



Water Resources Division  
Resource Management Directorate  
Nunavut Regional Office  
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Your file - Votre référence  
3BM-WHA2126  
Our file - Notre référence  
GCDOCS#104032056

July 11, 2021

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 Water Licence 3BM-WHA2126 Amendment Application by the Government of Nunavut – Community and Government Services for Hamlet of Whale Cove**

Dear Richard Dwyer,

Thank you for your June 10, 2022 invitation to review the above-referenced water licence amendment application.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the amendment 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*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact me at [david.zhong@rcaanc-cirnac.gc.ca](mailto:david.zhong@rcaanc-cirnac.gc.ca).

Sincerely,

David Zhong,  
Regulatory & Science Advisor



## **Technical Review Memorandum**

**Date:** July 11, 2022

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

**From:** David Zhong, Regulatory & Science Advisor, CIRNAC

**Subject:** **Crown-Indigenous Relations and Northern Affairs Canada's Review of Water Licence 3BM-WHA2126 Amendment Application by the Government of Nunavut – Community and Government Services for Hamlet of Whale Cove**

**Region:** Kivalliq

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### **A. BACKGROUND**

The Hamlet of Whale Cove (the Licensee) is located approximately 72 kilometres south of Rankin Inlet, in the Kivalliq Region of Nunavut, at the geographical coordinates Latitude: 62° 11' N Longitude: 92° 35' W.

On March 26, 2021, the Nunavut Water Board (NWB) issued the Water Licence 3BM-WHA2126, authorizing the Hamlet of Whale Cove's use of Water and deposit of Waste for a Municipal Undertaking as defined under Schedule 1 of the *Nunavut Waters Regulations* and containing terms and conditions necessary to protect the freshwater environment and provide appropriate safeguards in respect of the Undertaking.

The Hamlet of Whale Cove's source of freshwater is Fish Lake. The Solid Waste Disposal Facilities are located approximately 3 km southwest of the community. The site covers an area of approximately 1.2 hectares and includes a landfill, bulky metals, and a household hazardous waste area. Sewage is trucked to a Sewage Disposal Facility located approximately 450 m to the southwest of the community. The facility is comprised of a truck offload discharge area, a single cell lined lagoon, and a natural wetlands area covering approximately 600 m before discharging into the Hudson Bay.

On June 10, 2022, the NWB provided notification of an amendment application of Water Licence 3BM-WHA2126, submitted by the Government of Nunavut – Community and Government Services (GN-CGS) on behalf of the Hamlet of Whale Cove.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the amendment 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*. A summary of the subjects of CIRNAC's comments and recommendations regarding the amendment application 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 are in Section C.

**Table 1: Summary of Comments and Recommendations**

Recommendation Number	Subject
R-01	Annual Inspection of All Engineered Facilities
R-02	Solid Waste Disposal Facilities
R-03	As-built Engineering Drawings

## **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**

Document Title	Author, File No., Rev., Date
Application_For_Water_Licence_Amendment	Elan Chalmers, Municipal Planning Officer, GN-CGS, March 1, 2022
Amendment Cover Letter	Elan Chalmers, Municipal Planning Officer, GN-CGS, May 13, 2022
Application Summary 2022	GN-CGS, 2022
Authorization Letter	Brian Fleming, Senior Administrative Officer, Municipality of Whale Cove
Water Licence 3BM-WHA2126	Nunavut Water Board, March 26, 2021
OM Plan Water Supply Whale Cove 2022	GN-CGS, 2022
OM Plan Sewage Whale Cove 2022	GN-CGS, 2022
OM Plan Solid Waste Whale Cove 2022	GN-CGS, 2022
Whale Cove QAQC Plan 2022	GN-CGS, 2022
Whale Cove Environmental Contingency Plan 2022	Municipality of Whale Cove, March 2022
Whale Cove WTP Planning Study 2022	Dillon Consulting, May 22, 2020
Plan for Compliance 2022	
NWB Response Municipal Geotechnical Inspections Issued for Tender B 50% - November 15 2021	Sergey Kuflevskiy, NWB, June 10, 2022 Government of Nunavut
NPC Letter re 149386	NPC, July 29, 2020
NPC File # 149625	NPC, November 24, 2021
NPC File # 149702	NPC, March 25, 2022



