



ᓄᓇᓗᑦ ᐃᓕᓕᓱᓪᑦ ᑲᓂᓕᓱᓪᑦ
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: 3BM-WHA0914 /
Amendment/Renewal

June 4, 2015

Paul Kaludjak
Senior Administrative Officer (SAO)
Hamlet of Whale Cove
Box 120, Whale Cove
NU X0C 0J0
E-mail: sao@whalecove.ca

Megan Lusty
Municipal Planning-EIT
GN-CGS, Kivalliq Region,
P. O. Box 490, Rankin Inlet
NU X0B 0G0
mlusty@gov.nu.ca

RE: 3BM-WHA1520 Hamlet of Whale Cove Renewal Licence

Dear Mr. Kaludjak and Ms. Lusty:

Please find attached **Licence No. 3BM-WHA1520** issued to the Hamlet of Whale Cove 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*. The terms and conditions of the attached Licence related to Water use and Waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during any public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then Water use and Waste disposal must cease, or the Licensee will be in contravention of the *Nunavut Land Claims Agreement* (NLCA) 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.

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

i

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 thirty (30) 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 acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received from interested persons on issues identified.¹

Sincerely,

Thomas Kabloona
Nunavut Water Board, Chair

TK/sj/pb

Enclosure: Licence No. **3BM-WHA1520**
Comments – AANDC

cc: Kivalliq Distribution List

¹ Aboriginal Affairs and Northern Development Canada (AANDC), February 23, 2015.

DECISION

LICENCE NUMBER: 3BM-WHA1520

This is the decision of the Nunavut Water Board (NWB) with respect to an application for the renewal and amendment of a licence received on January 16, 2015, and made by:

HAMLET OF WHALE COVE

to allow for the use of Water and deposit of Waste for a Municipal undertaking within the Hamlet of Whale Cove as outlined in its renewal and amendment application. The Hamlet of Whale Cove's undertaking is located in the Kivalliq Region of Nunavut at the following general geographical coordinates:

Latitude: 62° 11' N

Longitude: 92° 35' W

DECISION

After having been satisfied that the Application was in conformity² with the Keewatin Regional Land Use Plan as determined by the Nunavut Planning Commission (NPC) and is exempted from the requirement for screening as described within Schedule 12-1 by the Nunavut Impact Review Board³ in accordance with Article 12 of the *Nunavut Land Claim Agreement (NLCA)*, 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 submissions 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 *NLCA* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

Licence No. 3BM-WHA0914 be renewed as Licence No. 3BM-WHA1520 subject to the terms and conditions contained therein (Motion #: 2015-B1-008).

SIGNED this 4th day of June 2015 at Gjoa Haven, NU.

Thomas Kabloona
Nunavut Water Board, Chair

² Nunavut Planning Commission (NPC), Land Use Conformity Determination, January 23, 2015.

³ Nunavut Impact Review Board (NIRB), Screening Exemption Decision, February 27, 2015.

TABLE OF CONTENTS

DECISION	iii
I. BACKGROUND	1
II. PROCEDURAL HISTORY	1
III. File History	2
IV. ISSUES	2
Term of Licence.....	3
Annual Report.....	3
Potable Water Supply	3
Sewage Treatment	4
Solid Waste Disposal.....	4
Management Plans or Manual	4
Plan for Compliance	5
Geotechnical Inspection.....	5
Design Drawings	5
Proposes Changes to Licence Terms and Conditions	6
PART A: SCOPE AND DEFINITIONS	8
1. Scope	8
2. Definitions	8
3. Enforcement	11
PART B: GENERAL CONDITIONS	11
PART C: CONDITIONS APPLYING TO WATER USE	13
PART D: CONDITIONS APPLYING TO WASTE DISPOSAL	14
PART E: CONDITIONS APPLYING TO MODIFICATION AND CONSTRUCTION	16
PART F: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE	17
PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION	19
PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM	19

I. BACKGROUND

The Hamlet of Whale Cove (the Hamlet or the Applicant or the Licensee) is located approximately 72 kilometres south of Rankin Inlet, in the Kivalliq Region of Nunavut. The Hamlet owns and operates several municipal facilities for the purpose of providing relevant services to the members of the community, estimated in 2014 at 419 persons. Hamlet-owned facilities that require a water licence from the NWB to operate include a potable Water Supply Facility, a Solid Waste Disposal Facility, and a Sewage Disposal Facility.

The current NWB licence held by the Hamlet to operate to the above-mentioned facility expired on May 31, 2014. Therefore, the Hamlet has applied to renew as well as amend the expired licence to include an expansion to the Sewage Disposal Facility.

