



Water Resources Division  
Resource Management Directorate  
Nunavut Regional Office  
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Your file - Votre référence  
3BM-NAU2333  
Our file - Notre référence  
GCDocs#148173967

June 23, 2026

Richard Dwyer  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
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**Re: Crown-Indigenous Relations and Northern Affairs Canada's Review of the Modifications To The New Sewage Disposal Facility, Type B Water Licence No. 3BM-NAU2333**

Dear Richard,

Thank you for the June 9, 2026 invitation to review the referenced Modifications to the new sewage disposal facility, submitted by the Hamlet of Naujaat, for Type B Water Licence No. 3BM-NAU2333.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act* and provides the following Technical Review Memorandum for the Board's consideration.

If there are any questions or concerns, please contact me at (873) 800-5240 or [Pauline.Firmin@rcaanc-cirnac.gc.ca](mailto:Pauline.Firmin@rcaanc-cirnac.gc.ca) or Andrew Keim at (867) 975-4550 or [Andrew.Keim@rcaanc-cirnac.gc.ca](mailto:Andrew.Keim@rcaanc-cirnac.gc.ca).

Sincerely,

*Pauline Firmin*

Pauline Firmin, M. Sc,  
Regional Coordinator

## Technical Review Memorandum

**Date:** June 23, 2026

**To:** Richard Dwyer – Manager of Licensing, Nunavut Water Board

**From:** Pauline Firmin – Regional Coordinator, CIRNAC

**Subject: Crown-Indigenous Relations and Northern Affairs Canada’s Review of the Modifications To The New Sewage Disposal Facility, Type B Water Licence No. 3BM-NAU2333**

**Region:**      Kitikmeot    Kivalliq    Qikiqtani

### **A. BACKGROUND**

The proposed project is located at the Hamlet of Naujaat in the Kivalliq Region of Nunavut and concerns modifications to the municipal wastewater management system authorized under Water Licence 3BM-NAU2333. The project is being advanced by the Department of Transportation and Infrastructure, Municipal Works Division, Government of Nunavut, on behalf of the Hamlet of Naujaat.

The existing sewage disposal system consists of a trucked wastewater collection network that discharges sewage to a treatment area incorporating wetlands and natural treatment processes before final discharge to Hudson Bay. In 2023, the Nunavut Water Board renewed and amended Water Licence 3BM-NAU2333 to support municipal water use and waste disposal activities, including the future construction of a sewage lagoon to accommodate community growth.

The proposed modification seeks to modify the approved wastewater facility design to reflect updated engineering requirements. Proposed changes include: rerouting the access road to avoid a nearby solar facility, increasing the number of sewage truck discharge chutes from one to two, expanding the lagoon’s active storage volume from approximately 104,550 m<sup>3</sup> to 126,900 m<sup>3</sup> to provide about 20 years of treatment capacity, and making minor adjustments to the lagoon footprint. The revised design will continue using the existing wetland treatment area while improving operational efficiency and long-term wastewater management for the community. Construction of the new sewage disposal facility is planned between 2027 and 2028.

CIRNAC provides the following comments and recommendations pertaining to the application package. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.

**Table 1: Summary of Recommendations**

<b>Recommendation Number</b>	<b>Subject</b>
R-01	Increased capacity of the lagoon
R-02	Access road
R-03	Second chute pad monitoring point
R-04	Closure and reclamation plan

**B. DOCUMENTS REVIEWED AND REFERENCED**

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

**Table 2: Documents Reviewed and Referenced**

<b>Document Title</b>	<b>Author, File No., Rev., Date</b>
NWB Amendment and Renewal Licence No: 3BM-NAU2333	Nunavut Water Board, March 08, 2023
IFT Naujaat WWTF Drawings	Transportation & Infrastructure Municipal Works Division, Government of Nunavut, April 2026
3BM-NAU2333 Modification for Sewage Disposal Facility-IMLE	Transportation & Infrastructure Municipal Works Division, Government of Nunavut, June 1, 2026
3BM-NAU2333 NPC FILE #151212-Modification of Municipal Water Licence-IMLE	Nunavut Planning Commission, May 29, 2026

## C. RESULTS OF REVIEW

### 1. Increased capacity of the lagoon

#### **Comment:**

CIRNAC notes that the application proposed an increase in lagoon storage capacity to accommodate future wastewater volumes. The Wetland Treatment Area (WTA) remains the final treatment stage prior to discharge, with attenuation berms intended to provide flow attenuation and treatment before it's released to the receiving environment.

CIRNAC wishes to confirm that the Wetland Treatment Area:

1. Remains appropriately sized for the revised lagoon volume;
2. That the increased storage capacity will not result in increased hydraulic loading rates during seasonal discharge; and
3. That attenuation berms and wetland infrastructure are appropriately designed for the updated projected flows.

