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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No: **3BM-KIM1929/
Amendment No. 1**

December 8, 2023

John Stephen Mabberi - Mudonyi
Senior Administrative Officer (SAO)
Hamlet of Kimmirut
P.O. Box 120
Kimmirut, Nunavut X0A 0N0

Gord Z. Marinic
Municipal Engineer
Government of Nunavut – CGS
PO Box 1000, Stn 700
Iqaluit, Nunavut X0A 0H0

Email: saokim@qiniq.com

Email: gmarinic@gov.nu.ca

RE: NWB Type “B” Water Licence No: 3BM-KIM1929 – Amendment No. 1

Dear Mr. Mabberi-Mudonyi and Mr. Marinic:

Please find attached **Amendment No. 1** to Water Licence No: **3BM-KIM1929** (Licence) issued to Hamlet of Kimmirut by the Nunavut Water Board (NWB or Board) (**Motion 2023-B1-017**) 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 terms and conditions of the original Licence related to water use and waste disposal remain an integral part of this approval.

The NWB notes that the NPC has indicated¹ that the project proposal is outside the area of an applicable land use plan. The NPC has determined that this project proposal is a significant modification and it requires screening by the NIRB. The NIRB, in their Screening Decision², recommended that a review of this project is not required pursuant to Article 12, Section 12.4.4(a) of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 92(1)(a) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (NuPPAA).

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.³

¹ Nunavut Planning Commission (NPC) Conformity Determination, File #149905, dated November 10, 2022

² Nunavut Impact Review Board (NIRB) Screening Decision, File #22WA059, dated April 21, 2023

³ Crown-Indigenous Relations and Northern Affairs (CIRNA) June 26, 2023, and Environment and Climate Change Canada (ECCC), June 11, 2023.

Sincerely,

Lootie Toomasie
Nunavut Water Board
Chair

LT/as/rh

Enclosure: **Licence No: 3BM-KIM1929 – Amendment No. 1**

Comments – CIRNA and ECCC

Cc: Qikiqtani Distribution List

Licence Amendment No. 1

Licensee:	Hamlet of Kimmirut
Licence No:	3BM-KIM1929 Type “B”
Licence Issued:	May 27, 2019
Licence Expiry:	May 26, 2029
Amended Licence No:	3BM-KIM1929 Type “B”
Amendment No. 1 Effective Date:	December 08, 2023

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)* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act)*, with respect to an application for amendment, dated June 8, 2023, made by the Government of Nunavut, Community and Government Services (GN-CGS) on behalf of Hamlet of Kimmirut (the Hamlet or Licensee), the Board hereby grants the following Licence amendment.

The Licence issued on May 27, 2019, with an expiry date of May 26, 2029, shall be amended to include the following terms and conditions, with respect to the use of Water and the deposit of Waste during Municipal undertaking.

The Amendments include the construction and operation of a new Wastewater Treatment Facility (WWTF) and modifications to the Effluent parameters. The new WWTF will consist of an impermeable lagoon and a Wetland Treatment Area (WTA). The working volume of the new lagoon will be 26,900 m³ with a life of 20 years. The WTA will involve the construction of 15 berms from the wastewater treatment cell (lagoon) to the Final Discharge Point.

Amendments have been made to the locations and descriptions of Monitoring Stations KIM-3 and KIM-5 (new compliance point). Effluent quality limits applied to KIM-5 have been amended after considering the recommendations received during the application process.

PROCEDURAL HISTORY

On June 8, 2023, the Applicant, Government of Nunavut – Department of Community and Government Services (GN-CGS) submitted an Amendment Application (Application) on behalf of the Hamlet of Kimmirut.