II. PROCEDURAL HISTORY

The Nunavut Water Board (NWB or Board) received from the Government of Nunavut – Community and Government Services (GN-CGS), on behalf of the Hamlet of Whale Cove, the following documents in support of an application to renew and amend water Licence No. 3BM-WHA0914 (Application) under two submissions:

2013 Submission

- Wetland Assessment Report, March 2013;
- Geotechnical Recommendations, September 2012;
- Design Brief Sewage Wetland Upgrade, September 2012;
- Geotechnical Investigation, November 14, 2011;
- Environmental Assessment Screening and CEAAA – Appendix A (Final Report), March 2013;
- Environmental Assessment Screening and CEAAA – Appendix B (Site Photograph), March 2013;
- Cover Letter Regarding Expansion of Whale Cove Wastewater Treatment Facility
- Drawings:
 - Cover Sheet;
 - Sewage lagoon, Site location Plan (WC-1);
 - Sewage lagoon, Overall Site Plan (WC-2);
 - Sewage lagoon, Construction Management Plan (WC-3);
 - Sewage lagoon, Proposed lagoon Modification Plan (WC-4);
 - Sewage lagoon, Truck Discharge Plan (WC-5);
 - Sewage lagoon, Truck Discharge Details (WC-6);
 - Sewage lagoon, Truck Discharge Details (WC-7);
 - Sewage lagoon, Truck Discharge Details (WC-8);

2015 Submission

- Table of Contents;
- 2009, 2010, 2013. Annual Report for the Hamlet of Whale Cove;
- Amendment Cover Letter, dated January 16, 2015;

- Authorization Letter from the Hamlet of Whale Cove, dated December 10, 2014;
- Jun 18, 2013 Analytical Results for the Hamlet of Whale Cove Monitoring Program;
- Executive Summary in English;
- Executive Summary in Inuktitut;
- Hamlet of Whale Cove Completed Amendment Application Form, dated December 9, 2014;
- Hamlet of Whale Cove Plan for Compliance, dated January 16, 2015; and
- Community Background.

Following receipt, the NWB conducted an internal preliminary technical and administrative review after which the Application was distributing for a thirty (30) day public review and comment period on January 21, 2015. On February 23, 2015, comments were received from Aboriginal Affairs and Northern Development Canada (AANDC). AANDC in its submission commented on the duration or term requested by the Applicant for the amendment-renewal licence as well as made several recommended changes to terms and conditions in the expired licence that may potentially be carried forward under any renewal-amended licence issued for the undertaking.

All information received in support of the Application as well as the submissions provided by the intervening parties can be found at the following link:

<ftp://ftp.nwb-oen.ca/1%20PRUC%20PUBLIC%20REGISTRY/3%20MUNICIPAL/3B/3BM%20-%20Municipality/3BM-WHA0914/>

III. FILE HISTORY

The NWB has issued two licences to the Hamlet of Whale Cove in the past: Licence No. 3BM-WHA0914 and Licence No. NWB3WHA0207.

The currently expired Licence, Licence No. 3BM-WHA0914, was issued to the Hamlet on June 10, 2009 and expired on May 31, 2014. The licence allowed for the use of 30,000 cubic metres of Water annually and the deposit of Waste in support of a Municipal undertaking.

Previous to the issuance of Licence No. 3BM-WHA0914, the NWB issued Licence No. NWB3WHA0207 to the Hamlet of Whale Cove on September 1, 2002. The licence, which allowed for the use of 30,000 cubic metres of Water annually and the deposit of Waste in support of a Municipal undertaking, expired on August 31, 2007.

No other records of authorizations issued by the NWB to the Hamlet of Whale Cove were seen on the NWB's FTP site.

IV. ISSUES

The following sections provide some background information relevant to the terms and conditions included in this Licence, in the context of submission(s) received and/or the Board's rationale. As noted and where appropriate, the Board has removed or modified terms and

conditions associated with the previous licence, which the Board determined are no longer applicable under this amendment renewal licence.

Term of Licence

In accordance with section 45 of the Act, the NWB may issue a licence for a term not exceeding twenty-five (25) years. In determining the appropriate term for a licence, the Board takes into consideration several factors including the Licensee's past performance, compliance record, ability to comply with the terms and conditions of a licence, interveners' comments and more. The Licensee requested a 10-year term for the licence, which the NWB believes is excessive given the lack of management plans included as part of the Application and the Licensee's compliance history. The NWB acknowledges AANDC's comments and recommendations that a longer term licence, 15 – 20 years, might generally contribute to reductions in compliance-related issue. However, the NWB believes that part of the basis for a longer term licence should rest on the compliance history of the Applicant, which currently may not support a licence term as long as five years. Notwithstanding the Licensee's compliance history, the Board has granted a 5-years term for the renewal-amended licence for the undertaking.

