



NUNAVUT WATER BOARD

TYPE "A" WATER LICENCE NO: 3AM-RUT2035



TABLE OF CONTENTS

PART A:	SCOPE, DEFINITIONS, AND ENFORCEMENT.....	4
1.	SCOPE	4
2.	DEFINITIONS	4
3.	ENFORCEMENT	5
PART B:	GENERAL CONDITIONS.....	5
PART C:	CONDITIONS APPLYING TO SECURITY	7
PART D:	CONDITIONS APPLYING TO THE USE OF WATERS AND WATER MANAGEMENT PLANS	7
PART E:	CONDITIONS APPLYING TO THE DEPOSIT OF WASTE AND WASTE MANAGEMENT	8
PART F:	CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION	9
PART G:	CONDITIONS APPLYING TO OPERATIONS AND MAINTENANCE	11
PART H:	CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING.....	12
PART I:	CONDITIONS APPLYING TO MONITORING	13
PART J:	CONDITIONS APPLYING TO CLOSURE AND RECLAMATION	14
SCHEDULES		15
Schedule A:	Definitions	16
Schedule B:	Annual Reporting Requirements	19
Schedule I:	Conditions Applying to Monitoring	20



Licence No: 3AM-RUT2035

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

**GOVERNMENT OF NUNAVUT,
DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES**

(Licensee)

P.O. BOX 379, Pond Inlet, NU X0A 0S0

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use Water or deposit Waste for a period subject to restrictions and conditions contained within this Licence:

Licence Number / Type: **3AM-RUT2035 / TYPE "A"**

Water Management Area: **BATHURST AND CORNWALLIS ISLANDS
WATERSHED (55)**

Location: **RESOLUTE BAY, CORNWALLIS ISLAND,
QIKIQTANI REGION, NUNAVUT**

Classification: **MUNICIPAL UNDERTAKING**


Purpose: **USE OF WATERS AND DEPOSIT OF SEWAGE**

Quantity of Water not to be
Exceeded: **217,000 CUBIC METRES ANNUALLY**

Date Licence Issuance: **DECEMBER 17, 2020**

Expiry of Licence: **DECEMBER 16, 2035**

This Licence issued (**Motion Number: 2020-15-P21-05**) and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.



Lootie Tomasié
Chairman
Nunavut Water Board

APPROVED

BY:



Daniel Vandal

Minister of Northern Affairs

**APPROVAL
DATE:**

JAN 29 2021



PART A: SCOPE, DEFINITIONS, AND ENFORCEMENT

1. SCOPE

1. This Type "A" Water Licence No: 3AM-RUT2035 ("Replacement Licence" or "Licence") authorizes the Government of Nunavut, Department of Community and Government Services ("GN-CGS" or "Licensee"), to use Water and deposit Sewage through the Utilidor System at the Hamlet of Resolute Bay in support of a Municipal undertaking, as classified under Schedule 1 of the *Regulations*, located within the Hamlet's municipal boundaries at the following approximate geographic coordinates:

Undertaking	Latitude	Longitude
Municipal	74° 43' 01" N	94° 58' 10" W

The scope of activities, works, and undertakings authorized in accordance with the terms and conditions of this Replacement Licence is as follows:

- a. Withdrawal of Water from Char Lake to support community needs;
 - b. Continued operation and maintenance of the following municipal facilities:
 - Water Treatment and Supply Facilities, including:
 - Pump station at Char Lake,
 - Water intake pipes;
 - Water Storage Tank at Signal Hill;
 - Water Treatment Plant at Signal Hill;
 - Utilidor System;
 - Sewage Disposal Facility;
 - c. Construction and operation of the Wastewater Treatment Plant.
2. This Licence is issued subject to conditions contained herein with respect to the use of Waters 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 *Act*, or other statutes imposing more stringent conditions relating to the quantity, type or manner 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
 3. Compliance with the terms and conditions of this Licence does not absolve the Licensee from the responsibility for compliance with all applicable legislation, guidelines, and directives.

2. DEFINITIONS

1. The Licensee shall refer to [Schedule A](#) for definitions of terms used in this Licence.



3. ENFORCEMENT

1. Failure to comply with this Licence shall be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*.
2. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*.
3. For the purpose of enforcing the terms and conditions of this Licence with respect to the use of Water and deposit or Discharge of Waste in Waters, Inspectors appointed under the *Act*, hold all powers, privileges, and protections that are conferred upon them by the *Act* or by other applicable laws.

