



File No: **8BM-MAC2545**

May 13, 2025

Alison Street, P.Eng.
DEW Line Clean-Up Senior Project Manager
Department of National Defence
60 Moodie Drive
Ottawa, ON K1A 0K2

Email: alison.street@forces.gc.ca

RE: NWB Replacement Water Licence No: 8BM-MAC2545

Dear Alison Street:

Please find attached Licence No: **8BM-MAC2545** issued to Department of National Defence (DND or Licensee or Applicant) 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 terms and conditions of the attached Licence related to the use of Water and the deposit of Waste are an integral part of this approval.

If the Licensee contemplates continuing this Undertaking after the Licence expires, it is the responsibility of the Licensee to apply to the NWB for a renewal water licence. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then the use of Water and the deposit of Waste must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA or Act)*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the Licence. The NWB recommends that an application for the renewal of this Licence be filed at least **three (3) months** prior to the Licence expiry date.

It should be noted that in accordance with s. 75(1)(a) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with s. 76 of *NuPPAA*.

If the Licensee contemplates or requires an amendment to this Licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit an application for

amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment, however, a minimum of **sixty (60) days** is required from the time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and acknowledged by the Manager of Licensing.

Sincerely,

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ns/rh

Enclosure: Water Licence No: **8BM-MAC2545**

Comments – CIRNA, DFO¹

Cc: Distribution List – Qikiqtani

¹ Crown-Indigenous Relations and Northern Affairs Canada (CIRNA), April 14, 2025; Fisheries and Oceans Canada (DFO), April 23, 2025.

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DECISION

LICENCE NUMBER: 8BM-MAC2545

This is the decision of the Nunavut Water Board (NWB or Board) with respect to an application submitted on March 13, 2025, for a renewal/amendment of a type B Licence made by:

DEPARTMENT OF NATIONAL DEFENCE

to allow for the use of Water and the deposit of Waste during monitoring operations and activities related to the CAM-5 (Mackar Inlet) Landfill Monitoring Program project, located within the Qikiqtani Region, Nunavut, generally located at the geographical coordinates as follows:

Project Extents: Latitude: 68° 20' 19" N Longitude: 85° 42' 38" W

Camp Location: Latitude: 68° 20' 31" N Longitude: 85° 44' 32" W

DECISION

The Application is for a proposal that was previously screened by the Nunavut Planning Commission (NPC) and the decision issued on March 11, 2022, still applies. In addition, it is exempt from screening by the Nunavut Impact Review Board (NIRB) as determined by the Nunavut Planning Commission (NPC)¹ because it was previously screened by NIRB², it does not change the general scope of the original or previously amended project activities, and the exceptions notes in Section 12.4.3 (a) and (b) of the *Nunavut Agreement* do not apply. After being satisfied that the above requirements are met, the NWB decided that the Application could proceed through the regulatory process. In accordance with s. 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA or Act)* and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested parties, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

Water Licence No: 1BR-MAC1323 be replaced by 8BM-MAC2545 be issued subject to the terms and conditions contained therein. (Motion #: 2025-B1-005)

Signed this 13th day of May, 2025 at Gjoa Haven, NU.

Lootie Toomasie
Nunavut Water Board, Chair
LT/ns/rh

¹ Nunavut Planning Commission, May 08, 2024.

² NIRB Screening Decision, April 20, 2011.

I. BACKGROUND

The former CAM-5 Mackar Inlet Distant Early Warning (DEW) Line site is located on the western shore of the Melville Peninsula in the Committee Bay area, approximately 190 km southwest of Sanirajak (formerly Hall Beach), within the Qikiqtani Region, Nunavut.

The CAM-5 DEW Line site was constructed in the 1950's to provide radar surveillance of the northern approaches to North America. However, the site and facility were closed in the 1990's later superseded by the more modernized North Warning System (NWS). Following closure of the site, two initial site assessments were carried out independently: the first was conducted in 1990 by UMA Engineering Ltd. (UMA) in association with Hardy BBT Ltd. and Jacques Whitford Group (Jacques), while the second was conducted by the Environmental Sciences Group (ESG) in 1989 and 1990. In 2000 and 2002, a detailed site investigation was completed to delineate contamination identified in the assessments, and to collect additional geophysical, geotechnical, demolition, and debris information. Input on traditional land use was provided by Nunavut Tunngavik Incorporated (NTI) at that time. The requirements for landfill closure were based on the 2002 site investigation data.