Annual Report

Similar to conditions generally included in licences issued by the Board, the NWB has included under, Part B, Item 1, in the licence, the requirement for the Licensee to submit to the Board for review, prior to the 31 of March annually, a report detailing Water use and Waste disposal activities. The Board provides public access to the information included in annual reports submitted by licensees through its ftp site as well as upon request from interested persons.

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 information specific to an undertaking or project. Copies of the NWB's generic annual reporting form can be obtained from the NWB's FTP site using the following link:

<ftp://ftp-oen.ca/ADMINISTRATION/Standardized%20Forms/>.

Potable Water Supply

According to the information provided in the Application, the Hamlet obtains its potable Water from a Water body known as Fish Lake, located approximately 3.5 kilometres north of the community. The Water Supply Facility consists of a Water intake structure, pump house, and truck-fill station. Freshwater obtained from Fish Lake is conveyed using a transmission line to a pump house and truck-fill station. For disinfection, chlorine is injected at the truck-fill station simultaneously as water trucks are being replenished for distributing Water to residents and businesses in the community.

Similar to the Water use requirements allowed under the expired licence, the Applicant requested in its amendment renewal application 30,000 cubic metres of Water annually. Water for all purposes under any renewal-amended licence issued will be obtained from Fish Lake

The Board has reviewed the water requirement stated in the Application and is satisfied that the water quantity requested by the Applicant is consistent with the nature of the undertaking. The Board has therefore granted, under Part C, Item 1 of the Licence, the water quantity requested, thirty thousand (30,000) cubic metres annually, which should not exceed more than two-hundred and ninety-nine (299) cubic metres *per day*.

Sewage Treatment

The Hamlet of Whale Cove also provides Sewage services to the residents, businesses and institutions in the community. The sewage generated by the community is collected by trucks and transported to the Sewage Disposal Facility (SDF) for treatment. The Facility is located approximately 450 m southwest of the community and consists of a truck offload discharge area, a single-cell lagoon created within the depression of an existing lake, and a natural wetlands area. The capacity of the Sewage Disposal Facility was increased in recent years through the construction of berms along the east and west banks of the facility. Treated effluent from the lagoon is discharged into a natural wetland area spanning approximately 600 metres before being finally released into the Hudson Bay.

As part of the scope of the amendment requested under the Application, the Hamlet indicated that it is planning to upgrade the SDF in 2015 so as to increase the storage capacity to 36,161 cubic metres by raising and widening the existing west berm, raising the existing east berm and building an additional berm along low-lying areas. The upgrades are expected to increase the lifespan of the existing lagoon to meet the Hamlet's 20-year commitment. The Board has included conditions related to the operations of the Sewage Disposal Facility, including the conditions related to the proposed upgrades under Parts D and E in the renewal-amended licence.

Solid Waste Disposal

The Solid Waste Disposal Facility (SWDF) operated by the Hamlet is located approximately 3 kilometres southwest of the community and covers an area of approximately 1.2 hectares (ha). The facility consists of a landfill, bulky metal area, household Hazardous waste area, and a Landfarm Facility. The Board has included conditions related to the operations of the Solid Waste Disposal Facility under Part D in the renewal-amended licence.

Management Plans or Manual

Under Part F, Item 2 of the expired licence, the Applicant was required to submit to the Board for approval a copy of a consolidated Operations and Maintenance Manual that includes an Environmental Emergency Contingency Plan, Environmental Monitoring Program & Quality Assurance/Quality Control Plan and Operation and Maintenance (O&M) Plans for the Sewage Disposal Facility, Solid Waste Disposal Facility and Water Supply Facility. Versions of the aforementioned plans included in the Manual were submitted in 2008; however, they have not been approved by the Board for a variety of reasons. The Board has included terms and conditions under Part F, Item 2 in the renewal-amended licence requiring the submission of a consolidated Operation and Maintenance Manual within six (6) months following the date of issuance of the Licence. The timeline allowed for submission of the manual takes into consideration information provided by the Applicant in its Plan for Compliance as well as other factors.

