

April 23, 2010

Attention: Debbie Raddi
Senior Administrative Officer
Hamlet of Tuktoyaktuk
BOX 120
Tuktoyaktuk, NT
X0E 1C0

File: N7L3-0714

Dear Ms. Raddi:

ISSUANCE OF TYPE B WATER LICENCE RENEWAL

Attached is Water Licence N7L3-0714 granted by the Northwest Territories Water Board (the Board) in accordance with the *Northwest Territories Waters Act*. A copy of this Licence has been filed in the Public Registry at the NWTWB offices. Water Licence N7L3-1525 has been approved for a period of three years commencing April 23rd, 2010 and expiring November 20, 2013. Also attached are the general procedures for the administration of Licences in the Northwest Territories. Please review these carefully and address any questions to the Board's office.

This letter, with attached procedures, all Inspection Reports and correspondence related thereto are part of the Public Registry and are intended to keep all interested parties informed of the manner in which the Licence requirements are being met. All Public Registry material will be considered if an amendment to the Licence is requested.

The full cooperation of Hamlet of Ulukhaktok is anticipated and appreciated. Should you have any further questions or concerns, please telephone the Northwest Territories Water Board at (867) 678-2942 or e-mail at info@nwtwb.com.

Yours sincerely,



Eddie Dillon
Chair

Attachments

Copied to: Carol Mills, Manager, Water Resources, INAC;
Conrad Baetz, North Mackenzie District Office- INAC

NORTHWEST TERRITORIES WATER BOARD

Pursuant to the *Northwest Territories Water Act* and Regulations, the Northwest Territories Water Board, hereinafter referred to as the Board, hereby grants to:

Hamlet of Tuktoyaktuk

(Licensee)

of P.O. Box 120, Tuktoyaktuk, NT, X0E 1C0
(Mailing Address)

Hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the *Northwest Territories Waters Act* and Regulations made thereunder and subject to and in accordance with the conditions specified in this Licence.

Licence Number: N7L3-0714 (RENEWAL)

Licence Type: "B"

Water Management Area: NORTHWEST TERRITORIES 07

Location: Hamlet of TUKTOYAKTUK, Northwest Territories

Purpose: WATER USE AND WASTE DISPOSAL FOR A MUNICIPAL UNDERTAKING

Quantity of water **not to be exceeded**: 100,000 CUBIC METRES

Effective Date of Licence: April 23rd, 2010

Expiry Date of Licence: November 20th, 2013

This Licence issued and recorded at Yellowknife includes and is subject to the annexed conditions.

NORTHWEST TERRITORIES WATER BOARD



Witness



Chair

**GENERAL PROCEDURES FOR THE ADMINISTRATION OF LICENCES
ISSUED UNDER THE NORTHWEST TERRITORIES WATERS ACT
IN THE NORTHWEST TERRITORIES**

1. At the time of issuance, a copy of the Licence is placed on the Water Register in the Office of the Northwest Territories Water Board in Yellowknife, and is then available to the public.

2. To enforce the terms and conditions of the Licence, the Minister of Indian Affairs and Northern Development has appointed Inspectors in accordance with Section 35(1) of the *Northwest Territories Waters Act*. The Inspectors coordinate their activities with officials of the Water Resources Division of the Department of Indian Affairs and Northern Development. The Inspector responsible for Licence No. N7L3-0714 is located in the North Mackenzie - Inuvik District Office.

3. To keep the Water Board and members of the public informed of the Licensee's conformity to Licence conditions, the Inspectors prepare reports which detail observations on how each item in the Licence has been met. These reports are forwarded to the Licensee with a covering letter indicating what action, if any, should be taken. The inspection reports and covering letters are placed on the public Water Register, as are any responses received from the Licensee pertaining to the inspection reports. It is therefore of prime importance that you react in all areas of concern regarding all inspection reports so that these concerns may be clarified.

4. If the renewal of Licence No. N7L3-0714 is contemplated it is the responsibility of the Licensee to apply to the Water Board for renewal of the Licence. The past performance of the Licensee, new documentation and information, and points raised during a public hearing, if required, will be used to determine the terms and conditions of any Licence renewal. Please note that if the Licence expires and another has not been issued, then water and waste disposal must cease, or you, the Licensee, would be in contravention of the *Northwest Territories Waters Act*. It is suggested that an application for renewal of Licence No. N7L3-0714 be made at least eight months in advance of the Licence expiry date.