PART B: GENERAL CONDITIONS

1. The Licensee shall file, with the Board for review, no later than the 31st of March of the year following the calendar year being reported, an Annual Report formulated in accordance with the requirements under [Schedule B](#) of this Licence.
2. The Licensee shall maintain a copy of this Licence at the Municipal Office, Water Treatment and Supply Facilities, and the future Waste Treatment Plant at all times.
3. The Licensee shall file an application for renewal or amendment of this Licence at least one (1) year prior to the Licence expiry or requested amendment.
4. The Licensee shall install, operate, and maintain the meters, devices or other appropriate methods for measuring the volumes of Water used and Waste discharged or deposited to the satisfaction of an Inspector.
5. The Licensee shall post the necessary signs to identify the stations of the Monitoring Program included under [Schedule H](#) of this Licence. All signage shall be in the Official Languages of Nunavut.
6. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted cannot be undertaken without subsequent written approval and/or directions from the Board. The Board may alter or modify a Plan if necessary to achieve legislative objectives and will notify the Licensee in writing of acceptance, rejection, or alteration of the Plan.
7. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as accepted by the Board or approved by the Board in writing.
8. The Licensee shall, within thirty (30) days of notification or within the timeframe specified by the Board, submit for review and/or the Board's approval revisions to any plan that is unacceptable to the Board.



9. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of the Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board shall also become part of the Licence. All relevant terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
10. The Licensee shall review the Plans or Manuals referred to in this Licence as required by changes in operation and/or technology and modify the Plans/Manuals accordingly. Revisions to any Plan/Manual shall be submitted in the form of an addendum to be included within the Annual Report required under Part B, Item 1, complete with the lists of revisions detailing where significant content changes are made.
11. The Licensee shall immediately report to the NWT/NU 24-Hour Spill Report Line (867-920-8130) any spills of Waste, which are reported to or observed by the Licensee, that may have resulted from the Water Supply and Treatment Facilities, Utilidor System, Sewage Disposal Facility and the future Wastewater Treatment Plant.
12. Any communication with respect to this Licence shall be made in writing to the attention of:

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
13. Any notice made to an Inspector shall be made in writing to the attention of:

Water Resources Officer
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445
14. Unless otherwise directed by the Board in writing, the Licensee shall submit to the Board one (1) electronic copy of all reports, studies, and Plans generated for the works, activities, and undertakings under this Licence. All Reports, studies or Plans submitted to the Board by the Licensee shall include an executive summary in English, Inuktitut, and French.
15. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received by the Board and maintain on file a copy of the acknowledgment of receipt issued by the Manager of Licensing or his/her designate.



16. This Licence is assignable as provided for in section 44 of the *Act*.
17. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.
18. The Schedules attached to this Licence provide details regarding the requirements associated with specific items in the main body of the Licence and are included in the Schedule to provide greater clarity and as an aid to interpretation for the Licensee. If the Board subsequently determines that an item in any of the Schedules requires revision in order to better reflect the intent and objectives of the Licence, the Board may at its discretion, and upon consulting and providing written notice to the Licensee and interested parties, revise the Schedule accordingly. Unless the Board directs otherwise, such revision may not necessarily be considered as an "Amendment" to the Licence.
19. Unless otherwise stated, references in the Licence to any specific legislation, policy, guideline or other regulatory requirement are deemed to refer to the regulatory requirement as may be amended or as may be expressly replaced by successor legislation, policy, guidelines or other regulatory requirements after the Licence is approved by the Minister.

PART C: CONDITIONS APPLYING TO SECURITY

1. The Licensee is not required to post reclamation security for the activities, works, and undertakings authorized under this Licence.