QA/QC Plan

Under Part H, Item 13 of the terms and conditions in the expired Licence, the Applicant was required to submit to the Board for review and approval a Quality Assurance/Control (QA/QC), along with confirmation from a laboratory confirming that plan is acceptable given that the version of the plan dated 2008 was not accepted by the Board.

The Board notes that this requirement remains outstanding, and in keeping with commitments included the Applicant's Plan for Compliance, the Board has included conditions under Part H, Item 14 in the renewal-amended licence requiring the Licensee to submit to the Board for review, instead of approval, an updated version of the QA/QC Plan, within six (6) months following the date of issuance of the amendment renewal licence.

Plan for Compliance

The Licensee submitted, as part of its Application, a Plan for Compliance that includes timelines by which the Licensee intends to address outstanding issues associated with its Application and file. While the information contained in the Plan for Compliance helps to provide an overview in terms of the Licensee's long-term and short-term plans for resolving outstanding issues, the information contained in the Plan for Compliance is not necessarily absolute or binding in any way. Therefore, the NWB has decided to not include conditions in this renewal-amended licence relating to the approval of the Plan for Compliance although the NWB has relied on the Plan some cases as the basis in formulating aspects of terms and conditions included in the Licence.

Abandonment and Restoration

To ensure that any end-of life issues for facilities and infrastructure, included within the scope of the amendment renewal licence, are addressed fully in the context of appropriate closure and reclamation measures, the NWB has included appropriate terms and conditions in the licence. The NWB requires the Licensee to submit an abandonment and restoration plan at least six (6) months prior to final closure and reclamation of any licensed facility and/or upon submission of final design drawings for the construction of new facilities to replace existing ones. These requirements are included under Part G in the Licence.

Geotechnical Inspection

Part F, Item 4 of the expired licence included requirements for a Geotechnical Engineer to conduct annual inspections of the facilities constructed to manage Water and Waste. The Board has amended this term and condition to allow for annual inspections of municipal infrastructure or facilities to be conducted by an appropriate engineer while the inspections conducted one year prior to expiry of the licence have to be conducted by a Geotechnical Engineer. Terms and conditions related to the inspection of Municipal infrastructure are included under Part F in the Licence.

Design Drawings

As part of the terms and conditions of the licence, the Licensee is required to submit to the Board for review, for-construction drawings of the proposed expansion of the Sewage Disposal Facility at least thirty (30) days prior to construction and as-built drawing at least ninety (90) days following construction of the facility. In addition, the Licensee is required to submit as

built drawings of the already constructed Landfarm Facility as part of the terms and conditions carried forward from the expired licence.

Proposes Changes to Licence Terms and Conditions

As noted, based on intervener's comments received for the Application, issues were identified by AANDC surrounding interpretation and enforceability of certain terms and conditions contained in the expired licence. While the NWB has given due consideration to all of the comments and recommendations provided, the NWB has incorporated only limited changes under the amendment renewal licence as the focus of the review process was not primarily aimed at reviewing the interpretation and enforceability of the terms and condition in the expired licence in a holistic way necessarily.



NUNAVUT WATER BOARD WATER LICENCE RENEWAL

LICENCE NO. 3BM-WHA1520

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 WHALE COVE

(Licensee)

P.O. BOX 120 WHALE COVE, NUNAVUT X0C 0J0

(Mailing Address)

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

Licence Number/Type: 3BM-WHA1520 TYPE "B"

Water Management Area: WILSON WATERSHED (13)

Location: HAMLET OF WHALE COVE
KIVALLIQ REGION, NUNAVUT

Classification: MUNICIPAL UNDERTAKING

Purpose: DIRECT WATER USE AND DEPOSIT OF WASTE

Quantity of Water use not
to Exceed: 30,000 CUBIC METRES PER ANNUM AND (299 CUBIC
METRES PER DAY, MAXIMUM)

Date of Licence Issuance: JUNE 4, 2015

Expiry of Licence: JUNE 3, 2020

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

Thomas Kabloona,
Nunavut Water Board, Chair

PART A: SCOPE AND DEFINITIONS

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 within the Hamlet of Whale Cove, located in the Kivalliq Region of Nunavut, approximately at the following geographical coordinates: Latitude: 62°11' N and Longitude: 92°35'W.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial, and Municipal legislation.

