

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6100 000 115/004
NWB File: 2AM-BRP1831



August 29, 2019

via email at: licensing@nwb-oen.ca

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer:

RE: 2AM-BRP1831 – Sabina Gold & Silver Corporation – Requested Change to Schedule I of 2AM-BRP1831 Water Licence

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned water licence change request. This letter and comment provides ECCC's specialist advice based on our mandate, in the context of the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

The following comment is provided:

1. Compliance Location and Monitoring Frequency

Reference(s)

- Sabina Gold & Silver Corporation. 2019. Letter to NIRB – Re: Sabina Gold & Silver Corp. Type A Water Licence 2AM-BRP1831 Request for Change to Schedule I.

Comment

Greywater discharges at the Marine Laydown Area are treated through an oil and grease separator prior to discharge to the tundra. Currently this effluent must be monitored prior to any discharge, and must meet specified criteria for BOD5, Total Suspended Solids, Fecal Coliforms, Total Oil and Grease, and pH. The Proponent noted that due to multiple discharge events (every few hours or days); sampling is required at an impractical frequency. The Proponent has not provided any data on monitoring results for the greywater discharges, and these did not appear to be available on the NWB or Nunavut Impact Review Board (NIRB) public registries.



The Proponent proposes amending the frequency and monitoring location of the effluent to monthly samples being taken at the entry point to the marine environment. ECCC notes that the requirement to sample prior to discharge is consistent with other licences for land discharges, and that once the effluent is released, there is no point of control at the marine entry. Sampling at the marine entry point would confirm TSS and no erosion resulting from the discharge, but the Proponent would also have no control over weather events or other unexpected sources that could affect the quality of effluent entering the marine environment. There would also be the seasonal aspect; discharges from the greywater treatment system can be sampled year-round, but marine point of entry samples would only occur during the summer.

The overland flow path is predicted to potentially provide additional treatment (settling and potential wetland treatment). However, ECCC notes that the terrestrial environment is not part of the effluent treatment system and that a basic effluent quality must be achieved prior to discharge to ensure acceptable quality prior to entering the marine receiving waters. It would be a reasonable approach to reduce sampling to monthly at the effluent discharge point, and if the Proponent intends to pursue moving the compliance point to the marine entry location, then paired samples from there would allow evaluation of the change in quality.

ECCC Recommendation(s)

ECCC recommends that:

- The compliance point for graywater (BRP-42) remain at the point of discharge to the land.
- Sampling frequency be reduced to monthly.

Please contact Emily Nichol at (867) 669-4732 or Emily.Nichol@Canada.ca should you require more information.

Sincerely,

[original signed by]

Emily Nichol
Environmental Assessment Coordinator

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)