PART D: CONDITIONS APPLYING TO THE USE OF WATERS AND WATER MANAGEMENT PLANS

1. The Licensee shall withdraw Water for the Municipal Undertaking from Char Lake at Monitoring Program Station RUT-1, using the Water Treatment and Supply Facilities or as otherwise approved by the Board in writing.
2. The annual quantity of Water used for all purposes from Char Lake shall not exceed two hundred and seventeen thousand (217,000) cubic metres per annum or as otherwise approved by the Board in writing.
3. The Licensee shall, within ninety (90) days of approval of this Licence, install the appropriate flow-metering equipment required to accurately record the quantity of Water withdrawn from Char Lake.
4. The Licensee shall equip all freshwater intake structures with screens of appropriate mesh size that meet the requirements of Fisheries and Oceans Canada's (DFO) *Freshwater Intake End-of-Pipe Fish Screen Guidelines* (1995 or the most current) so as to prevent the entrainment of fish and control Water withdrawal rates such that fish do not become impinged within the screens.



5. The Licensee, during the term of the Licence, shall complete and submit to the Board for review at least two Hydrological Studies of Char Lake: the first one within seven (7) years from the approval of this Licence and the second one at least one (1) year prior to the Licence expiry date. These Hydrological Studies should address all relevant concerns raised by the members of the public during the Public Hearing associated with the sustainability of Char Lake and including, at a minimum, details on how the projected Water withdrawal rates will effect the volume of Water stored in Char Lake and the sustainability of such Water withdrawals.
6. 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.
7. The Licensee shall not cause erosion to the banks of any body of Water and shall provide the necessary controls to prevent such erosion.
8. The Licensee shall implement necessary measures to control sediment and erosion prior to and during operations to prevent entry of sediments into Water.
9. The Licensee shall maintain the Water Treatment and Supply Facilities in accordance with applicable guidelines, procedures, and regulations and to the satisfaction of an Inspector.

PART E: CONDITIONS APPLYING TO THE DEPOSIT OF WASTE AND WASTE MANAGEMENT

1. The Licensee shall direct all Sewage to the Sewage Disposal Facility, or as otherwise approved by the Board in writing. Upon commissioning of the Wastewater Treatment Plant (WWTP), the Licensee shall direct all Sewage to the WWTP unless otherwise approved by the Board in writing.
2. The Licensee shall establish/ maintain the relevant monitoring stations for the facilities authorized under this Licence in accordance with [Schedule H](#).
3. If Wastewater flows are greater than 600 Lcd, all Effluent discharged from the Sewage Disposal Facility at Monitoring Program Station RUT-2 shall not exceed the following Effluent quality limits, and/ or any new applicable discharge criteria developed under territorial or federal legislation:

Parameter	Maximum Concentration of Any Grab Sample
Biochemical Oxygen Demand (BOD ₅)	80 mg/L
Total Suspended Solids (TSS)	70 mg/L
Fecal Coliforms	1.6 x 10 ⁶ CFU/100 mL
pH	Between 6 and 9
Oil and grease	No visible sheen



4. If Wastewater flows are between 150 and 600 Lcd, all Effluent discharged from the Sewage Disposal Facility at Monitoring Program Station RUT-2 shall not exceed the following Effluent quality limits, and/ or any new applicable discharge criteria developed under territorial or federal legislation:

Parameter	Maximum Concentration of Any Grab Sample
Biochemical Oxygen Demand (BOD ₅)	120 mg/L
Total Suspended Solids (TSS)	80 mg/L
Fecal Coliforms	1.8 x 10 ⁶ CFU/100 mL
pH	Between 6 and 9
Oil and grease	No visible sheen

5. All Effluent discharged from the Wastewater Treatment Plant (WWTP) at Monitoring Program Station RUT-2a, once the WWTP is commissioned and operational, shall not exceed the following Effluent quality limits, and/or any applicable discharge criteria developed under territorial or federal legislation:

Parameter	Maximum Average Concentration (mg/L)
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	25
Total Suspended Solids (TSS)	25
Total Residual Chlorine (TRC)	2 x 10 ⁻²
Ammonia-N at 15°C +/- 1°C	1.25
pH	Between 6 and 9
Oil and grease	No visible sheen

6. The Effluent discharged from the Wastewater Treatment Plant (WWTP) at Monitoring Program Station RUT-2a, once the WWTP is commissioned and operational, shall be demonstrated to be Acutely non-Lethal, as stipulated in [Schedule H](#) of the Licence.
7. The Licensee shall maintain all licensed facilities to the satisfaction of an Inspector.
8. The Licensee shall dispose of all Waste, including construction Waste, Hazardous Waste, waste oil generated through the course of the operation at a licensed Waste disposal facility.
9. The Licensee shall maintain records of all Waste removed from site and records of confirmation of proper disposal of removed Waste, including the confirmation letter from the receiving Waste disposal facility. These records shall be made available to an Inspector or the Board upon request.