2. Definitions

In this Licence: **3BM-WHA1520**

“**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;

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

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

“**Board**” means the Nunavut Water Board established under the *Nunavut Land Claims*

Agreement;

“**Effluent**” means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond 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**” in respect of an effluent means an identifiable discharge point of a facility beyond which the operator of the facility no longer exercises control over the quality of the effluent;

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

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

“**Grab Sample**” means a single water or wastewater sample taken at a time and place representative of the total discharge;

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

“**Hazardous Waste**” means waste classified as “hazardous” by Nunavut Territorial or Federal legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act*;

“**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;

“**Landfarm Facility**” means an area designed to biologically treat Type B soils, as described in the Application for Water Licence filed by the Hamlet of Whale Cove on

June 2, 2006 and as described in the renewal and amendment Application dated January 16, 2015;

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

“**Modification**” means an alteration to a physical work that introduces new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion, and changes to the operating system that are consistent with the terms of this Licence and do not require amendment;

“**Modified Sewage Disposal Facility**” means the existing Sewage Disposal Facility plus the upgrades proposed to the facility in the Application dated January 16, 2015 that included preliminary drawings of the facility;

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

“**Nunavut Land Claims Agreement (NLCA)**” 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;

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

“**Sewage Disposal Facility**” comprises the area and engineered lagoon designed to contain Sewage as described in the Application for Water Licence filed by the Applicant on April 2, 2002 and as described in the Application dated January 16, 2015;

“**Sewage Sludge**” means the semi-solid sewage material which settles at the bottom of the Sewage lagoon;

“**Solid Waste Disposal Facility**” 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 2, 2002 and Application dated January 16, 2015;

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

“**Treatment Objective**” means the treatment objective for the Landfarm Facility which is based on the Canadian Council of Ministers of the Environment (CCME), 2001 *Canada – Wide Standard for Petroleum Hydrocarbon in Soil*, for Industrial land use; or as determined by the Government of Nunavut, Environmental Protection Service based on the 2002 *Environmental Guideline for Site Remediation*;

“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;

“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;

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

“Waste Disposal Facilities” means all facilities designated for the disposal of waste, and includes the Sewage Disposal Facilities, Solid Waste Disposal Facilities, and Landfarm Facility, as described in the Application for Water Licence filed by the Applicant on April 2, 2002, and June 2, 2006, with supplemental information, and as described in the Application dated January 16, 2015;

“Water Supply Facility” comprises the area and associated intake infrastructure at Water Supply Lake, as described in the Application for Water Licence filed by the Applicant on January 9, 2003 and renewal application file on April 12, 2010, and as described in the Application dated January 16, 2015;

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*;
- 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; and

PART B: GENERAL CONDITIONS

1. The Licensee shall file an Annual Report with the Board not later than the 31st of March of the year following the calendar year reported, which shall contain the following information:
 - a. tabular summaries of all data generated under the “Monitoring Program”;
 - b. the monthly and annual quantities in cubic metres of fresh Water obtained at the

- Water Supply Facility;
- c. the monthly and annual quantities in cubic metres of each and all Waste discharged;
 - d. a summary of modifications and/or major maintenance work carried out on the Water Supply Facility, Sewage Disposal Facility, and Solid Waste Disposal Facility, including all associated structures and facilities;
 - e. a list of unauthorized discharges and summary of follow-up action taken;
 - f. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - g. Any updates or revisions for manuals and plans (including *Operations and Maintenance Manual/Plans*) as required by changes in operation and/or technology;
 - h. a summary of any studies or reports requested by the Board that relate to Water use and Waste disposal or restoration, and a brief description of any future studies planned; and
 - i. any other details on water use or waste disposal requested by the Board by November 1 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 in writing.
 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 H, Item 1.
 6. The Licensee shall, within ninety (90) days after the first visit by the Inspector, following the issuance of this Licence, post the necessary signs to identify the stations of the “Monitoring Program.” All signage postings shall be in the Official Languages of Nunavut.
 7. The Licensee shall immediately report to the 24-Hour Spill Report Line (867) 920-8130 any spills of Waste, which are reported to, or observed by the Licensee, within the municipal boundaries or in the areas of the Water Supply or Waste Disposal Facilities.
 8. The Licensee shall ensure a copy of this Licence is maintained at the Municipal Office at all times. 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, AANDC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445

9. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
10. The Licensee shall ensure that all document(s) and correspondence submitted by the Licensee to the Board are received and acknowledged by the Manager of Licensing.
11. 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.
12. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
13. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and condition imposed upon approval of a Plan by the Board shall become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
14. This Licence is not assignable except as provided in Section 44 of the Act.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all fresh Water processed by Water Supply Facility and/or for any other uses under this licence from Fish Lake, as described in the Application. The total volume of water for all purposes under this licence shall not exceed thirty thousand

(30,000) cubic metres *per* year and two hundred and ninety-nine (299) cubic metres *per* day.

