



Water Resources
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

August 30, 2019

Via email to: licensing@nwb-oen.ca

Richard Dwyer
Manager of Licencing
Nunavut Water Board
Gjoa Haven, NU, X0E 1J0

Dear Mr. Dwyer:

Re: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC) review of Sabina Gold and Silver Corporation's (Sabina) Request to Change Schedule I under water licence 2AM-BRP1831

Dear Mr. Dwyer,

Thank you for your email on August 9, 2019, concerning the above mentioned Request.

CIRNAC's review and comment is provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*.

Please do not hesitate to contact me by telephone at (867) 222-9278 or email at ian.parsons@canada.ca for further comments or any questions.

Sincerely,

Ian Parsons, B.Sc.
Regional Coordinator Water Resources

CIRNAC reference
CIDM# 1260705

NWB reference
#2AM-BRP1831



Results of Review

1) Effluent pipeline and Discharge Rate

Comment: Golder has stated in their Technical Memorandum that the effluent (greywater) will be discharged discontinuously over the tundra at low slope and in more rocky areas. However, the Golder memorandum did not give any discharge rates for the effluent or modelling to confirm that the discharge will not cause erosion, channelling or that this way of discharging will meet the specified water quality limits.

In addition, the Memorandum did not state whether or not there would be a platform or concrete slab that the end of pipe discharge would empty onto.

Recommendation: CIRNAC recommends the licensee provide discharge rates of the effluent and modelling to demonstrate that the discharge of effluent to the tundra will not cause erosion nor channelling, and that the effluent will meet discharge water quality limit requirements.

CIRNAC also recommends the Licensee provide more detailed information on how the discharge from the pipeline will be received in the environment (tundra). If no physical structure will be built to accommodate the pipeline discharge, CIRNAC recommends attaching photos of the area where the pipeline will discharge into the environment (tundra), and a description/modeling on how the environment will naturally resist erosion and channelling, and meet discharge water quality limit requirements.

2) Monitoring

Comment: The Golder memorandum states that the monitoring frequency should be monthly. CIRNAC recognizes that the impacts of discharging the effluent onto the tundra are unknown, in terms of meeting effluent quality limits, erosion and/or channelling effects.

Recommendation: CIRNAC recommends that the water quality monitoring should be weekly until the erosion and/or channelling effects and effluent quality limits have been characterized.