PART F: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION

1. The Licensee shall submit to the Board for approval, sixty (60) days prior to commencing



- construction of any facilities or infrastructure authorized under this Licence, for construction design report and drawings stamped by a Professional Engineer registered in Nunavut.
2. The Licensee shall submit to the Board for approval, at least sixty (60) days prior to initiating construction of the Wastewater Treatment Plant (WWTP), a detailed Design Report for the WWTP that includes design drawings, rationale for system selection, assurance that the system will be feasible to install and operate, information on Sewage sludge management, expected Effluent quality limits, and all other relevant information. This Design Report shall take into consideration the receiving Water quality objectives provided in the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories* (GNWT, 1992) and/or any applicable guidelines, and the intervener's comments and recommendations made during the licensing process, including, at a minimum, the treatment targets referenced in Part E, Item 5.
 3. The Licensee may, without written consent from the Board, carry out Modifications to the facilities or infrastructure authorized under this Licence, provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications are consistent with the NPC Land Use Planning Conformity Determination and the NIRB Screening Decision;
 - c. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - 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 F, Item 2 have not been met can be carried out only with written approval from the Board.
 4. The Licensee shall, within ninety (90) days from completion of Modification or construction of facilities and/or infrastructure associated with this Undertaking, submit to the Board a Construction Summary Report prepared by a Professional Engineer that includes, among other relevant information, as-built drawings, documentation of field decisions that deviated from original plans, and any information used to support these decisions.
 5. The Licensee shall implement measures to ensure that all materials used in the construction of the facilities or infrastructure associated with the Undertaking are free of contaminants, to the extent that they do not cause harmful or significant effects to Water.
 6. The Licensee shall, if contamination of surface and/or groundwater is encountered during construction and excavation, notify the Inspector immediately and implement the Spill Contingency Plan, referred to in Part H, Item 1.



7. The Licensee shall develop and implement measures necessary to prevent and mitigate erosion and/ or the release of sediment into Water during the construction of the Wastewater Treatment Plant or during any construction activities associated with the Undertaking.
8. 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.
9. With respect to earthworks, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the Water.
10. The construction or disturbance of any stream/lake bed or banks of any definable watercourse are not permitted, unless authorized by the Board in writing.

PART G: CONDITIONS APPLYING TO OPERATIONS AND MAINTENANCE

1. The Board has approved, with the issuance of this Licence, the Manual entitled "*New Water and Sewer System, Resolute Bay, Nunavut, Operation and Maintenance Manual*", dated September 2016 that was submitted as part of the Application. The Licensee shall submit, within sixty (60) days following the completion of upgrades to the Water Treatment and Supply Facilities, an updated version of this Manual for Board review to incorporate the information on the upgraded facilities.
2. The Licensee shall submit to the Board for approval, at least sixty (60) days prior to commissioning of the Wastewater Treatment Plant (WWTP), an Operation and Maintenance Manual for the WWTP that incorporates the requirements for Sewage sludge management and the Monitoring Program Stations descriptions and locations. This manual shall be prepared 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* (GNWT, 1996) and/or any applicable guidelines.
3. The Licensee shall review all Manuals referred to in this Part as required by changes in operation and/or technology and modify accordingly. Revisions are to be submitted in the form of an Addendum to be included with the Annual Report, unless directed otherwise by the Board or an Inspector.
4. The Licensee shall maintain all facilities approved under this Licence in accordance with applicable guidelines, procedures, and regulations and to the satisfaction of an Inspector.



5. An inspection of all engineered facilities associated with this License shall be carried out at least once annually, in July or August, by an Engineer (Civil, Municipal or Geotechnical). 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. The Licensee shall perform more frequent inspections of the engineered facilities at the request of an Inspector.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Licensee shall implement the Plan entitled "*Spill Contingency Plan, Hamlet of Resolute Bay, Resolute Bay, Nunavut*", dated September 24, 2020, that was submitted as additional information with the Application and has been approved by the Board with the issuance of the Licence.
2. The Licensee shall prevent any chemicals, petroleum products or Wastes associated with the activities under this Undertaking 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. The Licensee shall, subject to Section 16 of the *Regulations*, report any unauthorized deposits of Waste or foreseeable unauthorized deposits of Waste and/or Discharges of Effluent, and:
 - a. employ the appropriate contingency measures outlined in the Spill Contingency Plan referred to in Part H, Item 1; take whatever steps are immediately practicable to protect human life, health and the environment;
 - b. report the incident immediately to the NWT/NU 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, within thirty (30) days after initially reporting the event, a detailed report 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 any preventative measures to be implemented.
5. The Licensee shall, in addition to Part H, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU 24-Hour Spill Line, if the release is near or into a Water body.