2. 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.
3. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body unless otherwise approved by the Board in writing.
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 prior to and maintain as required during Hamlet operations, to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall direct all Sewage to the Sewage Disposal Facility or as otherwise approved by the Board in writing.
2. Following completion of proposed upgrades to the Sewage Disposal Facility, the Licensee shall direct all Sewage to the Modified Sewage Disposal Facility or as otherwise approved by the Board in writing.
3. 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 authorized by the Board.
4. All Effluent discharged from the Sewage Disposal Facility at Monitoring Program Station WHA-3, shall not exceed the following Effluent quality limits:

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

5. The Licensee shall maintain at all times, a Freeboard of at least 1.0 metre, or as recommended by a qualified geotechnical engineer and as approved by the Board in writing, for all dams, dykes or other structures intended to contain, withhold, divert or retain Water or Wastes.

6. The Sewage Disposal Facility shall be maintained and operated in such a manner as to prevent structural failure.
7. The Licensee shall ensure that Type B Soil, treated at the Landfarm Facility, meets relevant treatment objectives described in Plan submitted to the Board by the Licensee on June 2, 2006 containing supplemental information and any subsequent revisions approved by the Board in writing.
8. All Water from dewatering contaminated soil areas and discharge of Effluent at Monitoring Station WHA-6 at the Landfarm Facility, shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of Any Grab Sample (µg/L)
pH	6 to 9 (Units)
Oil and Grease	5000
Arsenic (total)	100
Cadmium (dissolved)	10
Chromium (dissolved)	100
Cobalt (dissolved)	50
Copper (dissolved)	200
Lead (dissolved)	50
Mercury (total)	0.6
Nickel (dissolved)	200
PCB (total)	1000
Phenols	20
Zinc (total)	500
Benzene	370
Toluene	2
Ethylbenzene	90

9. If Effluent does not meet the Effluent quality limits of Part D, Item 8 above, it shall be considered Hazardous Waste and disposed off-site at an approved facility or as otherwise approved by the Board in writing.
10. The discharge location for all treated Effluents described in Part D, Items 8 shall be to the satisfaction of an Inspector and located at a minimum of thirty-one (31) metres from the ordinary High Water Mark of any Water body and where direct or indirect flow into a Water body is not possible and no additional impact is created.
11. The Licensee shall dispose of soils containing contaminants, in excess of *Canadian Environmental Protection Act* (CEPA) Guidelines, off-site at an approved treatment facility.

12. The Licensee shall, prior to the removal of any treated soil for future use, confirm with the Government of Nunavut, Environmental Protection Service that the soils have been treated so as to meet the legislatively-required Treatment Objective.
13. The Licensee shall provide at least ten (10) days' notice to an Inspector, of the intent to discharge Effluent from the Sewage Disposal Facility or the Landfarm Facility.
14. The Licensee shall dispose of and permanently contain all solid Wastes at the Solid Waste Disposal Facility or as otherwise approved by the Board in writing.
15. The Licensee shall segregate and store all Hazardous materials and/or Hazardous Waste within the Solid Waste Disposal Facility in a manner to prevent the deposit of deleterious substances into any Water, until such a time that the materials have been removed for proper disposal at an approved facility.
16. The Licensee shall implement measures to ensure leachate from the Solid Waste Disposal Facility does not enter Water.
17. All pump out Water from excavation and borrow pits shall be pumped to an area approved by an Inspector.

PART E: CONDITIONS APPLYING TO MODIFICATION AND CONSTRUCTION

1. The Board has authorized the proposed upgrades to the Sewage Disposal Facility as described in the preliminary drawings and relevant documents provided in support of the Application.
2. The Licensee shall submit to the Board for review for-construction design drawings, signed and stamped by a qualified Engineer registered in Nunavut, at least thirty (30) days prior to construction of any dams, dykes or structures intended to contain, withhold, divert or retain Water or Wastes.
3. The Licensee may, without written approval from the Board, carry out modifications to the Water Supply and Waste Disposal Facilities provided that such modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed modifications at least sixty (60) days prior to beginning the modifications;
 - b. these modifications do not place the Licensee in contravention of the Licence or the Act;
 - c. the Board has not, during the sixty (60) days following notification of the proposed modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - d. the Board has not rejected the proposed modifications.