The environmental cleanup and demolition of facilities commenced in 2005 and were completed in the summer of 2010. The cleanup included the remediation of four existing landfills as well as the construction of a landfill for the disposal of non-hazardous wastes generated from demolition, the collection of site debris, and the installation of Monitoring Wells and Thermistors. A Tier II soil disposal facility was also constructed at this site. Additional soil and groundwater sampling was completed as part of landfill baseline monitoring in 2010/2011, during site clean-up.

The landfills which are subject to long-term monitoring are listed below:

- Lower Site Landfill – South
- Non-Hazardous Waste Landfill
- USAF and Asbestos Landfill
- Tier II Disposal Facility

II. FILE HISTORY

The NWB has issued the following licences to this Project:

- NWB5MAC0204
- 1BR-MAC0712
- 1BR-MAC1323

The expired 1BR-MAC1323 licence was originally issued to Defence Construction Canada (DCC). The licence along with eleven (11) other licences were assigned to the Department of National Defence (DND) by the Board on May 25, 2020.

Additionally, the expired licence was classified as an Industrial Undertaking (Remediation) or "1BR". According to Schedule 1 of the *Nunavut Waters Regulations*, the classification of the undertaking was changed from "Industrial" to "Other" as the remediation work has been

completed and the current scope of the application is associated with monitoring and camp use. As a result, the NWB has reclassified the licence as Other Undertaking (Monitoring) or "8BM".

III. PROCEDURAL HISTORY

The Board received a renewal and amendment water licence application from the Department of National Defence (DND) on March 13, 2025. The documents submitted by DND for a replacement and amended type B water licence are as follows:

- Application for Water Licence Amendment
- Executive Summary English
- Executive Summary Inuktitut
- Landfill Monitoring Plan
- Preliminary Phase II Summary
- 191212 DND DEW Line Monitoring Modifications
- NIRB Screening Decision Report, File No. 05DN122 (January 18, 2006,)
- NIRB Exemption File No. 05DN122 (November 9, 2009)
- NPC Conformity Determination, File No. 150405 (March 8, 2024)
- NPC Conformity Determination, File No. 149635 (March 11, 2022)
- NTS _047B _CAM _5
- Remote Camp Questionnaire
- 1BR-MAC1323 Spill Contingency Plan

The Applicant requested:

- total water use of one (1) cubic metre per day;
- deposit of Waste associated with camp activities and monitoring;
- term of twenty (20) years.

With respect to pre-licensing requirements, the NWB received the Nunavut Planning Commission's (NPC) Land Use Conformity Determination⁴ for the Undertaking indicating that the project proposal falls outside an area with an applicable regional land use plan and the activities associated with the project were previously reviewed by NPC and the decision issued on March 11, 2022, still applies. Additionally, screening by the Nunavut Impact Review Board (NIRB) is not required.

Following receipt and an internal preliminary review, the NWB distributed the application on March 24, 2025, for a month-long review and comment period, with the deadline for submission set for April 24, 2025. The NWB received submissions from Crown-Indigenous Relations and Northern Affairs (CIRNA) on April 14, 2025, and from the Fisheries and Oceans Canada (DFO) on April 23, 2025, indicating that they had no comments.

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 registry using the following link:

⁴ Nunavut Planning Commission (NPC) Determination, May 08, 2024.

IV. GENERAL CONSIDERATIONS

The following sections provide general overview of the rationale for some of the main terms and conditions included under this Water Licence.

