive
CAP-19	Monitoring well located up gradient of the Solid Waste Disposal Facilities	Inactive
CAP-20	Monitoring well located down gradient of the Solid Waste Disposal Facilities	Inactive
CAP-21	Thermistor stations	Inactive
CAP-22	As above	Inactive
CAP-23	As above	Inactive
CAP-24	As above	Inactive

2. The Licensee shall sample at Monitoring Program Stations CAP-4 and CAP-5 inclusive, one week prior to the proposed discharge date, once at the beginning of discharge and weekly thereafter until cessation of discharge. Samples shall be analyzed for the following parameters:

Parameter	
Biochemical Oxygen Demand (BOD ₅)	
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	
Total Suspended Solids	
pH	
Conductivity	
Oil and Grease (visual)	
Fecal Coliforms	
Nitrate-Nitrite	Ammonia Nitrogen
Total Phosphorus	Total Phenols
Magnesium	Calcium
Sodium	Potassium
Chloride	Sulphate
Total Hardness	Total Alkalinity
Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn)	

Total Arsenic	
Total Mercury	
Total Organic Carbon (TOC)	

3. If the discharge at CAP-4 and/or CAP-5 has been suspended for more than 48 hours and subsequently restarted, the sampling sequence described in Part I, Item 2 of the Monitoring Program shall be repeated for these Stations.
4. The Licensee shall sample monthly at Monitoring Program Station CAP-2 during periods of observed flow. Samples shall be analyzed for the following parameters:

BOD ₅	Fecal Coliforms
pH	Conductivity
Total Suspended Solids	Total Suspended Solids
Nitrate-Nitrite	Oil and Grease
Total Phenols	Total Alkalinity
Total Hardness	Calcium
Magnesium	Potassium
Sodium	Sulphate
Total Arsenic	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel
5. The Licensee shall measure and record in cubic metres, the monthly and annual quantities of water pumped for all purposes at Monitoring Program Station CAP-1.
6. The Licensee shall measure and record in cubic metres the monthly and annual quantities of raw sewage offloaded from trucks and the number of days of use for the Sewage Disposal Facilities.
7. The Licensee shall measure and record the annual quantities of sewage solids removed from the Sewage Disposal Facilities.
8. 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 in writing.
9. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
10. The Licensee shall implement the Plan entitled “*Quality Assurance / Quality Control Plan*” dated August 13, 2013 that was submitted as additional information with the Application.
11. The Licensee shall annually review the QA/QC Plan and modify it as necessary. Revised QA/QC Plans shall be submitted to the Board with a current approval letter from an

accredited laboratory and shall meet the standards set out in Part I, Item 8 and Part H, Item 9 of the Licence.

12. The Licensee shall include all of the data and information required by the “Monitoring Program” in the Licensee's Annual Report, as required per Part B, Item 1 or as otherwise requested by an Inspector.
13. Modifications to the Monitoring Program including the Monitoring Program Stations and parameters may be made only upon written approval from the Board.