5. If, for some reason, Licence No. N7L3-0714 requires amendment, then a public hearing may be required. You are reminded that applications for amendments should be submitted as soon as possible to provide the Water Board with ample time to go through the amendment process. The process may take up to six (6) months or more depending on the scope of the amendment requested.

6. Specific clauses of your Licence make reference to the Board, Analyst or Inspector. The contact person, address, phone and fax number of each is:

BOARD: Executive Director
Northwest Territories Water Board
Box 2531
INUVIK, NT X0E 0T0
Phone No: (867) 678-2942
Fax No: (867) 678-2943

Executive Director
Northwest Territories Water Board
Box 1326
YELLOWKNIFE, NT X1A 2N9
Phone No: (867) 765-0106
Fax No: (867) 765-0114

ANALYST: Analyst
Water Laboratory
Department of Indian Affairs
and Northern Development
Box 1500, 4601 - 52nd Avenue
YELLOWKNIFE, NT X1A 2R3
Phone No: (867) 669-2780
Fax No: (867) 669-2718

INSPECTOR: Inspector
North Mackenzie-Inuvik District Office
Department of Indian Affairs
and Northern Development
P.O. Box 2100
INUVIK, NT X0E 0T0
Phone No: (867) 777-3361
Fax No: (867) 777-2090

PART A: SCOPE AND DEFINITIONS

1. Scope

This Licence entitles the Incorporated Hamlet of Tuktoyaktuk to use water and dispose of Waste for municipal undertakings at Tuktoyaktuk, Latitude 69°27' North and Longitude 133°02' West, Northwest Territories.

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 *Northwest Territories Waters 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 automatically amended to conforming to such Regulations.

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.

This Licence is issued subject to the conditions contained herein with respect to the Use of Waters as prescribed in Section 8 of the Act and the Deposit of Waste to any Waters as prescribed in Section 9 of the Act.

2. Definitions

In this Licence: **N7L3-0714**

"Act" means the *Northwest Territories Waters Act*;

"Analyst" means an Analyst designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

"Average Concentration" means the discrete average of up to four consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program";

"Average Concentration for Faecal Coliforms" means the running geometric mean of up to four consecutive analytical results submitted to the Board in

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accordance with the sampling and analysis requirements specified in the “Surveillance Network Program”;

“**Bagged Toilet Waste Disposal Facilities**” comprises the area and associated structures designed to contain bagged Toilet Waste (honey bags);

“**Board**” means the Northwest Territories Water Board established under Section 10 of the *Northwest Territories Waters Act*;

“**Freeboard**” means the vertical distance between water line and the lowest elevation of the effective water containment crest on a dam or dyke’s upstream slope;

“**Geotechnical Engineer**” means a professional engineer registered with the Northern Association of Professional Engineers and Geoscientist and whose principal field of specialization is the design and construction of earthworks in a permafrost environment;

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

“**Inspector**” means an Inspector designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*;

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

“**Minister**” means the Minister of Indian Affairs and Northern Development;

“**Modification**” means an alteration to a physical work that introduces a new structure or replaces an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

“**Pump-out Sewage**” means all Toilet Wastes and/or Greywater collected by means of a vacuum truck for disposal at an approved facility;

“**Regulations**” means Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*;

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

“**Sewage Disposal Facilities**” comprises the area and engineered structures designed to contain Sewage;

“**Solid Waste Disposal Facilities**” comprises the area and associated structures designed to contain solid Waste including structures used to contain surface runoff;

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

“Waste” means Waste as defined by Section 2 of the *Northwest Territories Waters Act*;

“Waste Disposal Facilities” means all facilities designated for the disposal of Waste and include the Sewage Disposal Facilities, Solid Waste Disposal Facilities, and Bagged Toilet Wastes Disposal Facilities;

“Water Supply Facilities” means all facilities designed to collect, treat and supply water for municipal purposes; and

“Waters” means any Waters as defined by Section 2 of the *Northwest Territories Waters Act*;