Term of the Licence

In accordance with s. 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (*NWNSRTA* or *Act*), the NWB may issue a licence for a term not exceeding twenty-five (25) years. The NWB has taken into consideration the Landfill Monitoring Program and the request for a twenty (20) year licence term. The monitoring program is currently in Phase II and it commenced in 2022. Phase II monitoring is designed to verify equilibrium conditions established in Phase I. The monitoring frequency in Phase II is carried out according to the following schedule: years 7, 10, 15 and 25. Year 25 marks the end of Phase II monitoring.

The next monitoring events at CAM-5 are planned to take place in 2025 (year 15) and 2035 (year 25). However, in their Application, the Applicant has requested a twenty (20) year term to include some contingencies in the event that an unforeseen requirement arises in the future for additional monitoring after 2035. The Interveners, in their submissions, did not object to the term requested for this licence, and the Board agrees with the requested term as a contingency for potential further monitoring requirements. The Board has therefore granted a twenty-year term requested by the applicant. In doing so, the Board believes and expects that the twenty years will provide the applicant with significant opportunities to consistently abide by the terms and conditions of the Licence.

Annual Reports

Under Part B, Item 1 of the Licence, the Licensee is required to submit Annual Reports for the purpose of ensuring that the NWB has an accurate annual update of activities related to Water use and Waste disposal during each calendar year. This information is maintained on the Public Registry and is available to interested parties upon request. A “Standardized Form for Annual Reporting” is to be used by the Licensee and is available from the NWB Public Registry link at:

Water Use

The quantity of water requested by the Applicant is one (1) cubic metre per day for camp use and monitoring requirements. The water will be obtained from the Water Supply Lake or one of the small unnamed surface water bodies near landfills as outlined in the Application. No concerns were expressed by the Interveners with respect to the requested freshwater amount, or the manner in which it is obtained or used. The Board has authorized the Licensee to use a maximum of one (1) cubic metre of water per day under Part C, Item 1 of the Water Licence.

Deposit of Waste

The NWB understands that the CAM-5 site has been reclaimed and that during on-site monitoring, the Applicant is proposing that camp sewage and greywater be disposed of in sumps. Latrine pits and sumps must be at least thirty-one (31) metres from the nearest ordinary High Water Mark. All other wastes generated through the monitoring activities are to be backhauled for proper disposal at a licensed facility.

Monitoring

As part of the DEW Line Clean-Up (DLCU) project, DND and NTI developed agreements to determine the approach for long-term monitoring of the landfills at the remediated DEW Line Sites under DND's jurisdiction. The environmental cleanup and demolition of the DEW Line facilities commenced in 2008 and were completed by 2010. All structures related to the DEW Line at the site were demolished, except for one storage building, which was moved to the airstrip area. The project involved the full excavation of three landfills: Upper Site Landfill, Airstrip Landfill, and Lower Site Landfill – North; as well as the remediation and closure of two other landfills. Additionally, two new engineered disposal sites were constructed: one for non-hazardous waste and demolition debris, and another, a Tier II Disposal Facility, for disposal of Tier II contaminated soil.

Monitoring of remaining facilities will be ongoing for at least ten years ending in 2035. The monitoring to be carried out under this licence shall be conducted in accordance with the previously approved Plan entitled “Water Use and License Amendment and Renewal CAM-5, Mackar Inlet Landfill Monitoring” prepared by AECOM and dated December 2012. All monitoring results are to be provided to the NWB with an analysis/interpretation of results as part of the Annual Reports.

Additionally, in 2017, a minor modification to the chemical parameters being monitored at the landfill sites was agreed upon by the DND and NTI DEW Line Steering Committee. Consequently, mercury is no longer monitored in soil or groundwater, and PCBs are no longer monitored in groundwater. All other aspects of the landfill monitoring program remain the same. This change was previously communicated to the NWB in a letter dated February 9, 2017⁵. The Board, in its letter dated December 12, 2019, determined that the proposed changes do constitute modifications that are consistent with the existing terms and conditions of the Licence. and, therefore, no longer requires the Licensee to conduct mercury analysis of soil and groundwater samples and PCB analysis of groundwater samples.

Part I of the Licence details the environmental monitoring requirements.

