



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
P.O. Box 100
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Your file - Votre référence
2AM-BRP1831
Our file - Notre référence
GCDOCS# 105914996

September 21, 2022

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's Review of the
Landfill and Waste Management Plan for the Back River Project, Type A Water
Licence No. 2AM-BRP1831**

Dear Richard,

Thank you for the September 1, 2022 invitation to review the Landfill & Waste Management Plan, submitted by Sabina Gold & Silver Corp., for its Type A Water Licence No. 2AM-BRP1831.

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 (867) 975-3877 or Joyce.Demers@rcaanc-cirnac.gc.ca or Andrew Keim at (867) 975-4550 or Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

Joyce Demers, B.Sc.,
Industrial Coordinator



Technical Review Memorandum

Date: September 21, 2022

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

From: Joyce Demers – Industrial Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's Review of the Landfill & Waste Management Plan for the Back River Project, Type A Water Licence No. 2AM-BRP1831

Region: ☒ Kitikmeot ☐ Kivalliq ☐ Qikiqtani

A. BACKGROUND

The Back River Project, owned by Sabina Gold & Silver Corp. (Sabina), operates in the Kitikmeot region of Nunavut, 400 km southwest of Cambridge Bay, 95 km southeast of Bathurst Inlet and 520 km northeast of Yellowknife, Northwest Territories.

The Back River Project is currently operating under water licence number 2AM-BRP1831 and NIRB Project Certificate Number 007. Sabina sent a revised Landfill and Waste Management Plan (the Plan) to the Nunavut Water Board for approval on September 1st, 2022. The proposed revisions reflect the construction phase waste management activities, which are planned to occur before the creation of the landfill, and during the closure phase to align with the overall project approach of waste management. The proposed revisions are intended to compliment and remove overlap between related waste management plans.

The Plan covers the outline for waste segregation and managing waste materials approved for landfilling and/or open burning. The Plan also outlines future plans to create a landfill within the Waste Rock Storage Area;. A landfill design and construction report will be provided by the applicant (Sabina), a minimum of 60 days before construction.

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

Recommendation Number	Subject
R1	Location of Stored Waste Prior to Construction of the Landfill
R2	Storage of Waste in Quarries
R3	Storage of Waste Outdoors
R4	Location of the Burn Cage is Unclear in Relation to Water Bodies

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
220901 2AM-BRP1831 Landfill & Waste Management Plan-IMLE	Sabina Gold & Silver Corp, August 2022



C. RESULTS OF REVIEW

1. Location of Stored Waste Prior to Construction of the Landfill

Comment:

In Section 6. LWMP Waste Management Infrastructure, Sabina states that “Landfill waste may be temporarily stored in containers or totes or inactive quarries while Operations Phase waste management facilities are constructed”. Sabina also states under landfill waste that “Prior to construction of the WRSAs, which will be developed during mining activity, landfill waste will be securely stored at designated locations until landfilled”, and under Incineration and Open Burn wastes that waste “will be temporarily stored in dedicated bins near to the incinerators or burn cage until they are ready to be incinerated/burnt”.

It is unclear where waste will be stored prior to the completion of the landfill, or prior to burning.

Without adequate distance from waste storage to water bodies, there may be incidences where waste could be stored outside appropriate containment areas, raising risks for potential release of deleterious substances into water bodies.

Recommendation:

(R-01) CIRNAC recommends that the applicant clarify the location of the waste storage area(s) and indicate if all waste be stored will be a minimum of 31 meters away from any water body.

2. Storage of Waste in Quarries

Comment:

In Section 6. LWMP Waste Management Infrastructure, Sabina states that “Landfill waste may be temporarily stored in containers or totes or inactive quarries while Operations Phase waste management facilities are constructed. Quarries used would be those with a bedrock base sloped to prevent any runoff”. CIRNAC notes that, though the slope of the proposed quarries could prevent runoff, there is still potential for winds to spread the waste to surrounding environments. It is unclear what other measures the applicant proposes to prevent wind-blown debris from escaping containment and potentially entering nearby water bodies.

Recommendation:

(R-02) CIRNAC recommends that the applicant provide more information as to how wastes will be contained within quarries.



3. Storage of Waste Outdoors

Comment:

In Section 6.2 Temporary Waste Storage Facilities Sabina states that “The majority of other items will be stored in the laydown yard outdoors, or in shipping containers where appropriate.”

It is unclear if loose waste will be placed in the outdoors or if the waste will first be placed in a containment unit. This is a concern due to the potential for winds to spread the waste into nearby water bodies.

Recommendation:

(R-03) CIRNAC recommends that the applicant provide more information as to how the waste will be contained outdoors.

4. Location of the Burn Cage is Unclear in Relation to Water Bodies

Comment:

Under Section 6.3 Open Burning Sabina states that “The burn cage is located on a vegetation-free pad (such as within an inactive quarry or seacan) and burning is not undertaken on high-wind days.”

The location of the burn cage while in operation remains unclear, as does the proposed method/timing for the removal of the ash from the burn cage. This is a concern as there is a potential for winds to spread ash and cinders into nearby water bodies.

Recommendation:

(R-04) CIRNAC recommends that the applicant clarify whether the burn cage will be kept a minimum of 31 meters away from any water body. CIRNAC also recommends that the applicant provide additional information on its proposed methods for collecting and storing ash waste including potential location(s) for ash disposal.