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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: 8WLC-BGI1920

March 25, 2019

Martin Sharp
1-26 Earth Science Building
University of Alberta
Edmonton, AB
T6G 2E3

Email: msharp@ualberta.ca

Subject: 8WLC-BGI1920 – Dynamics and Change of the Devon Ice Cap, Nunavut; Approval for the Use of Waters and Deposit of Waste Without a Licence

Dear Dr. Martin Sharp:

Please find attached Approval number 8WLC-BGI1920 issued to The University of Alberta by the Nunavut Water Board (NWB or Board) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*. The Approval will be authorized for a period of one (1) year following the Board approval of the Application; and includes conditions related to the use of Waters and Deposit of Waste, which are an integral part of this Approval required for this type of authorization under the *Nunavut Waters Regulations (NWR)*.

This approval and the conditions contained therein permit the carrying out of activities involving the use of Waters and Deposit of Waste with respect to the Application for approval. Any variation from these activities may result in a violation of this Approval and contravention of the *Nunavut Agreement*, the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)* or the *NWR*. The NWB would like to remind the Applicant of the obligations with respect to the reclamation and reporting requirements of the Approval, which will arise as this Approval approaches its expiry.

If the activities authorized under the Approval are expected to continue longer than the term authorized, it is recommended that the Authorized Entity, upon receipt of confirmation¹ from the Nunavut Planning Commission (NPC) and/or the Nunavut Impact Review Board (NIRB) that relevant requirements have been satisfied, apply for a new Approval at least thirty (30) days prior to the expiry of the current authorization. Note that if the existing Approval expires before the NWB issues a new Approval, the use of Waters and/or deposit of Waste must cease as required by the *Nunavut Agreement* and the *NWNSRTA*.

¹NPC and NIRB Requirements under the Nunavut Project Planning and Assessment Act (NuPPAA)

If the Authorized Entity contemplates changes to its undertaking involving a change in scope or increased activity, a water licence may be required. It is the Authorized Entity's responsibility to apply to the NWB for a water licence in accordance with the timelines set out for licences.

This Approval has been posted to the NWB's Public Registry and FTP site and is accessible from the following link:

<ftp://ftp.nwb-oen.ca/registry/8%20MISCELLANEOUS/8WL/8WLC%20-%20Camp/8WLC-BGI1920%20Sharp/>

Sincerely,

Lootie Toomasie
Nunavut Water Board
Chair

LT/dd/ip

Enclosure: Approval Number: 8WLC-BGI1920

cc. Qikiqtani Region



NUNAVUT WATER BOARD APPROVAL WITHOUT A LICENCE

APPROVAL DECISION

APPROVAL NUMBER: 8WLC-BG11920

This is the decision of the Nunavut Water Board (NWB) with respect to an application for Approval for the use of Waters and deposit of Waste without a licence, dated March 19, 2019, made by:

UNIVERSITY OF ALBERTA

to authorize the use of Waters and deposit of Waste during the Dynamics and Change of the Devon Ice Cap, Nunavut project, located within the Qikiqtani Region, Nunavut and within the Eastern Devon Island Watershed No. 57; and Western Devon Island Watershed No 56, generally at the following geographical coordinates:

Project Extents (Decimal Degree):

Latitude: N75.744892	Longitude: W83.237447
Latitude: N75.457849	Longitude: W79.662064
Latitude: N74.669475	Longitude: W80.369964
Latitude: N74.859053	Longitude: W85.726908

Camp Locations (Decimal Degree):

Latitude: N75.573	Longitude: W83.295 (Base Camp)
Latitude: N75.723	Longitude: W83.197 (Sverdrup Glacier)

DECISION

The NWB received confirmation from the NPC on January 26, 2017 (NPC File # 148435), that it has completed its review of the project proposal noted above for the years 2017 to 2020 inclusive². The proposal and associated activities were previously reviewed by NPC, and conform to the North Baffin Regional Land Use Plan (conformity determinations issued on Feb 24, 2016 which still applies; NPC File # 148217). This project proposal is exempt from screening by the NIRB under section 12.4.3 of the *Nunavut Agreement* because the activities were previously found to be exempt from screening by the Nunavut Impact Review Board (NIRB FILE NO.: 10YNO07). The Board is satisfied that the requirements of Articles 11 and 12 of the *Nunavut Agreement* and sections 3, 4 and 5 of the *Nunavut Waters Regulations* (NWR or *Regulations*) have been adequately addressed. In addition, through the provision of a signed Application for an Approval Without a Licence, the Applicant has agreed to adhere to sections 4(3), 5(4), 5(5) and 6 of the *Regulations* and to comply with the associated requirements, the NWB determined that:

² NPC Correspondence, March 8, 2018.



NUNAVUT WATER BOARD APPROVAL WITHOUT A LICENCE

Approval Number 8WLC-BGI1920 be issued, subject to the conditions of Schedule 1 contained therein (Motion # 2019-WL-031).

