

Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 006/006
NIRB File: NIRB 125993/24XN043



October 31, 2025

via email at: info@nirb.ca

Francis Emingak
Screening Officer
Nunavut Impact Review Board
29 Mitik Street
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Dear Francis Emingak:

RE: NIRB 125993/24XN043 – Government of Nunavut – Renewal and Amendment of the Municipality of Resolute Bay Solid Waste Facility, Water License # 3BM-RES2025 Project Proposal

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) by the Government of Nunavut (“the Proponent”) regarding the above-mentioned Municipality of Resolute Bay water license renewal and amendment for the Solid Waste Facility Project Proposal.

ECCC provides expert information and knowledge to project assessments on subjects within the department’s mandate, including climate change, air quality, water quality, biodiversity, environmental emergencies preparedness and responses. This work includes reviewing proponent characterization of environmental effects and proposed mitigation measures. We provide advice to decision-makers regarding a proponent’s characterization of environmental effects, the efficacy of their proposed mitigation activities, and may suggest additional mitigation measures. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

1. Detailed information on the design and mitigation measures

Reference(s)

- Resolute Bay NU, Solid Waste Management Planning Study, Final Report (Dillon Consulting, 2021)



- Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document (Environment and Climate Change Canada, 2017).
- 250828-24XN043-Revised NIRB Application-IR1E

Comment

There is currently insufficient information on the proposed solid waste facility's mitigation measures and design specifications, making it difficult to confirm that potential impacts under federal jurisdiction—such as those on surface water, fish, and fish habitat—will be adequately mitigated. Although Site A has been identified as the preferred location for the new solid waste facility, the Proponent has not provided a detailed layout of its components. As a result, key questions remain about how the Project will ensure that environmental receptors are protected from accidents or malfunctions associated with the facility's operation.

Effective mitigation of risks associated with waste disposal facilities typically involves the inclusion of monitoring wells and monitoring programs to detect any potential leachate seepage. The Proponent does not discuss the planned specifications for the various divertible waste areas or the leachate ponds. It remains unclear whether these areas will possess geomembrane liner or how the design will prevent the release of leachate into the environment. Measures such as stormwater management, snow clearing, and daily cover can also reduce precipitation infiltration and minimize leachate generation; however, these practices are not addressed in the current documentation.

The Proponent also indicates that a 10,000-litre diesel storage container will be located on site, yet no associated mitigation measures are described. The inclusion of a dedicated refueling area equipped with secondary containment and spill kits would be important to reduce the risk of spills during refueling activities.

If Site A is selected, its proximity to Allen Bay and Parry Channel raises additional concerns, as these water bodies could be affected by leachate seepage or the release of hazardous materials, potentially resulting in adverse effects on fish, fish habitat, and surface water quality. While Sites A and B are located on bedrock, the Proponent notes that severely fractured bedrock was observed in boreholes, which could increase the potential for seepage and may not represent optimal conditions, as identified in Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document (p.22) by ECCC.

Furthermore, the Proponent does not explain how recommendations from the 2021 Solid Waste Management Planning Study will be integrated into the Project design.

ECCC Recommendation(s)

ECCC recommends that the Proponent provide detailed information on the design and mitigation measures for the proposed solid waste facility to ensure that potential adverse effects resulting from accidents and malfunctions on surface water, fish, and fish habitat are appropriately mitigated. Specifically, the Proponent should:

- Provide a detailed layout of the solid waste facility, including the location and design specifications of leachate ponds and divertible waste areas;

- Describe how leachate will be contained and managed, including, if appropriate, the use of geomembrane liners, stormwater management, snow clearing, and daily cover to prevent infiltration and reduce leachate generation;
- Include plans for monitoring programs to detect potential seepage;
- Identify mitigation measures associated with on-site fuel storage, including the use of secondary containment, designated refueling areas, spill trays and spill response kits; and
- Clarify how recommendations and conceptual design elements from the 2021 Solid Waste Management Planning Study will be incorporated into the Project design.

These details are necessary to confirm that adequate measures will be implemented to prevent contamination of nearby waterbodies such as Allen Bay and Parry Channel and to mitigate risks to fish, fish habitat, and surface water quality.

If you need more information, please contact Jennifer Sabourin at Jennifer.Sabourin@ec.gc.ca.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Sabourin', with a stylized, cursive script.

Jennifer Sabourin
Environmental Assessment Officer

cc: Eva Walker, Head, Environmental Assessment North (NT and NU)