PART B: GENERAL CONDITIONS

1. The Licensee shall file an Annual Report with the Board and an Inspector no later than April 30th of the year following the calendar year reported that shall contain the following information:
 - a. The monthly and annual quantities in cubic metres of fresh water obtained from all sources;
 - b. the monthly and annual quantities of each and all Wastes discharged;
 - c. a summary of the monthly and annual quantities of hazardous Waste stored on site and transported off site;
 - d. the monthly and annual quantities of solid Waste (e.g. sludge) removed from the Sewage Disposal Facilities for disposal;
 - e. any problems, Modifications or repairs done to the Water Supply and Waste Disposal Facilities, including all associated structures;
 - f. tabular summaries of all data generated under the “Surveillance Network Program”;
 - g. a list of spills and unauthorized discharges;
 - h. an outline of any spill training and/or other operator training carried out;
 - i. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

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- j. a summary of any studies requested by the Board that relate to Waste disposal, water use, or reclamation, and a brief description of any future studies planned;
 - k. updates and/or revisions to the approved Spill Contingency Plan, Municipal Solid Waste Operations and Maintenance Plan, and Sewage Treatment Plan; and,
 - l. any other details on Waste disposal or water use requested by the Board by November 1st of the year being reported.
2. The Licensee shall comply with the “Surveillance Network Program” annexed to this Licence, and any amendment to the said “Surveillance Network Program” as may be made from time to time, pursuant to the conditions of this Licence.
3. The “Surveillance Network Program” and compliance dates specified in the Licence may be modified at the discretion of the Board.
4. The Licensee shall, within 60 days of the issuance of this Licence, submit to the Board for approval a map or drawing indicating the location of all Surveillance Network Program sampling stations.
5. The Licensee shall, within 60 days of issuance of the Licence, post signs in the appropriate areas to inform the public of Water Supply, Waste Disposal Facilities and the segregated temporary storage of Hazardous waste areas. All postings shall be located and maintained to the satisfaction of an Inspector.
6. Any meters, devices or other such methods used for measuring the volumes of water used or Waste disposed and discharged shall be installed, operated and maintained to the satisfaction of an Inspector.
7. The Licensee shall immediately report to the 24 Hour Spill Report Line (867 920-8130) any spills 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.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all water for human consumption from Kudlak Lake using the Water Supply Facilities or as otherwise approved by the Board.
2. The Licensee may obtain water from an alternate water supply for use on an emergency basis upon approval of an Inspector when it is not possible to obtain water from Kudlak Lake as stated in Part C, Item 1.

3. The yearly quantity of water used for all purposes shall not exceed 100,000 cubic metres.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall direct all Pump-out Sewage to the Sewage Disposal Facilities or as otherwise approved by the Board
2. All Sewage effluent discharged from the Sewage Disposal Facilities at "Surveillance Network Program" Station Number 0714-2 shall meet the following effluent quality standards:

Parameter	Maximum Concentration	Average
Faecal Coliforms	1 x 10 ⁴ CFU/100ml	
Biological Oxygen Demand (BOD ₅)	120.0	mg/L
Oil and Grease	5	mg/L
Total Suspended Solids (TSS)	180.0	mg/L

The Waste discharged shall have a pH between six (6) and nine (9) and no visible sheen of oil and grease.

3. The Licensee shall advise an Inspector at least ten (10) days prior to initiating and decant of the Sewage Disposal Facilities.
4. The Licensee shall ensure that the Sewage Disposal Facilities are maintained and operated in such a manner as to prevent structural failure.
5. The Licensee shall maintain the Sewage Disposal Facilities to the satisfaction of an Inspector.
6. A Freeboard limit of 1.0 metres or as recommended by a qualified Geotechnical Engineer and as approved by the Board, shall be maintained at all dykes and earthfill structures associated with the Solid Waste Disposal Facilities.
7. All Bagged Toilet Wastes (honey bags) shall be disposed of at the Bagged Toilet Waste Disposal Facilities to the satisfaction of an Inspector.
8. The Licensee shall dispose of all solid Wastes at the Solid Waste Disposal Facilities or as otherwise approved by the Board.