4. Modifications for which all of the conditions referred to in Part E, Item 3 have not been met, may be carried out only with written approval from the Board. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.
5. The Licensee shall submit to the NWB for review, within ninety (90) day following the date of issuance of the Licence, a status report for the Landfarm Facility that includes among other relevant information, as-built drawings, signed and stamped by an Engineer.
6. The Licensee shall provide to the NWB for review, as-built drawings of the Modified Sewage Disposal Facility at least ninety (90) days following completion of upgrades to the facility.
7. 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.
8. The Licensee shall implement sediment and erosion control measures prior to and during all activities carried out under this Part to prevent the release of sediment and minimize erosion.

PART F: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

1. The Licensee shall submit to the Board for review, within six (6) months following the issuance of the licence, a Solid Waste Disposal Facilities Update Report including photographic record, which demonstrates the implementation of measures recommended in the *Solid Waste Management Facility O&M Plan* to improve the existing or current facility
2. The Licensee shall submit to the Board for Approval, within six (6) months from the date of issuance of this Licence, an updated consolidated Operations and Maintenance (O&M) Manual consisting of:
 - a. Environmental Emergency Contingency Plan;
 - b. Environmental Monitoring Program & Quality Assurance/Quality Control Plan;
 - c. Sewage Treatment Facility Operation and Maintenance (O&M) Plan;
 - d. Solid Waste Management Facility Operation and Maintenance (O&M) Plan; and
 - e. Water Supply Facility Operation and Maintenance (O&M) Plan.
3. The Manual referred to in Part F, Item 2, shall be prepared, where appropriate, in accordance with the "*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories*"

(1996). In addition, the Manual shall take into consideration the comments received during the Application review process as well as include the following:

- a. Updated sampling locations, parameters and timing required under the Licence;
 - b. Updated *Environmental Emergency Contingency Plan* to include the information requirements under Part H, Item 1, of Licence No. 3BM-WCL0712;
 - c. *A Landfarm Management Plan*;
 - d. *A Sewage Sludge Management Plan*; and
 - e. A QA/QC Plan as required by Part H, Item 14.
4. The Licensee shall review the O&M Manual referred to in Part F, Item 2 as required by changes in operation and/or technology and modify accordingly. Revisions are to be submitted in the form of Addendums to be included with the Annual Report.
 5. An inspection of all engineered facilities related to the management of Water and Waste shall be carried out by an Engineer at a minimum of once annually, and before commissioning any engineered facility related to the management of Water and Waste. 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 to address each of the Engineer's recommendations.
 6. An inspection of all engineered facilities related to the management of Water and Waste shall be conducted by a Geotechnical Engineer in accordance with the Canadian Dam Safety Guidelines, at least one (1) year prior to the expiry of the Licence, during the open Water period (June/July/August). The Geotechnical Engineer's report shall be submitted to the Board for review within sixty (60) days of the inspection, including a cover letter from the Licensee outlining an implementation plan to address the Engineer's recommendations.
 7. The Licensee shall perform more frequent inspections of the engineered facilities at the request of an Inspector.
 8. If during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. employ the appropriate contingency measures as approved for the Hamlet of Whale Cove;
 - b. report the incident immediately via the 24-Hour Spill Reporting Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - c. submit to the Inspector, a detailed report on each occurrence, not later than thirty (30) days after initially reporting the event, that provides the necessary information on the location (including the GPS coordinates), initial response action, remediation/clean-up, status of response (ongoing, complete), proposed disposal options for dealing with contaminated materials and preventative measures to be implemented.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

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

2. The Licensee shall complete the restoration work within the time schedule specified in the Plan, or as subsequently revised and approved by the Board.

3. All disturbed areas shall be stabilized and re-vegetated as required, upon completion of work, and restored as practically as possible to a pre-disturbed state.

PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM

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

Monitoring Program Station Number	Description	Frequency	Status
WHA-1	Raw water intake at the Water Supply Lake	Monthly and Annually	Active (Volume)
WHA-2	Runoff from the Solid Waste Disposal Facility	Monthly (During Period of Flow)	Active (Quality)
WHA-3	Final Discharge Point for effluent from the Sewage Disposal Facility prior to the wetland	Monthly, Annually, (during period of flow)	Active (Volume,)

	area	Monthly (During Period of Flow)	Active Quality
WHA-4	Effluent outfall area from the wetland area	Monthly (during periods of observed flow)	Active (Volume) (Quality)
WHA-5	Soil Entering the Landfarm	Based on operational Practices	Active (Volume, Quality)
WHA-6	Effluent discharged from the Landfarm Facility containment sump at the controlled point of release	Prior to release to the receiving environment	Active (Quality)
WHA-7	Monitoring well located up gradient of the Solid Waste Disposal Facility.	Once annually, (During summer)	Active (Quality)
WHA-8	Monitoring well located down gradient of the Solid Waste Disposal Facility.	Once annually, (During summer)	Active (Quality)