CIRNAC also wishes to confirm that the previously established effluent criteria, based on assumptions of the capacity of the receiving environment, will remain achievable with the potential increase in effluent being discharged due to the increase capacity of the lagoon into the receiving environment.

#### **Recommendation:**

(R-01) CIRNAC recommends that the proponent confirm that:

- a) The Wetland Treatment Area (WTA), including the attenuation berms and associated treatment infrastructure, has been assessed for the revised lagoon storage capacity and remains appropriately sized to manage projected wastewater volumes and discharge flows;
- b) The proposed increase in lagoon capacity will not result in increased hydraulic loading rates to the WTA during seasonal discharge operations, thereby maintaining the treatment performance assumptions upon which the facility design is based; and
- c) The existing effluent quality criteria established under Water Licence 3BM-NAU2333 remain achievable under the proposed modification, including consideration of any changes in discharge volume and the capacity of the receiving environment.

## 2. Access road

### Comment:

CIRNAC notes that the proposed modification also included access road alignment to avoid the adjacent solar facility, which is shown in the IFT Naujaat WWTF Drawings.

However, the road appears potentially close to a freshwater body.

CIRNAC seeks confirmation that the revised road maintains an appropriate setback of 31 m from the ordinary high water mark of waterbodies and does not result in adverse effects to surface drainage or adjacent aquatic environments and that measures will be put in place to prevent erosion and sediment deposition into waters during construction (Water Licence 3BM-NAU2333; Part C items 5, 6 and 7).

### Recommendation:

(R-02) CIRNAC recommends that the proponent confirms that the revised access road alignment:

- a) Maintains a minimum 31 m setback from the ordinary high-water mark of all nearby waterbodies;
- b) Has been assessed for potential effects on surface water drainage patterns; and
- c) Remains consistent with the water protection requirements of Water Licence 3BM-NAU2333, including the requirements to prevent erosion and sediment deposition into waters and to dispose of excavated materials a minimum of 31 m from the ordinary high-water mark. (Part C, Items 6 and 7; Part E, Item 7).

## 3. Second chute pad monitoring point

### Comment:

CIRNAC notes that the original wastewater treatment facility design included a single truck discharge chute, with the current monitoring program requiring measurements of wastewater quantities at Monitoring Station REP-3A (new truck offload point) and reporting of the monthly and annual quantities of effluent discharged from Monitoring Stations REP-3 and REP-3A (Part H, Items 1 and 4 of Water Licence 3BM-NAU2333).

CIRNAC further notes that the proposed modification includes the addition of a second wastewater truck discharge chute (Chute Pad #2) at a separate location from Chute Pad #1, as shown on Sheet C102 of the IFT Naujaat WWTF Drawings.

CIRNAC is concerned that the monitoring station at REP-3A will not capture the monthly and annual quantities of effluent discharge at the proposed Chute Pad 2. As such, the current REP-3A monitoring arrangement would not be sufficient to accurately quantify

total wastewater inputs to the lagoon, leading to inaccurate estimation of the lagoon capacity and performance at a given time.

**Recommendation:**

(R-03) CIRNAC recommends that the Nunavut Water Board consider whether additional monitoring locations or monitoring measures may be warranted to ensure wastewater inputs from both chute pads are adequately captured, so that the monitoring program continues to accurately measure and record the monthly and annual quantities of wastewater entering the lagoon, consistent with the requirements of Water Licence 3BM-NAU2333.

#### **4. Closure and reclamation plan**

**Comment:**

CIRNAC notes that the proposed modification includes the *“removal of the old sewage lagoon from the treatment process”* (3BM-NAU2333 NPC FILE #151212-Modification of Municipal Water Licence-IMLE). CIRNAC further notes that Part G, Item 1 of Water Licence requires the Licensee to submit an Abandonment, Restoration and Closure Plan to the Board *“at least six (6) months prior to abandoning any facilities or upon submission of the final design drawings for the construction of new facilities to replace existing ones.”*

CIRNAC is unclear whether removing the old sewage lagoon from the treatment process will signify a full closure of the facility requiring an Abandonment, Restoration and Closure Plan. No Abandonment, Restoration and Closure Plan has been submitted as part of the modification application package and the planned date of the removal of the old sewage lagoon from the process is not indicated.

**Recommendation:**

(R-04) CIRNAC recommends that the proponent clarify whether removing the old sewage lagoon from the treatment process will require an Abandonment, Restoration and Closure Plan. If it is the case, CIRNAC recommends that the proponent ensure that an Abandonment, Restoration and Closure Plan is submitted at the appropriate time according to licence requirements outlined in Part G, item 1 of Water Licence 3BM-NAU2333.