Management Plans and Related Information

The Applicant has submitted a “Spill Contingency Plan – CAM-5” dated March 01, 2024. This plan is being approved with the approval of this Licence. The conditions for spill contingency planning are included in Part G of the Licence.

⁵ Letter from NWB to L. D’Costa and A. Street, RE: Nunavut Water Board Response to Request for Modification of the Post-Construction Monitoring Programs for Water Licences for DND DEW Line Sites; dated December 12, 2019



NUNAVUT WATER BOARD WATER LICENCE

Licence No: 8BM-MAC2545

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

DEPARTMENT OF NATIONAL DEFENCE

(Licensee)

60 MOODIE DRIVE, OTTAWA, ON K1A 0K2

(Mailing Address)

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

Licence Number/Type: **8BM-MAC2545/ TYPE B**

Water Management Area: **GULF OF BOOTHIA (34)**

Location: **CAM-5 (MACKAR INLET) LANDFILL MONITORING
PROGRAM, QIKIQTANI REGION, NUNAVUT**

Classification: **OTHER UNDERTAKING**

Purpose: **DIRECT USE OF WATER AND DEPOSIT OF WASTE**

Quantity of Water use not to Exceed: **ONE (1) CUBIC METRE PER DAY**

Date of Licence Issuance: **MAY 13, 2025**

Expiry of Licence: **MAY 12, 2045**

This Licence, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

**Lootie Toomasie
Nunavut Water Board, Chair**

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the use of Water and the deposit of Waste for an Other undertaking classified as per Schedule 1 of the *Regulations* at the CAM-5 (Mackar Inlet) DEW Line site, located approximately 150 km east of the community of Kugaaruk, within the Qikiqtani Region, Nunavut

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the deposit 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 Licence shall be deemed, upon promulgation of such *Regulations*, to be subject to such requirements; and
- b. 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.

2. Definitions

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

“Addendum” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

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

“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 the Nunavut Agreement and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“Effluent” means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond, landfarm 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*;

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

“**Hazardous Waste**” means Waste classified as “hazardous” by Nunavut Territorial or Federal legislation, or as “dangerous goods” under the Transportation of Dangerous Goods Act;

“**High Water Mark**” means the usual or average level to which a water body 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*;

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

“**Lower Site Landfill – South**” means the waste disposal facility as described in the application for renewal dated December 12, 2012 and in Figure CAM-5.3;

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

“**Monitoring Program**” means the plan entitled “*Water Use and License Amendment and Renewal CAM-5, Mackar Inlet Landfill Monitoring*” dated December 2012;

“**Non-Hazardous Waste Landfill**” comprises the landfill constructed in 2008 and containing approximately 9886 cubic metres of non-hazardous wastes and demolition debris, non-hazardous site debris generated and collected during site cleanup as described in the 2010 Annual Report, and including adjacent monitoring wells as described in the application for renewal dated December 12, 2012 and in Figure CAM-5.4;

“**Nunavut Agreement**” or “**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;

“**NTI Agreement**” means the “*Agreement Between Nunavut Tunngavik Incorporated and Her Majesty the Queen in the Right of Canada, as Represented by the Minister of*

National Defense for the Clean-up and Restoration of Distant Early Warning Sites within the Nunavut Settlement Area-Environmental Provisions” including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Regulations” or “Regulations” means the *Nunavut Waters Regulations* SOR/2013-69 18th April, 2013;

“Secondary Containment” means an impermeable structure, external to and separate from primary containment, which prevents unplanned spills of hazardous materials and provides a minimum capacity of 110% of the original vessel. Where multiple vessels are stored within the containment, it must provide a minimum capacity equal to the sum of the largest vessel and 10% of the aggregate volume of all other vessels located in the containment. This structure shall also provide containment and control of hoses and nozzles;

“Sewage” means all toilet Wastes and greywater;

“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;

“Sump” or “Sumps” means a structure or depression that collects, controls, and filters liquid Waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid Waste;

“Tier I Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier I in Appendix E of the NTI Agreement, including its preamble and schedules, and any amendments to that agreement made pursuant to it (see Table 1);