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9. The Licensee shall notify an Inspector at least thirty (30) days prior to any discharge of water from the Solid Waste Disposal Facilities.
10. The Licensee may commence the discharge of water from the Solid Waste Facilities upon receipt of an Inspector's approval.
11. Any discharge of water from the Solid Waste Disposal Facilities shall be conducted between September 15 and October 31. No discharge shall occur at any other time unless approved by the Inspector.
12. Any discharge of water from the Solid Waste Disposal Facilities shall not be conducted at the same time as the discharge of sewage effluent from the Sewage Disposal Facilities.
13. Any discharge of water from the Solid Waste Disposal Facilities shall not exceed a discharge rate of 350 cubic metres per hour.
14. Any discharge of water from the Solid Waste Disposal Facilities shall be discharged to the mouth of the small bay adjacent to the Solid Waste Disposal Facilities.
15. The Solid Waste Disposal Facilities discharge outlet shall be located ten (10) metres from the shoreline, at a minimum.
16. The Solid Waste Disposal Facilities discharge outlet shall be anchored to minimize drifting and shall be fitted with a diffuser.
17. Any discharge of water from the Solid Waste Disposal Facilities shall require the use of a floating intake.
18. The Licensee shall cease discharge of water from the Solid Waste Disposal Facilities immediately upon observing the discharge of turbid water.
19. All water discharged from the Solid Waste Disposal Facilities at "Surveillance Network Program" Station Number 0714-3 shall meet the following effluent quality criteria:

Sample Parameter	Maximum Average Concentration
Biological Oxygen Demand (BOD ₅)	120.0 mg/L
Total Suspended Solids (TSS)	180.0 mg/L
Polychlorinated Biphenyls (PCB)	25.0 µg/L
Oil and Grease	5.0 mg/L

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20. A Freeboard limit of 0.5 metres or as recommended by a qualified Geotechnical Engineer and as approved by the Board, shall be maintained at all dykes and earthfill structures associated with the Solid Waste Disposal Facilities.
21. The Licensee shall notify an Inspector when any contaminated soil or contaminated snow is deposited at the Solid Waste Disposal Facilities.
22. The Licensee shall contain all contaminated soil or contaminated snow in such a manner as to minimize the potential for migration of contaminants into any Waters, to the satisfaction of an Inspector.
23. The Licensee shall segregate and store hazardous Waste in a temporary storage area, to the satisfaction of an Inspector.
24. The Licensee shall not open burn solid or liquid Waste, with the exception of paper products, paperboard packaging and untreated wood in accordance with, for example, the guideline *Municipal Solid Wastes Suitable for Open Burning*, developed by the GNWT Department of Environment and Natural Resources.
25. The Licensee shall ensure that any unauthorized Wastes associated with the municipal undertaking do not enter any Waters.
26. The Licensee shall, by July 31st, 2013, submit an assessment of the effects of the Solid Waste Disposal Facilities on the small bay adjacent to the facilities, including, but not be limited to:
 - a. sampling and analysis of water before, during and after decanting from the Solid Waste Disposal Facilities;
 - b. sampling and analysis of sediments before and after decanting from the Solid Waste Disposal Facilities; and
 - c. sampling and analysis of fish, shellfish and benthic organisms.

PART E: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

1. The Licensee shall submit to the Board for approval by January 31st, 2011 a Spill Contingency Plan in accordance, for example, with the *Guidelines for Spill Contingency Planning, April 2007*, developed by INAC-Water Resources Division.
2. The Licensee shall submit to the Board for approval, by January 31st 2012, a Sewage Treatment Plan that includes the following:
 - a. specifications of the Sewage Treatment Facility including engineering drawings and design performance standards;
 - b. operations, maintenance and monitoring programs for the Sewage Treatment Facility including maintenance schedules (e.g. frequency of inspection of dams, dykes and drainage courses);

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- c. sludge management program including the disposal of sludge generated at the Sewage Treatment Facility; and
 - d. operator training standards and plans.
3. The Licensee shall submit to the Board for approval by June 30, 2012 a Municipal Solid Waste Operations and Maintenance Plan in accordance with , for example, the *Guideline for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories, April 2003* developed for The Department of Municipal and Community Affairs, Government of the Northwest Territories.
 4. The Licensee shall implement the Spill Contingency Plan, the Sewage Treatment Plan, and the Municipal Solid Waste Operations and Maintenance Plan as and when approved by the Board.
 5. The Licensee shall review the Spill Contingency Plan, the Sewage Treatment Plan, and the Municipal Solid Waste Operations and Maintenance Plan annually, and shall modify the plans as necessary to reflect changes in operation and technology or any other changes that may be required by an Inspector. The proposed changes shall be submitted to the Board for approval.