PART I: CONDITIONS APPLYING TO MONITORING

1. The Licensee shall monitor the Water Treatment and Supply Facility and Waste Disposal Facilities authorized under this Licence in accordance with requirements included under [Schedule H](#).
2. The Licensee shall determine, in consultation with the Inspector, the GPS coordinates of all locations where sources of Water are utilized for all purposes and Wastes associated with the Undertaking are deposited at all Monitoring Program Stations, and provide these coordinates within the Annual Report.
3. All sampling, sample preservation and analyses required under [Schedule H](#) shall be conducted in accordance with methods prescribed in the most recent edition of "*Standard Methods for the Examination of Water and Wastewater*", or by such other methods as approved by the Board in writing.
4. All analyses shall be performed at a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
5. The Licensee shall implement the Plan entitled "*Environmental Management Plan, Char Lake Pump House and Signal Hill Water Treatment Plant, Resolute Bay, Nunavut*", dated August 7, 2020, that was submitted as additional information with the Application and has been approved by the Board with the issuance of the Licence. The Licensee shall submit for Board review, within sixty (60) days from the approval of this Licence, an updated version of this Plan to describe the turbidity monitoring that is being undertaken during in-water works, as requested by the ECCC during the Public Hearing.
6. The Licensee shall implement the Plan entitled "*Quality Assurance and Quality Control Plan, Utilidor System, Hamlet of Resolute Bay, Resolute Bay, Nunavut*", dated October 18, 2020, that was submitted as additional information with the Application and has been accepted by the Board with the issuance of the Licence.
7. The Licensee shall annually review the QA/QC Plan submitted under Part I, Item 5 and modify it as necessary. Revised Plan shall be submitted to the NWB with an approval letter from an accredited laboratory that meets standards set in Part I, Items 3 and 4.
8. The Licensee shall include all of the data and information required by the Monitoring Program under [Schedule H](#) within the Annual Report required under Part B, Item 1 of the Licence, or as otherwise requested by an Inspector and/or the Board.
9. Additional Monitoring may be requested by the Board and/or the Inspector.
10. The Monitoring Program and compliance dates specified in the Licence may be modified at the discretion of the Board in writing and do not necessarily constitute an Amendment to the Licence as defined in the *Act*.



PART J: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION

1. The Licensee shall implement the Plan entitled "*Decommissioning Plan, Char Lake Pump House and Signal Hill Water Treatment Plant, Resolute Bay, Nunavut*", dated September 25, 2020, that was submitted as additional information with the Application and has been approved by the Board with the issuance of the Licence.
2. The Licensee shall, at least sixty (60) days prior to decommissioning of the upgraded Water Treatment and Supply Facilities, submit to the Board for review an updated version of the Plan referred to in Part J, Item 1 to include the following:
 - a. Reclamation details on the old intake lines from Char Lake to the Pump house and from the Pump House to Signal Hill;
 - b. Specific measures to prevent mobilization of contaminants (petroleum hydrocarbons resulting from a historic spill from the fuel tank) into Char Lake, as indicated by the Inspector and required under the previous Water Licence; and
 - c. Details regarding contaminated materials management.
3. The Licensee shall, at least six (6) months prior to abandoning any facilities or upon submission of final design drawings for the construction of new facilities to replace the existing ones, submit to the Board for approval in writing a Closure and Reclamation Plan for the facilities being decommissioned. The Plan shall be prepared by an Engineer in accordance with the industry's best practices and relevant guidelines and shall incorporate, where applicable, the following information:
 - a. Facilities being abandoned;
 - b. Maps delineating all disturbed areas and site facilities;
 - c. Environmental conditions existing before the use of the site;
 - d. Remediation objectives;
 - e. Any sites affected by waste spills and measures taken to remediate these sites;
 - f. An implementation schedule;
 - g. Type and source of cover materials;
 - h. Future area use;
 - i. Hazardous wastes;
 - j. Financing of the restoration costs.
4. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
5. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
6. Areas that have been contaminated by hydrocarbons shall be reclaimed to meet objectives as outlined in the *Government of Nunavut's Environmental Guideline for Site Remediation*, January 2009. 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.