“Tier II Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier II in Appendix E of the NTI Agreement including its preamble and schedules, and any amendments to that agreement made pursuant to it (see Table 1);

“Tier II Soil Disposal Facility” means the facility constructed in 2009 and containing approximately 3936 cubic metres of Tier II contaminated soil defined as per Table No. 1 as described in the 2010 Annual Report, and including adjacent monitoring wells and thermistors as described in the application for renewal dated December 12, 2012 and in Figure CAM-5.3;

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

“USAF & Asbestos Landfill” means the facility constructed during the closure of the site in 1992 and anticipated to contain inert wastes as described in the application for

renewal dated December 12, 2012 and in Figure CAM-5.4;

“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;

“Waste Disposal Facilities” means the facilities designed to retain wastes including the Lower Site Landfill – South, USAF and Asbestos Landfill, Non-Hazardous Waste Landfill and Tier II Soil Disposal Facility, as described in the Application for renewal Water Licence submitted by the Applicant on March 13, 2025;

“Water” or “Waters” means waters as defined in section 4 of the *Act*.

3. **Enforcement**

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of Water and deposit or discharge of Waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

1. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:
 - a. A summary report of water use and waste disposal activities;
 - b. Quantity of Water (in cubic metres/day) obtained for all purposes from sources on, in or flowing through Crown Lands during the reporting period;
 - c. Quantity of waste backhauled to approved facility for disposal;
 - d. Summaries for all data and information generated under the Monitoring Program;
 - e. A review and analysis of data collected during the Monitoring Program and a brief description of any future studies planned by the Licensee;
 - f. The results of any review conducted and any recommendations regarding any changes to the Monitoring Program and/or remediation requirements;

- g. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - h. A list of unauthorized discharges and summary of follow-up actions taken;
 - i. If applicable, a description of any trenches and sumps excavated, including the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
 - j. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - k. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - l. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - m. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported.
2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this Project at least thirty (30) days prior to any such change.
3. The Licensee shall implement suitable methods required for measuring the volumes of Water associated with the project as required under Part I, Item 3.
4. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
5. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
6. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
7. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
8. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:
 - (a) **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

(b) Inspector Contact:

Inspector Contact:
Manager of Field Operations, CIRNAC
Nunavut District, Nunavut Region
918 Nunavut Drive
Iqaluit, NU X0A 3H0
Telephone: (867) 975-4284

9. The Licensee shall submit an 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 (and/or Inuinnaqtun).
10. The Licensee shall ensure that all documents or correspondence submitted by the Licensee to the NWB are received and acknowledged by the Manager of Licensing.
11. This Licence is assignable as provided for in Section 44 of the *Act*.
12. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all Water from Water Supply Lake or from one of the small unnamed surface water bodies near the project area, as described in the Application. The volume of Water for all purposes shall not exceed one (1) cubic metre per day.
2. The use of Water from streams or any water bodies not identified in Part C, Item 1, is prohibited unless authorized and approved by the Board in writing.
3. The withdrawal of Water from any stream shall not exceed ten (10) per cent of the low flow of that stream unless approved by the Board in writing.
4. The Licensee shall submit to the Board for approval in writing, the following information at least thirty (30) days prior to the use of Water of a sufficient volume that the source water body may be drawn down: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.

5. The Licensee shall equip all Water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.
6. The Licensee shall not conduct any work below the ordinary High Water Mark of any water body unless approved by the Board in writing.
7. The Licensee shall not cause erosion to the banks of any water body and shall provide necessary controls to prevent such erosion.
8. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall locate areas designated for Waste disposal at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any water body such that the quality, quantity or flow of Water is not impaired unless otherwise approved by the Board in writing.
2. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
3. The Licensee shall not practice on-site land filling of domestic Waste, unless otherwise approved by the Board in writing.
4. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of Waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding Waters, unless otherwise approved by the Board in writing.
5. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes prior to any backhauling and disposal of Wastes to those communities.
6. The Licensee shall backhaul and dispose of all hazardous Wastes, Waste oil and non-combustible Waste generated through the course of the operation at a licensed waste disposal site.
7. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.
8. The Licensee shall contain all greywater in a Sump located at a distance of at least thirty-

one (31) metres above the ordinary High-Water Mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.