## C. RESULTS OF REVIEW

### 1. Annual inspection of all engineered facilities

#### **Comment:**

Part F, Item 4 of Water Licence 3BM-WHA2126 stipulates that *“(A)n inspection of all engineered facilities related to the management of Water and Waste shall be carried out by an Engineer (Civil, Municipal or Geotechnical) annually and before commissioning any facility. The Engineer’s report shall be submitted to the Board within sixty (60) days of the inspection, including a Cover Letter from the Licensee outlining an implementation plan addressing each of the Engineer’s recommendations.”*

In Section seven (7) of both the *Operation & Maintenance Plan for Whale Cove Municipal Water Licence: Solid Waste Disposal Facilities* and the *Operation & Maintenance Plan for Whale Cove Municipal Water Licence: Solid Waste Disposal Facilities*, GN-CGS stated that *“(T)he annual CIRNAC inspection will take place accompanied by the licensee and/or with a licensee representative from GN-CGS. The inspection report will be reviewed by a GN-CGS municipal engineer and submitted with the annual report.”*

The annual CIRNAC inspections are carried out to enforce compliance of the terms and conditions of a water licence, such as Part F, Item 4 of Water Licence 3BM-WHA2126. These inspections will not be served as replacements for the required annual inspection of all engineered facilities related to the management of water and waste to be carried out by an engineer.

Respecting GN-CGS’s recommendation that the municipality is the best party to identify potential issues with infrastructure, CIRNAC inspectors will facilitate GN-CGS’s efforts on this matter by documenting potential issues reported by the community and/or observed by CIRNAC inspectors during their annual inspections and ensuring the protection of the environment through enforcing compliance of the applicable water licence.

#### **Recommendation:**

(R-01) CIRNAC recommends that GN-CGS engineers be responsible for carrying out the required annual inspection of all engineered facilities, as required by Part F, Item 4 of Water Licence 3BM-WHA2126, with the assistance of municipal staff who carry out routine visual inspections of the facilities and report potential issues to GN-CGS engineers in a timely manner.



## 2. Solid waste disposal facilities

### **Comment:**

The licensee has indicated that due to the various issues identified in the current solid waste disposal facilities (e.g., the lack of a functioning landfarm, the need of landfill fence replacement, the lack of capacity in the municipality for implementing a proper waste segregation plan, and the lack of storage facilities for different types of waste disposal, particularly for the proper disposal of hazardous waste, etc.), the facilities will need to be upgraded to properly implement the *Operation & Maintenance Plan for Whale Cove Municipal Water Licence: Solid Waste Disposal Facilities*.

CIRNAC acknowledges the efforts made by the licensee in addressing the various issues and the proposed upgrade plans for the facilities in the *Plan for Compliance* in the coming years. For the short term prior to the completion of the proposed facility upgrade, CIRNAC remains concerned with the potential negative environmental impact caused by the improper disposal and storage of hazardous waste in the facilities and the seepage from the facilities into the natural environment.

### **Recommendation:**

(R-02) CIRNAC recommends that prior to the completion of the proposed facility upgrade, the licensee make additional efforts in managing hazardous waste in the facilities and mitigating seepage from the facilities.

## 3. As-built engineering drawings

### **Comment:**

The *Operation & Maintenance Plan for Whale Cove Municipal Water Licence: Sewage Disposal Facilities* included nine (9) as-built drawings for the construction works carried out on the sewage lagoon in 2016.

CIRNAC notes that these as-built engineering drawings were not signed or stamped by the qualified engineers.

### **Recommendation:**

(R-03) CIRNAC recommends that all as-built engineering drawings be signed or stamped by the qualified engineers.