The amendments requested in the Application were as follows:

- Construction of a new wastewater treatment facility (WWTF) consisting of a lagoon and a wetland-treatment-area (WTA)

- Amendment of the associated effluent quality limits
- Removal of the fecal coliform limit from the WWTF compliance point

The following documents were submitted with the Amendment Application on June 8, 2023:

- NPC Conformity Letter
- NIRB Screening Decision Report
- Application for Water Licence Amendment
- Summaries in English and Inuktitut
- Compliance Plan for Water Licence No. 3BM-KIM1929
- New WWTF Design Development Report (January 2023)
- Recommendations for Municipal Wastewater Standards Report (November 2018)
- Fish Habitat Assessment Memo
- Kimmirut NWB Effluent Quality Justification Discussion
- Letter of Authorization
- Documents Submission List

Upon receipt, the NWB conducted a preliminary internal technical review of the Application and distributed it for a thirty (30) day comment period on **June 9, 2023**. On or before the deadline of July 11, 2023, the NWB received submissions from Crown Indigenous Relations and Northern Affairs (CIRNA) and Environment and Climate Change Canada (ECCC).

The NWB reached out to the Department of Fisheries and Oceans (DFO) to request their feedback. DFO replied on June 22, 2023, stating... *“Based on the habitat observations and the sampling results, DFO was satisfied that the pond is not fish-bearing and would not sustain a fish population; thus, removing DFO from the project review process. Should plans change or if the proponent has omitted some information in the proposal, further review by the Program may be required.”*

The Applicant requested extensions on July 20, 2023, September 1, 2023, September 20, 2023, September 29, 2023 and October 30, 2023 to respond to the interveners’ information requests. The NWB received responses from the Applicant on **November 21, 2023** and sent them to the interveners for confirmation.

On **November 28, 2023**, CIRNA and ECCC confirmed that they were satisfied by the response received from the Applicant.

The NWB has placed in its Public Registry copies of the Application and all comments received from interveners. This information can be accessed on the NWB’s FTP site using the following link:

<ftp://ftp.nwb-oen.ca/registry/3%20MUNICIPAL/3B/3BM%20-%20Municipality/3BM-KIM1929/1%20APPLICATION/2023%20Amendment>

SUMMARY OF TECHNICAL REVIEW

Crown Indigenous Relations and Northern Affairs (CIRNA) provided the following recommendations during the review process:

- CIRNA requested the Licensee to confirm whether the water meter at Monitoring Station KIM-1, is functioning;
 - Applicant agreed to install a water flow meter at Monitoring Station KIM-1.
- CIRNA requested the Licensee revise the Operation & Maintenance Plan (for the new WWTF) to include details on annual maintenance along with a schedule for decanting;
 - Applicant agreed to prepare an Operation & Maintenance Plan (for the new WWTF) once construction is complete and as built drawings are received. The revised plan will include details as recommended by CIRNA.
- CIRNA stated that they agree with the Licensee's suggested changes to the location and description of monitoring stations KIM-3 and KIM-5;
 - The Applicant responded that monitoring will be retained at KIM-3 for information and analysis purposes.

The monitoring table in Part H, item 1 is updated in this Amendment.

Environment and Climate Change Canada (ECCC) provided the following recommendations during the review process:

- ECCC requested clarifications regarding the Design Development Report, whether any other secondary treatment options were considered and if concerns raised in the report regarding feasibility of wetland treatment have been resolved;
 - Applicant submitted a technical memo answering ECCC's queries. ECCC was satisfied with the response.
- ECCC recommended that Monitoring Station KIM-3 be retained for information and analysis purposes;
 - Applicant agreed to ECCC's recommendation.
- In response to non-compliance regarding solid waste management, ECCC recommended using their guidance document to inform the waste management study described in the Compliance Plan and support responsible solid waste management;
 - Applicant stated that a business case has been developed addressing and providing alternatives for solid waste management and practices.

- ECCC recommended that the Licensee consult the Species at Risk Registry and the Government of Nunavut to identify appropriate mitigation measures to avoid and lessen project effects to species under their management responsibility.
 - The Licensee submitted a technical memo addressing ECCC's concerns. ECCC was satisfied with the response.