SIGNED this 25th day of March, 2019 at Gjoa Haven, NU.

Lootie Toomasie
Nunavut Water Board, Chair

LT/dd/ip



NUNAVUT WATER BOARD APPROVAL WITHOUT A LICENCE

APPROVAL NO. 8WLC-BGI1920

Pursuant to the *Nunavut Waters Regulations*, *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

**UNIVERSITY OF ALBERTA
DEPARTMENT OF EARTH AND ATMOSPHERIC SCIENCES**

1 – 26 EARTH SCIENCE BUILDING, EDMONTON, AB, T6G 2E3

of

Hereinafter called the Authorized Entity, the right to use Waters and/or deposit of Waste for a period of one (1) year following the Board approval of the Application, subject to the conditions contained in Schedule 1 attached to this Approval:

Project Name: **DYNAMICS AND CHANGE OF THE DEVON ICE CAP,
NUNAVUT**

Location: **DEVON ISLAND, QIKIQTANI REGION, NUNAVUT**

Water Management Area: **EASTERN DEVON ISLAND WATERSHED (NO. 57) AND
WESTERN DEVON ISLAND WATERSHED (NO. 56)**

Classification of
Undertaking: **8. OTHER UNDERTAKING**

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

Approval Criteria: **USE OF WATER NOT TO EXCEED ONE (1) CUBIC METRE
PER DAY, AND DEPOSIT OF SEWAGE WASTE**

Effect Date: **MARCH 25, 2019**

Expiry of Approval: **MARCH 24, 2020**

Dated this 25th day of March, 2019, at Gjoa Haven, NU

Lootie Toomasie
Nunavut Water Board, Chair



SCHEDULE 1

CONDITIONS FOR USE OF WATER OR DEPOSIT OF WASTE WITHOUT A LICENCE

General

1. In the case of an Authorized Entity who has a mineral right and who intends to use Waters or deposit Waste in relation to that right, the Authorized Entity shall respect the priority conferred on Inuit by section 62 of the *Act* as if that applicant had a licence for the use or deposit.

Use of Waters

2. The Authorized Entity shall take measures prior to the use of Waters to minimize any alteration to the bed or banks of a watercourse whose waters are to be used, and the measures shall be maintained during the operation of the undertaking.

Deposit of Waste

3. The Authorized Entity shall not deposit Waste (Sewage) to surface water or within thirty-one (31) metres of the ordinary High Water Mark of any body of water.
4. The waste must not contain more than 15 milligrams per litre of petroleum or petroleum product and must not have a visible hydrocarbon sheen.
5. All other wastes shall be backhauled and disposed of at an approved waste disposal facility.

Spill Contingency

6. Measures to deal with unforeseen petroleum and hazardous materials releases that may occur during the activities conducted under the authorization to use waters and/or deposit waste without a licence, including:
 - a. 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;
 - b. prevent any chemicals, petroleum products or wastes associated with the project from entering water;
 - c. report spills immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295;
 - d. for each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include reference to the assigned spill number, the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site; and
 - e. in addition to Item 5c, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body

Abandonment and Restoration

7. Prior to the closure or abandonment of the undertaking or end of the period authorized for the use of Waters or deposit of waste without a licence, whichever occurs first, the site shall be restored — to the extent practicable — to the state in which it was before the use of Waters or the deposit of Waste.^a



SCHEDULE 1 (Cont.)

Record Keeping

8. The Authorized Entity shall:
- a. maintain accurate and detailed books and records of:
 - i. the quantity of water, in cubic metres, used each day,
 - ii. the quantity, in cubic metres, of waste deposited each day,
 - iii. the type of waste deposited each day,
 - iv. where the waste is deposited including GPS coordinates in Latitude and Longitude,
 - v. the concentration of the substance, or substances, in the deposited solid or liquid that has the effect of making the deposit waste,
 - vi. the methodology used to calculate or determine the information referred to in items (i) to (v), and
 - vii. the measures that were taken to avoid or mitigate any adverse impacts of the deposit of waste.
 - b. keep the books and records on the site of the undertaking during the period of its operation and make them available during that period to an inspector on request;
 - c. submit to the Board a report containing a summary description and supporting photographs of the restoration of the site of the undertaking within thirty (30) days after the earliest of (i) the day on which the undertaking is closed or abandoned, and (ii) the last day of the period authorized for the unlicensed use or deposit;^b and
 - d. keep the books and records for two years after submitting the report describing the restoration of the site and undertakings.

Notes:

- a) A site need not be restored prior to the end of the period authorized for the use of Water or the deposit of Waste without a licence, as required by Item 5, if the Board issues a licence for the use of Water or deposit of Waste for the same undertaking on same site prior to the end of that period.
- b) The Authorized Entity need not submit the report referred to in Item 6 (c) if the Authorized Entity obtains a new approval authorizing a use of Water or deposit of Waste without a licence, or a licence authorizing a use of Water or deposit of Waste for the same undertaking on the same site within thirty (30) days after the last day of the period previously authorized.