SCHEDULES

Schedule A: Scope, Definitions, and Enforcement

Schedule B: General Conditions

Schedule C: No Schedule for Security

Schedule D: No Schedule for Use of Water and Water Management Plans

Schedule E: No Schedule for Deposit of Waste and Waste Management

Schedule F: No Schedule for Modifications and Construction

Schedule G: No Schedule for Operations and Maintenance

Schedule H: No Schedule for Spill Contingency Planning

Schedule I: Monitoring

Schedule J: No Schedule for Closure and Reclamation



Schedule A: Definitions

In this Licence No: 3AM-RUT2035:

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

“**Addendum**” means the supplemental text that is added to a full plan, manual, or report, usually included at the end of the document and is not intended to require a full resubmission of the revised report. It may also be considered as an appendix or supplement;

“**Amendment**” means a change to any terms and conditions of this Licence through application to the NWB, requiring a change, addition, or deletion of specific terms and conditions of the Licence not considered as a modification;

“**Annually**” means, in the context of monitoring frequency, one sampling event occurring every 365 days with a minimum of 200 days between sampling events;

“**Application**” means, for the purposes of this License, the totality of the NWB Public Register opened as a result of the filing of the application to replace and amend expired Water Licence No: 3BM-RUT1520;

“**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 Article 13 of the *Nunavut Agreement* and under section 14 of the *Act*;

“**Discharge**” means the release of any Water or Waste to the receiving environment;

“**Effective Date**” means the date on which the Minister of Northern Affairs approves the Licence;

“**Effluent**” means treated or untreated liquid Waste material that is Discharged into the environment from the site water management facilities 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*;

“**Engineered Structure**” means any facility, designed and approved by a Professional Engineer who is registered with the Association of Professional Engineers, Geologists and Geophysicists of Nunavut;

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



“**Greywater**” means the component of Effluent produced from domestic use (i.e. washing, bathing, food preparation and laundering), excluding Sewage;

“**Hazardous Waste**” means materials or contaminants categorized as dangerous goods under the *Transportation of Dangerous Goods Act* (1992), no longer used for their original purpose and intended for recycling, treatment, disposal or storage at appropriate facilities;

“**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*;

“**Licence**” means this Type “A” Water Licence No: 3AM-RUT2035, issued by the Nunavut Water Board to the Government of Nunavut, Department of Community and Government Services (“GN-CGS”) in accordance with the *Act*;

“**Licensee**” means the entity to whom Licence No: 3AM-RUT2035 is issued or assigned;

“**Minister**” means the Minister of Northern Affairs;

“**Modification**” means an alteration to a physical work that may introduce a new structure or eliminates an existing structure and does not alter the purpose or function of the work;

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

“**Monthly**” means, in the context of monitoring frequency, one sampling event occurring within calendar month with a minimum of twenty-one (21) days between sampling events;

“**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;

“**Quality Assurance / Quality Control (QA/QC)**” Quality Assurance means the system of activities designed to better ensure that quality control is done effectively; Quality Control means the use of established procedures to achieve standards of measurement for the three principle components of quality: precision, accuracy and reliability;

“**Regulations**” means the *Nunavut Waters Regulations* (SOR/2013-669);

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

“**Sewage Disposal Facility**” means the facility, comprising the Macerator unit and the outfall pipe to the shoreline in the Hamlet of Resolute Bay;



"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;

"Surface Drainage" means all surface waters resulting from the flow over, through or out of an operations area and is collected by means of Engineered structures;

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

"Undertaking or Undertakings" means an undertaking or undertakings in respect of which Water is to be used or Waste is to be deposited, as classified in Schedule 1 of the *Regulations*;

"Use" means use as defined in section 4 of the *Act*;

"Utilidor" means the piped distribution system designed to transport treated water from the Water Treatment and Supply Facilities to structures and dwellings in the Hamlet of Resolute Bay and the piped collection system designed to collect sewage from structures and dwellings and transport to the Sewage Disposal Facility, as described in the Application;