PART F: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written approval from the Board, carry out Modifications to the Water Supply Facilities or Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of either 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.
2. Modifications for which the conditions referred to in Part F, Item 1 have not been met may be carried out only with written approval from the Board.
3. The Licensee shall provide to the Board site plans of the Modifications referred to in Part F, Item 1 within ninety (90) days of completion of the Modifications.

PART G: CONDITIONS APPLYING TO CONSTRUCTION

1. Prior to construction of any dams, dykes or structures intended to contain, withhold, divert or retain water or Waste, other than as contemplated in an approved Spill Contingency Plan, the Licensee shall submit to the Board a rationale and design

drawings.

2. Construction of designed structures as described in Part G, Item 1, shall be carried out as approved by the Board.
3. As-built drawings of the dams, dykes or structures shall be stamped by a qualified engineer registered in the Northwest Territories and submitted to the Board within ninety (90) days of completion of construction.
4. Any fill material used in the construction of any structures as described in Part G, Item 1, shall be clean and free of contaminants.


PART H. 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 Water Supply, Sewage or Solid Waste Disposal Facilities. The Plan shall include, but not be limited to, the following:
 - a. contaminated site remediation;
 - b. the potential for groundwater contamination (leachate prevention);
 - c. consideration of altered drainage patterns;
 - d. type and source of cover materials;
 - e. future area use;
 - f. hazardous waste removal, transportation and disposal;
 - g. an implementation schedule; and,
 - h. maps delineating all disturbed areas, borrow material locations, and site facilities.
 - i. a restoration monitoring plan.
2. The Licensee shall implement the Plan specified in Part H, Item 1 as and when approved by the Board.

NORTHWEST TERRITORIES WATER BOARD



Chair



Witness

NORTHWEST TERRITORIES WATER BOARD

LICENSEE: Incorporated Hamlet of Tuktoyaktuk

LICENCE NUMBER: N7L3- 0714

EFFECTIVE DATE OF LICENCE: *****

EFFECTIVE DATE OF SURVEILLANCE NETWORK PROGRAM: *****

SURVEILLANCE NETWORK PROGRAM

A. Location of Sampling Stations

<u>Station Number</u>	<u>Description</u>
0714-1	Supply line to reservoir
0714-2	Sewage Disposal Facilities at or near the point of effluent discharge
0714-3	Water contained within the Solid Waste Disposal Facilities at or near the point of effluent discharge

B. Sampling and Analysis Requirements

1. Water at Station Number 0714-2 shall be sampled prior to, and once during each decant and analysed for the following parameters:

- BOD5
- CBOD5
- TSS
- pH
- Faecal Coliforms
- Oil and Grease

2. Water at Station Numbers 0714-2 and 0714-3 shall be inspected monthly during periods of flow for the presence of an oily sheen. If a sheen is detected a sample shall be collected and analysed for the presence of Oil and Grease.

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3. Water at Station Number 0714-3 shall be sampled prior to, and once during each discharge of Water from the Solid Waste Disposal Facilities,. Each sample shall be analysed for the following parameters:

pH	Total Solids
Total Mercury	Total Cadmium
Total Chromium	Total Cobalt
Total Copper	Total Manganese
Total Nickel	Total Lead
Total Iron	Total Zinc
BOD ₅	Faecal Coliforms
Polychlorinated Biphenyls	

4. More frequent sample collection may be required at the request of an Inspector.
5. 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 an Analyst.
6. All analyses shall be performed in a laboratory approved by an Analyst.

C. Flow Measurement and Recording Requirements

1. The Licensee shall measure and record in cubic metres the monthly and annual quantities of Sewage discharged to the Sewage Disposal Facilities.
2. The Licensee shall measure and record in cubic metres the monthly and annual quantities of water pumped from SNP Station Number 1531-1 for municipal purposes.
3. The Licensee shall measure and record in cubic metres the monthly and annual quantities of water pumped from the Solid Waste Disposal Facilities.


D. Reports

1. The Licensee shall submit all of the information generated by Part B and Part C of the Surveillance Network Program annually as specified in Part B, Item 1 of the Licence.

NORTHWEST TERRITORIES WATER BOARD



Chairman



Witness