



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
P.O. Box 100
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Your file - Votre référence
1BR-RBL1929
Our file - Notre référence
GCDocs#94877494

June 2, 2021

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada Review of the Post-Closure Monitoring Plan and Operations and Maintenance Manual for Resolute Bay Landfill Remediation Project), Type (B) Water Licence No. 1BR-RBL1929

Dear Mr. Dwyer,

Thank you for the May 13th, 2021 invitation to review the referenced licence Post-Closure Monitoring Plan and Operations and Maintenance Manual for Resolute Bay Landfill Remediation Project, submitted by Transport Canada, for Type B Water Licence No 1BR-RBL1929.

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*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact me at (306) 501-4047 or Andrew.Keim@Canada.ca.

Sincerely,

Andrew Keim,
Water Resources, Nunavut Regional Office
Crown-Indigenous Relations and Northern Affairs Canada
Andrew.Keim@Canada.ca / Tel : (306) 501-4047

Ressources hydriques, Bureau régional du Nunavut
Relations Couronne-Autochtones et Affaires du Nord Canada
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Technical Review Memorandum

Date: June 2, 2021

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

From: Andrew Keim, Water Resources, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada Review of the Post-Closure Monitoring Plan and Operations and Maintenance Manual for Resolute Bay Landfill Remediation Project, Type (B) Water Licence No. 1BR-RBL1929

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

The Resolute Bay Airport is five kilometres northwest of the Inuit hamlet of Resolute, adjacent to Resolute Bay on Cornwallis Island, Nunavut. Two historical landfills are located on the site and were previously identified along with a vehicle storage area (also referenced as metal storage area) as Areas of Environmental Concern (AEC) based on activities, historical and present, associated with the airport and local community. For reporting purposes, the AECs are referenced as the Inactive Solid Waste Landfill (AEC 1), Historical Landfill (AEC 2), and the Former Vehicle and Waste Metal Storage Area (AEC 3).

Site remediation took place over a two-year period from 2018 to 2019. The remedial tasks completed at the site included the removal of physical hazards (i.e., slope stabilization and capping at the landfills and debris removal), consolidation of waste and debris, off-site disposal of materials deemed hazardous by the NWB WL and the containment and control of contaminants in the surface water pathways prior to leaving the site and ultimately, discharging to receiving water bodies.

As of the creation of this report, the remediation is completed, operations and maintenance (O&M) activities, also known as long-term monitoring (LTM) will now begin. The goal of the O&M Manual is to ensure that during the lifespan of monitoring activities, the current and future risks to human health & environment are negligible from a physical standpoint and the goal of the LTM Plan is to ensure that present and future risks to human health and the environment from the site conditions post-remediation are negligible and that monitoring, at some point in the future, could be terminated with confidence based on findings of no risk and no depreciation of the site's environmental status.

CIRNAC provides the following comments and recommendations pertaining to the Management Plans. Documents reviewed as part of this submission can be found in Table 1 of Section B. Detailed technical review comments can be found in Section C.



B. DOCUMENTS REVIEWED

The following table (Table 1) provides a summary of the documents reviewed under the submission.

Table 1: Documents Reviewed

Document Title	Author, File No., Rev., Date
Post-Closure Monitoring Plan for the Resolute Bay Airport Landfill, Resolute Bay, Nunavut	Dillion Consulting Ltd. and Outcome Consultants Inc. December 2020. PSPC Project R.112072.001
Operations and Maintenance Manual Resolute Bay Landfill Remediation Project, Resolute Bay, Nunavut	Dillion Consulting Ltd. and Outcome Consultants Inc. December 2020. PSPC Project R.095508.001
Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories	Mackenzie Valley Land and Water Board & Aboriginal Affairs Northern Development Canada, 2013



C. RESULTS OF REVIEW

1. Monitoring

Comment:

A review of the materials provided include a plan that consists of natural environment monitoring, visual monitoring, water monitoring, and thermal monitoring at the three locations identified as Areas of Environmental concern and where remedial activities have taken place.

Activities and methods of monitoring include:

- Ground water wells and sampling
- Natural environmental monitoring (consultations)
- Surface water and seepage monitoring
- Thermal monitoring

The proponent has also included a Quality Assurance and Quality Control (QA/QC) procedure in accordance with the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.

The proposed Monitoring Program schedule provided includes scheduled monitoring to be conducted in years 1, 3, 5, with further monitoring to be treated as a contingency. CIRNAC would prefer to view the entire monitoring program for all 25 years as required and only modified if site conditions reflect the ability to do so.

Recommendation:

(R-01) CIRNAC recommends that all post-closure monitoring continue for the intended 25 years, or until such time as the physical and chemical stability of the site has been verified. The Licensee could then apply to the Nunavut Water Board to have the duration of sampling and monitoring reassessed.

2. Spill Contingency and Response Planning

Comment:

The Spills & Discharges – Contingency & Emergency Response Plan as provided does not include contact information for CIRNAC as the lead regulatory agency with jurisdiction over spills on land or into waters as a result of activities undertaken under the authority of an issued Water License.



Recommendation:

(R-02) CIRNAC recommends the next revision of the Response Plan and Operations Manuals identify CIRNAC and Field Operations as the responsible authority related to any release of hazardous materials or spills.

D. REFERENCES

Works Cited

<i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i>	Mackenzie Valley Land and Water Board & Aboriginal Affairs Northern Development Canada, 2013
<i>The Abandoned Military Site Remediation Protocol</i>	Indigenous and Northern Affairs Canada, 2008
Guidelines for Spill Contingency Planning	Water Resources Division, Indian and Northern Affairs, Government of Canada, 2007.