"Waste" means Waste as defined in section 4 of the *Act*;

"Wastewater" means the water generated by site activities or originates on-site that requires treatment or any other water management activity;

"Wastewater Treatment Plant" means the future Treatment Plant that will replace current Sewage Disposal Facility and will receive Sewage from both the Hamlet of Resolute Bay and the Airport, as described in the Application;

"Water or Waters" means water as defined in section 4 of the *Act*;

"Water Treatment and Supply Facilities" means the engineered facilities and appurtenances designed and constructed for the withdrawal, storage, treatment and distribution of fresh water for domestic purposes, which comprises the area and associated intake infrastructure at Char Lake, Char Lake Pump Station, Supply Line from Char Lake to the Water Storage Tank at Signal Hill, and the Signal Hill Water Treatment Plan, as described in the Application.



Schedule B: Annual Reporting Requirements

The Annual Report referred to in Part B, Item 1, shall include the following:

- a. The monthly and annual quantities in cubic metres of fresh Water withdrawn from Char Lake at Monitoring Station No: RUT-1;
- b. The monthly and annual quantities in cubic metres of any Discharges to and from the Sewage Disposal Facility and the future Wastewater Treatment Plant at Monitoring Stations RUT-2 and RUT-2a, respectively;
- c. The monthly and annual quantities in cubic metres of sludge removed from the Wastewater Treatment Plant;
- d. A summary report which includes all data and information generated under the Monitoring Program, including the QA/QC program, in electronic formats acceptable to the Board;
- e. A summary of modifications and/or major maintenance work carried out on the potable Water Treatment and Supply and Sewage Disposal Facilities (as well as the future Wastewater Treatment Plant), including all associated structures;
- f. A progress report and revisions (if applicable) to any studies requested by the Board that relate to Waste management, Water use or reclamation and a brief description of any future studies planned by the Licensee including, a non-technical executive summary for the general public, translated into Inuktitut;
- g. Any revisions required, in the form of addenda, to Plans, Manuals and Reports approved under the Licence;
- h. A list and description, including volumes, of all unauthorized discharges, spills and summaries of follow-up action taken;
- i. A summary of any closure and reclamation work undertaken and an outline of any work anticipated for the next year, including any changes to implementation and scheduling;
- j. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector;
- k. A brief update on the implementation plan of all facilities within the scope of this Licence including changes projected implementation;
- l. A summary of any studies, reports and plans requested by the Board that relate to Waste disposal, Water use or reclamation and a brief description of any future studies planned; and
- m. Any other details on the use of Water or Waste disposal requested by the Board by November 1st of the year being reported.



Schedule I: Conditions Applying to Monitoring

Table 1 – Water Quality Parameters

Test Group	Analytical Parameter	Unit of Measurement
Effluent (E)	pH (field and lab)	NA
	Conductivity (field and lab)	µS/cm
	Temperature (field)	°C
	Total Suspended Solids (TSS)	mg/L
	Biochemical Oxygen Demand	mg/L
	Fecal Coliform	CFU/100 mL
	Nitrate-Nitrite	mg/L
	Ammonia Nitrogen	mg/L
	Sulphate	mg/L
	Chloride	mg/L
	Total Hardness	mg/L
	Total Alkalinity	mg/L
	Total Phenols	mg/L
	Total Organic Carbon - TOC	mg/L
Acute Lethality (AL)	Based on Environment and Climate Change Canada’s Acute Lethality of Effluents to Rainbow Trout (as per Environment Canada’s Environmental Protection Series Biological Test Method EPS/1/RM/13 Second Edition December 2000 (with May 2007 amendments)	“Pass” / “Fail”
ICP Metals Scan (Total) (Me)	Al, As, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Na, Ni, Pb, Zn	mg/L
Flow (F)	Volume	m ³



Table 2 - Water Quality Monitoring Criteria

Station ID	Description	Status	Parameter	Testing / Measurement Frequency	Reporting Frequency
RUT-1	Raw Water Supply prior to treatment	Active	F	Daily	Annually
RUT-2	Effluent - Sewage Disposal Facility	Active	F, E, AL, Me	Quarterly	Annually
RUT-2a	Effluent - Wastewater Treatment Plant	To be established	F, E, AL, Me	Monthly	Annually