



i

TABLE OF CONTENTS

DECISION	i
TABLE OF CONTENTS.....	ii
I. BACKGROUND	1
II. PROCEDURAL HISTORY.....	1
III. ISSUES.....	1
A. Term of the License.....	1
B. Pond Drainage Operations.....	2
IV. LICENSE NWB4ARV0406 TYPE “B”	4
PART A: SCOPE AND DEFINITIONS.....	5
PART B: GENERAL CONDITIONS	6
PART C: CONDITIONS APPLYING TO WASTE DISPOSAL	8
PART D: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION.....	9
PART E: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE	10
PART F: CONDITIONS APPLYING TO THE MONITORING PROGRAM.....	10

I. BACKGROUND

The Hamlet of Arviat (Hamlet) is located on the northern shore of a peninsula on the west coast of Hudson Bay. Arviat is located at 61°05' N and 94° 00'W, and is 241 km southwest of Rankin Inlet and 265 air km north of Churchill, Manitoba. The topography of Arviat, which is located on a low and narrow coastal strip, is characterized by low topographic variations, occasional bedrock outcrops and a thick mantle of glacio-fluvial debris. Features include till, fine-grained marine deposits, and extensive beaches. The permafrost is continuous, extending to depths from 30 m to over 100 m. The active layer varies between 0.5 m and 0.3 m. Numerous ponds and lakes are present in the vicinity of the Hamlet, making drainage difficult. The average annual precipitation in Arviat consists of 16 cm of rainfall and 118 cm of snowfall. The mean high in July is 13.1 degrees with a mean low of 4.5 degrees. In January, the mean high is -27.9 degrees and a mean low of -35.0 degrees. The predominant local vegetation consists of mosses and lichens on rocky outcrops, with hardy grasses and sages in swampy and/or more sheltered areas.

II. PROCEDURAL HISTORY

On May 27, 2003, an application for a water license was filed by the Hamlet, for activities associated with the drainage of ponds located within the Hamlet. The Nunavut Water Board publicly posted notice of this application, in accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S.55.1 and Article 13 of the *Nunavut Land Claims Agreement*, on October 7, 2003. An assessment of the Hamlet's request for a municipal water license for water use and waste disposal activities within the Hamlet was then undertaken, so that the Board could make a fully informed decision on the merits of application. This assessment process included the referral of the application to a variety of Federal, Territorial and local organizations for their review and comment. As no public concern relevant to the mandate of Board as described by the *NLCA* and the *NWNSRTA* was expressed, the NWB waived the requirement to hold a public hearing for the application.

Based upon the results of the detailed assessment, which was completed, including consideration of any potential accidents, malfunctions, or cumulative environmental effects that the overall project might have in the area, the Board delegated to the Chief Administrative Officer authority to approve the application pursuant to S. 13.7.5 of the *Agreement*.

III. ISSUES

Term of the License

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* S. 45, the NWB may issue a license for a term not exceeding twenty-five years. In determining an appropriate term of a water license, the Board considers a number of factors, including the results of the annual Department of Indian Affairs and Northern Development (DIAND) site inspection and the

compliance record of the Applicant with licenses previously issued by the Board. In this case, the activity proposed has not previously been undertaken, and thus no prior inspection compliance records exist.

The NWB has imposed the requirement to produce a Final Report upon completion of the proposed appurtenant undertaking. This Report is for the purpose of ensuring that the NWB has an accurate annual update of municipal activities during a calendar year. This information is maintained on the public registry and is available to any interested parties upon request.

The NWB believes that a license term of two (2) years is appropriate, and will allow sufficient time to permit the Licensee to complete the proposed appurtenant undertaking.

Pond Drainage Operations

The Hamlet proposes to drain water from ponds located within the Hamlet boundaries, to develop lands upon which houses may be constructed, as there is a significant shortage of land within Municipal boundaries. An Environmental Site Assessment Pond Drainage Options Plan (ESADOP) was prepared by Jacques Whitford Environment Ltd. (Yellowknife), which included several options by which drainage operations could be undertaken. Additionally, topographic information in support of the application was also provided to the Board.

The Hamlet has indicated in their application that they intend to drain a specific area within the municipal boundaries, which is identified as Pond A in the ESADOP (Drawing #2). This application includes information on a fisheries habitat assessment that was completed in the summer of 2003, which confirmed that the water of Pond A was not fish bearing. This conclusion was based upon the lack of fish captured in minnow traps, the shallow depth of Pond A, the evidence that Pond A freezes to bottom and the lack of any connection to fish bearing waters.