2. The Licensee shall measure and record, in cubic metres, the monthly and annual quantities of Water pumped at Monitoring Program Station WHA-1, for all purposes.
3. The Licensee shall measure and record, in cubic metres, the monthly and annual quantities of Effluent discharged from Monitoring Program Station WHA-3.
4. The Licensee shall sample monthly at Monitoring Program Station WHA-2, WHA-3 and WHA-4 during periods of observed flow and annual discharges, to be analyzed for the following parameters:

Biochemical Oxygen Demand (BOD)	Fecal Coliforms
Total Suspended Solids	pH
Conductivity	Nitrate-Nitrite
Oil and Grease (visual)	Total Phenols
Magnesium	Calcium
Sodium	Potassium
Chloride	Sulphate
Total Hardness	Total Alkalinity
Ammonia Nitrogen	Total Zinc

Total Cadmium
 Total Cobalt
 Total Chromium
 Total Copper
 Total Aluminum

Total Iron
 Total Manganese
 Total Nickel
 Total Lead
 Total Arsenic

5. The Licensee shall carry out inspections at Monitoring Program Stations WHA-2, WHA-3, and WHA-4, weekly from May to August inclusively, to determine Effluent or Water flow in order to fulfill the monitoring requirements of Part H, Item 4. A record of inspections shall be retained and made available to an Inspector upon request.
6. The Licensee shall measure and record the volume of all soil, from all sources locations entering the Landfarm Facility at Monitoring Program Station WHA-5.
7. The Licensee shall assess and record the concentration of petroleum hydrocarbon contaminated soil entering the Landfarm Facility (WHA-5) from all sources, as per the CCME *Canada-Wide Standard for Petroleum Hydrocarbons in (PHC) in Soil*.
8. The Licensee shall sample prior to discharge at Monitoring Program Station WHA-6, to verify compliance with the Effluent quality limits under Part D, Item 8.
9. The Licensee shall install groundwater monitoring wells at the Landfarm Facility, at least one monitoring well shall be located upstream of the facility for background data collection (WHA-7) and at least one downstream of the facility (WHA-8).
10. The Licensee shall sample at Monitoring Program Stations WHA-7 and WHA-8, once annually in the summer, giving consideration to adequate ground thaw and obtaining representative groundwater samples. Samples shall be analyzed for the following parameters:

Biochemical Oxygen Demand (BOD)₅
 Total Suspended Solids
 Conductivity
 Oil and Grease
 Magnesium
 Sodium
 Chloride
 Total Hardness
 Ammonia Nitrogen
 Total Cadmium
 Total Aluminum
 Total Chromium
 Total Copper
 Total Arsenic

Fecal Coliforms
 pH
 Nitrate-Nitrite
 Total Phenols
 Calcium
 Potassium
 Sulphate
 Total Mercury
 Total Alkalinity
 Total Zinc
 Total Iron
 Total Manganese
 Total Nickel
 Total Lead

TPH (Total Petroleum Hydrocarbons)
PAH (Polycyclic Aromatic
Hydrocarbons)
BTEX (Benzene, Toluene, Ethylbenzene,
Xylene

11. Additional monitoring stations, sampling and analysis may be requested by an Inspector.
12. 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.
13. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025 for all required analyses. The accreditation shall be current and in good standing.
14. The Licensee shall submit to the Board for review, within six (6) months following the date of issuance of the licence, a Quality Assurance/Quality Control (QA/QC) Plan. The Plan shall include up-to-date sampling methods to all applicable standards, acceptable to an accredited laboratory as required by Part H, Item 12 and Part H, Item 13. The Plan shall include a cover letter from the accredited laboratory and Analyst, confirming acceptance of the Plan for analyses to be performed under this Licence.
15. The Licensee shall annually review the Quality Assurance/Quality Control Plan in Part H, Item 14 and modify it as necessary. Proposed modifications shall be submitted to the accredited laboratory for approval.
16. The Licensee shall measure and record the annual quantities of Sewage Sludge removed from the Sewage Disposal Facility.
17. The Licensee shall include all of the data and information required by the “Monitoring Program” complete with an interpretation and discussion of the results, in the Licensee's Annual Report, as required under Part B, Item 1, or as requested by an Inspector.
18. Modifications to the Monitoring Program may be made only upon written approval of the Board.