LICENCE AMENDMENT NO. 1

The Licence shall be amended to indicate the following:

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

Definitions

Insert:

Wastewater Treatment Facility (WWTF) comprises the new wastewater treatment facility to be designed and constructed in the Hamlet of Kimmirut, as described in the New Wastewater Treatment Facility Design Development Report, dated January 2023, which was submitted with the Amendment Application on June 8, 2023.

Wetland Treatment Area (WTA) comprises of the wetland treatment area following the WWTF, to be designed and constructed in the Hamlet of Kimmirut, as described in the New Wastewater Treatment Facility Design Development Report, dated January 2023, which was submitted with the Amendment Application on June 8, 2023

PART B: GENERAL CONDITIONS

Amend Item 12 to read:

- (b) **Inspector Contact:**
Manager of Field Operations, CIRNA
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4284

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

Amend Item 1 to read:

Prior to commissioning the Wastewater Treatment Facility (WWTF), the Licensee shall direct all Sewage to the Sewage Disposal Site. The Licensee shall direct all Sewage to the Wastewater Treatment Facility once it has been commissioned, or as otherwise approved by the Board.

Amend Item 2 to read:

All Effluent discharged from the Final Discharge Point at Wetland Treatment Area at Monitoring Program Station KIM-5 shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of any Grab
Fecal Coliforms	1×10^6 CFU/100mL
BOD ₅	100 mg/L
Total Suspended Solids	120 mg/L
Oil and grease	No visible sheen
pH	Between 6 and 9
Unionized Ammonia	1.25 mg/L

Amend Item 4 to read:

The Licensee shall provide at least ten (10) days notification to an Inspector, prior to initiating any decant of the Wastewater Treatment Facility (WWTF).

Amend Item 5 to read:

The Wastewater Treatment Facility (WWTF) shall be maintained and operated, in such a manner as to prevent structural failure.

Add Item 12 to read:

The Licensee will direct all sewage to the new Wastewater Treatment Facility (WWTF) once it is commissioned or as otherwise approved by the Board.

PART F: CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

Amend Item 9 to read:

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 Environmental Emergency 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 via the NWT/NU 24-Hour Spill Reporting Line (867) 920-8130 and to the Inspector at (867) 975-4284; 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.

Insert Item 10 to read:

The Licensee shall submit to the Board for approval, ninety (90) days prior to the commissioning of the Wastewater Treatment Facility (WWTF), a Plan that reflects operation and maintenance procedures for the new Wastewater Treatment Facility.

PART H: CONDITIONS APPLYING TO THE MONITORING PROGRAM

Amend Item 1 to read:

Monitoring Program Station	Description	Parameters / frequency	Status
KIM-1	Raw water supply intake at Fundo Lake	<u>Volume</u> - Monthly	Active
KIM-2	Runoff from existing Solid Waste Disposal Facility	<u>Water Quality</u> - Three (3) times annually	Active
KIM-3	Effluent discharge from wastewater treatment cell (lagoon) prior to Wetland Treatment Area	<u>Volume</u> - Monthly <u>Water Quality</u> - Monthly during discharge	Active
KIM-4	Effluent discharge from Enhanced Solid Waste Disposal Facility	<u>Volume</u> - Monthly and/or volume discharged <u>Water Quality</u> - Monthly and/or prior to discharge	Active once facility in use

KIM-5	Final Discharge Point from Wetland Treatment Area	<u>Volume</u> - Monthly and/or volume discharged <u>Water Quality</u> - Monthly and/or prior to discharge	Active once facility in use
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All remaining terms and conditions of the original Type “B” Water Licence No: 3BM-KIM1929, dated May 27, 2019, still apply.

This Licence Amendment No. 1 is issued and recorded at Gjoa Haven, NU on December 08, 2023.

Approved by,

Lootie Toomasie
Nunavut Water Board
Chair

LT/as/rh