9. The Licensee shall contain all Toilet Wastes in latrine pits or use incineration, chemical, portable or composting toilets. Latrine pits shall be located at a distance of at least thirty-one (31) metres above the ordinary High-Water Mark of any water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the adjacent banks, except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
3. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of Water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
4. Stream crossing shall be a minimum of five hundred (500) metres from spawning areas.
5. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty-one (31) metres from the ordinary High-Water Mark in such a fashion that they do not enter the Water.
6. The Licensee shall not mobilize heavy equipment or vehicles for trenching or other activities unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.

PART F: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and 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 the Licence or the *Act*;
 - c. such Modifications are consistent with the NIRB Screening Decision;
 - 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.
2. Modifications for which all of the conditions referred to in Part F, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART G: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved the Plan entitled “Spill Contingency Plan – CAM-5” updated March 01, 2024, that was submitted as additional information with the Application.
2. The Licensee shall prevent any chemicals, petroleum products or Wastes associated with the Project 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 maintain secondary containment for hazardous waste and fuel storage area.
5. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the approved Spill and Fuel Management Plan;
 - b. Report the spill immediately to the NWT/NU 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4284; and
 - c. 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 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.

6. The Licensee shall, in addition to Part G, 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 H: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION

1. The Licensee shall complete all restoration work for the temporary camp facilities and waste disposal activities, prior to the expiry of this Licence or completion of the monitoring program.
2. The Licensee shall carry out progressive reclamation of any components of the Project no longer required for the Licensee's operations.
3. The Licensee shall backfill and restore all sumps, sewage/wash water pits to the pre-existing natural contours of the land.
4. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, water intakes, pumps and lines, material and equipment prior to the expiry of this Licence.
5. All roads and airstrips, if any, shall be re-graded to reduce erosion and sedimentation to Water.
6. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
7. All disturbed areas shall be stabilized and re-vegetated as required, upon completion of work, and restored as practically as possible to a pre-disturbed state.
8. 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, 2010. 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.

PART I: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall continue to implement the Monitoring Plan entitled "Water Use License Amendment and Renewal CAM-5, Mackar Inlet Landfill Monitoring" dated December 2012, which was previously approved by the Board.

2. The Licensee shall measure and record, in cubic metres, the daily quantities of any water withdrawn for monitoring and related purposes.
3. The Licensee shall provide the GPS coordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of Water are utilized for all purposes.
4. The Licensee shall determine the GPS coordinates (in degrees, minutes and seconds of latitude and longitude) and datum of all locations where Wastes associated with all operations are deposited.
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 in writing.
6. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
7. The Licensee shall include in the Annual Report required under Part B, Item 1, all data, monitoring results and information required by this Part.
8. An Inspector may impose additional monitoring requirements.

Table 1: DEW Line Clean-up Criteria

(From INAC Abandoned Military Site Remediation Protocol)
DEW Line Clean-up Criteria (DCC)⁶

Substance	Units	DCC Tier I ⁷⁸	DCC Tier II ⁹
Arsenic	ppm	-	30
Cadmium	ppm	-	5.0
Chromium	ppm	-	250
Cobalt	ppm	-	50
Copper	ppm		100
Lead	ppm	200	500
Nickel	ppm	-	100
Zinc	ppm	-	500
PCB's	ppm	1.0	5.0

⁶ These criteria were adopted specifically for the cleanup of Arctic DEW Line Sites from the 1991 versions of the Quebec Soil Contamination Indicators and the Canadian Council of Ministers of the Environment Interim Canadian Environmental Criteria for Contaminated Sites.

⁷ Soil criteria are given in parts per million, ppm.

⁸ Soils containing lead and/or PCBs at concentrations in excess of DCC I, but less than DCC II, may be landfilled,

⁹ Soils containing one or more substrates in excess of DCC II must be containerized - i.e. removed in a manner which precludes contact with the Arctic ecosystem.