Specific comments relevant to pond drainage operations in the Hamlet were provided by the Department of Fisheries and Oceans (DFO), and Environment Canada (EC). In review of the ESADOP, EC recommended that Option B, as proposed by the Licensee in their application of May 27, 2003, should be implemented. Option B involves pumping water across or under a road (through a culvert), to an existing small pond where sediment could settle. Water would then flow down gradient through several channels before dissipating over a wet, marshy area. When coupled with the installation of silt fences, or other such preventative measures, at the outlet of Pond D, EC indicated that this option should allow for the settlement of the most sediment, would require little maintenance, and should not require the creation of settling ponds. DFO and EC further recommended that the Hamlet take all practicable steps to ensure that sediment control measures be implemented to prevent deposition of silt into nearby water bodies during drainage operations.

Additionally, comments regarding the proposed undertaking were also received from the Nunavut Housing Corporation (NHC) and the Department of Community Government and Services (CGS). The NHC indicated concern that the area which the Hamlet is proposing to drain may not be suitable for building foundations, due to silt build-up, which could potentially result in continuous shifting in building structures. The NHC also noted that the pond to be in-filled is a major drainage point to the Bay for the north-eastern end of the Hamlet, and indicated that the proposed undertaking will cause a negative impact to the lot conditions and general health of the public housing tenants and private homeowners who are part of the affected surface drainage system. In response to these concerns, CGS indicated that the concerns expressed by the NHC could be mitigated by the implementation of a proper in-filling, site compaction and site surface drainage plan development and implementation. Additionally, CGS further indicated that the concerns expressed by the NHC could at least partially be attributed to construction practices, and were not solely attributable to land-stability related issues.

While the Nunavut Water Board is cognisant of the concerns and opinions expressed by both the NHC and by CGS, the Board did not find any compelling evidence from any intervener that the proposed measures will have any direct or indirect impacts on water if carried out as planned. The Board appreciates the concerns of the NHC with respect to potential impacts of the undertaking on adjacent buildings and the potential implications of construction occurring on the area to be drained, but these concerns, not relating to water or waste, are clearly outside of the jurisdictional scope of the Board. The Board's jurisdiction is limited to potential direct or indirect impacts of an activity on water. In this case, the Board has determined that the Hamlet has given reasonable assurances that the pond drainage activities are designed, and will be conducted in such a way, that contamination of water is practically impossible. Therefore, the Board has confidence that the proposed pond drainage activities will be successful and that impacts on water will be unlikely.

Based upon the description of the drainage operations proposed by the Hamlet, having considered the comments of all Parties and in accordance with its mandate and responsibilities under the *NLCA* and the *NWNSRTA*, the Board approves the application of the Hamlet subject to the conditions herein and the details provided in water license NWB4ARV0406 Type "B".

LICENSE NWB4ARV0406 Type “B”

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 ARVIAT

(Licensee)

of

ARVIAT, NUNAVUT, X0A 0J0

(Mailing Address)

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

NWB4ARV0406 Type “B”

License Number

NUNAVUT 06

Water Management Area

ARVIAT, NUNAVUT

Location

WASTE DISPOSAL

Purpose

MISCELLANEOUS UNDERTAKINGS

Description

N/A

Quantity of Water Not to be Exceeded

JUNE 22, 2004

Date of License

JUNE 30, 2006

Expiry Date of License

Dated this 22nd day of June 2004 at Gjoa Haven, NU.

Original signed by:

Philippe di Pizzo
Chief Administrative Officer

PART A: SCOPE AND DEFINITIONS

1. Scope

- a. This License allows for the use of water and the disposal of waste during pond drainage operations to be undertaken within the Hamlet of Arviat, Nunavut (63°21' N; 90° 42'W);
- b. This License 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 License shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and;
- c. Compliance with the terms and conditions of this License does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

In this License: **NWB4ARV0406 Type “B”**

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

“Amendment” means a change to original terms and conditions of this license requiring correction, addition or deletion of specific terms and conditions of the license; modifications inconsistent with the terms of the set terms and conditions of the License;

“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 license issued by the Board;

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

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

“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;

“Final Discharge Point” means an identifiable discharge point of a Waste Disposal Facility beyond which the Licensee no longer exercises care and control over the quality of the Effluent;

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

“Licensee” means the holder of this License;

“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 License and do not require amendment;

“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;

“Pond Drainage Facilities” means the area and associated structures designed to drain water from specified ponds within the Hamlet of Arviat, as described in the application for water license filed by the Applicant on May 27, 2003;

“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;

PART B: GENERAL CONDITIONS

1. The Licensee shall file a Final Report with the Board not later than March 31st of the year following the calendar year reported which shall contain the following information where applicable:

- i. tabular summaries of all data generated under the “Monitoring Program”;
 - ii. the weekly and annual quantities in cubic metres of fresh water displaced during pond drainage operations;
 - iii. a list of unauthorized discharges and summary of follow-up action taken;
 - iv. 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;
 - v. A public consultation/participation report describing any consultation undertaken with local organizations and the residents of the nearby properties potentially affected by the undertaking;
 - vi. 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 comply with the “Monitoring Program” described in this License, and any amendments to the “Monitoring Program” as may be made from time to time, pursuant to the conditions of this License.
3. The “Monitoring Program” and compliance dates specified in the License may be modified at the discretion of the Board.
4. Meters, devices or other such methods used for measuring the volumes of water used and waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
5. The Licensee shall post the necessary signs, where possible, to identify the stations of the “Monitoring Program.” All signage postings shall be in the Official Languages of Nunavut, and shall be located and maintained to the satisfaction of an Inspector.
6. The Licensee shall immediately report to the 24-Hour Spill Report Line (867-920-8130) any spills of Waste as a result of this undertaking.
7. The Licensee shall ensure a copy of this License is maintained at the municipal office at all times.
8. Any communication with respect to this License shall be made in writing to the attention of:

(i) Chief Administrative Officer:

Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Telephone: (867) 360-6338
Fax: (867) 360-6369

(ii) Inspector Contact:

Water Resources Officer
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4298
Fax: (867) 979-6445

(iii) Analyst Contact:

Taiga Laboratories
Department of Indian and Northern Affairs
4601 - 52 Avenue, P.O. Box 1500
Yellowknife, NT X1A 2R3
Telephone: (867) 669-2781
Fax: (867) 669-2718

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.

PART C: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall not deposit any waste in any body of water, or on the banks thereof, which may impair the quality, quantity, or flow of water.
2. The Licensee shall advise an Inspector at least ten (10) days prior to initiating pond drainage operations.
3. 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.

4. All sites affected by pond drainage operations activities shall be stabilized, landscaped as necessary, and suitable erosion control measures implemented to minimize sediment deposition into watercourses located on or adjacent to the site, to the satisfaction of an Inspector.
5. The Licensee shall submit to the Board for review, at least thirty (30) days prior to the commencement of pond drainage operations, a report identifying each Final Discharge Point. The report shall at least include:
 - a. Plans, specifications and a general description of each Final Discharge Point together with its specific geo-referenced location;
 - b. A description of how each Final Discharge Point is designed and maintained.
6. If, during the term of this License, additional Final Discharge Points are identified, the Licensee shall submit the information as required by Part C, Item 5 for each new Final Discharge Point at least 30 days prior to depositing Effluent from the new Final Discharge Point and/or proposed changes are made to a Final Discharge Point.

PART D: CONDITIONS APPLYING TO MODIFICATION AND CONSTRUCTION

1. The Licensee shall submit to the Board for approval design drawings stamped by a qualified engineer registered in Nunavut prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain water or wastes.
2. The Licensee may, without written approval from the Board, carry out modifications to the Pond Drainage Facilities provided that such modifications are consistent with the terms of this License and the following requirements are met:
 - i. the Licensee has notified the Board in writing of such proposed modifications at least sixty (60) days prior to beginning the modifications;
 - ii. said modifications do not place the Licensee in contravention of the License or the *Act*;
 - iii. 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
 - iv. the Board has not rejected the proposed modifications.

3. Modifications for which all of the conditions referred to in Part E, Item 1, have not been met may be carried out only with written approval from the Board.
4. The Licensee shall provide as built plans/drawings of the modifications referred to in this License within ninety (90) days of completion of the modifications.

PART E: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

1. The Licensee shall, if an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - i. take whatever steps are immediately practicable to protect human life, health and the environment;
 - ii. without delay seek guidance from the Department of Community Government and Services and the Department of the Environment (Government of Nunavut) with regards to mitigation and remedial actions required to address the discharge;
 - ii. report the incident immediately *via* the 24-Hour Spill Reporting Line at (867) 920-8130 and to an Inspector; and
 - iii. submit to an Inspector a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART F: CONDITIONS APPLYING TO THE MONITORING PROGRAM

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

<u>Monitoring Station</u>	<u>Description</u>
ARV-5	Effluent discharge from the Final Discharge Point of the Pond Drainage Facilities

2. The Licensee shall sample weekly at Monitoring Station ARV-5 during active pumping operations. Samples shall be analyzed for the following parameters:

BOD	pH
Conductivity	Total Suspended Solids
Oil and Grease (visual)	

3. The Licensee shall measure and record in cubic metres the weekly and annual quantities of water pumped from Monitoring Station ARV-5 for all purposes.
4. Additional sampling and analysis may be requested by 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 the Board.
6. All analyses shall be performed in a Canadian Association of Environmental Analytical Laboratories (CAEAL) Certified Laboratory, or as otherwise approved by an Analyst.
7. The Licensee shall include all of the data and information required by the “Monitoring Program” in the Licensee's Annual Report, as required *per* Part B, Item 1.
8. Modifications to the Monitoring Program may be made only upon written approval of the Chief Administrative Officer.