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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: **2AM-BRP1831**

September 19, 2019

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RE: Type “A” Water Licence No. 2AM-BRP1831, Back River Project – Nunavut Water Board Response to Request for Revision of Schedule I by Sabina Gold & Silver Corp.

Dear Mr. Pickard and Mr. Keefe:

This letter is a response to the correspondence provided by Sabina Gold & Silver Corp. (Sabina or Licensee) to the Nunavut Water Board (NWB or Board) on August 08, 2019 requesting modifications to Schedule I of Water Licence No. 2AM-BRP1831 (Licence) related to the sampling location and sampling frequency of the Marine Laydown Area (MLA) greywater effluent discharge.

In its request, Sabina notes that the Licence *“imposed more stringent requirements for regulating the effluent discharge than what is required to protect the marine receiving environment”*. Therefore, *“the general monitoring requirements (i.e. description and frequency) of Monitoring Station BRP-42 need to be changed to accurately reflect receiving environment guidelines”*.

Sabina suggests that the greywater discharge at the MLA should be monitored *“at the point of entry into marine receiving environment rather than the upslope discharge point to land”* to ensure compliance with the Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories (NWTWB, 1992) adopted by the NWB. Additionally, Sabina proposes a monthly, rather than on each transfer, sampling frequency during camp operation to align with other Type “A” water licenses.

As part of this request, Sabina provided the June 2019 Addendum to the currently approved Water Management Plan, which captures the proposed changes and incorporates additional mitigation strategies proposed for greywater handling at the MLA.

The NWB information relevant to the proposed modifications is available from the Board's ftp site using the following link:

<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-BRP1831%20Sabina/3%20TECH/I%20AQUATIC%20EFFECTS%20MONITORING/I19%20Schedule/>

On August 9, 2019, Sabina's submission was distributed for public review with a deadline set at August 30, 2019. On or before the deadline for comments, the NWB received comments from the Kitikmeot Inuit Association (KIA), Environment and Climate Change Canada (ECCC), and Crown-Indigenous Relations and Northern Affairs (CIRNA).

In its comments, KIA agreed with the change to monitoring frequency but requested clarification on *"how the ultimate monitoring point will be selected to assess compliance with the discharge criteria"* and whether it *"will be on land as opposed to within the marine environment itself"*.

ECCC did not express any concerns with reducing sampling frequency to monthly but proposed to leave the compliance point at the point of discharge to the land and noted that *"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"*.

CIRNA recommended the Licensee to *"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"*. CIRNA proposed to set the monitoring frequency at weekly *"until the erosion and/ or channelling effects and effluent quality limits have been characterized"*. Additionally, CIRNA requested to *"provide more detailed information on how the discharge from the pipeline will be received in the environment (tundra)"* and whether any physical structure will be built at the end of the pipe to accommodate the pipeline discharge.

On September 4, 2019, Sabina provided its response to comments, clarifying that *"the monitoring associated with BRP-42 is proposed to take place on land, along the effluent release pathway, and prior to entry of the water into the ocean"* and that *"the exact monitoring location will be determined in the field and in consultation with the Inspector"*. To address the ECCC concerns Sabina noted that the MLA camp is intended to support seasonal operations with a limited *"domestic water use and greywater discharge [...] analogous to that of a small exploration camp"* averaging at 1.3m³/day as per the 2019 summer season. Sabina also reconfirmed that *"the updated compliance monitoring location should be changed to accurately reflect receiving environment guidelines"* and committed to implementing the Water Management Plan *"for protection of the receiving environment and effective mitigation"*. In its response to CIRNA's comments Sabina clarified that they *"will further diffuse flow and reduce channelization potential by placing an aggregate pad underneath the point of discharge"* and noted that *"no erosion or channelization impacts have occurred to date due to this discharge"*.

On September 5, 2019, Sabina's response was distributed to the parties for confirmation whether their concerns were fully addressed or not. On September 9, 2019, September 10, 2019 and

September 12, 2019, the Board received confirmation of satisfaction from KIA, ECCC, and CIRNA, respectively.

To prepare the Board's response as to whether the proposed changes meet the requirements for a Modification as set out in Part G of the Licence, the NWB has reviewed the information provided with Sabina's August 8, 2019 request for Change to Shedule I and the Licence for consistency with the proposed changes. Part B, Item 19 of the Licence states:

“If the Board subsequently determines that an item in any of the Schedules requires revision in order to better reflect the intent and objectives of the Licence, the Board may at its discretion, and upon consulting and providing written notice to the Licensee and interested parties, revise the Schedule accordingly. Unless the Board directs otherwise, such revision may not necessarily be considered as an “Amendment” to the Licence.”

The Board's opinion is that proposed modifications generally meet the requirements of Part G of the Licence, including provision of at least sixty (60) day advance notice for the proposed modifications. On the basis of technical review, the Board accepts that the changes proposed in Sabina's August 8, 2019 letter do constitute modifications that are consistent with the existing terms and conditions of the Licence and has approved these modifications through the Board Motion No. 2019-A1-007, dated September 18, 2019, as required by Part G, Item 2 of the Licence.

The new monitoring requirements for Monitoring Station BRP-42 in Table 2 of Schedule I should read as follows:

Monitoring Program Station	Monitory Type	Description	Mine Phase	Group Code ¹	Frequency
BRP-42	Regulated Monitoring	MLA Greywater (representative drainage at point of entry to the marine receiving environment)	Construction to Closure	A, F	Monthly when discharging

1. Schedule I – Table 1 defines monitoring groups A to J and provides a descriptor and associated parameters to be monitored. Specifically, Group Code A represents field chemistry with monitoring for pH, specific conductivity and temperature, and Group Code F represents Sewage with monitoring for Biochemical Oxygen Demand (5-day), TSS, Fecal Coliform, ammonia, phosphorus, Oil and Grease, pH.

The Board's understanding is that although the proposed monitoring location is close to marine environment, the effluent discharge along with the effluent release pathway are on land with a potential impact on freshwater. Therefore, the associated monitoring will continue to be regulated.

Additionally, the Board has reviewed the June 2019 Addendum to Water Management Plan provided as part of Sabina's August 8, 2019 submission and determined that the additional/updated information addresses the requirements of current Water Licence. However, the NWB reminds the Licensee that a consolidated updated Water Management Plan shall be submitted within the 2019 Annual Report.

The Board notes that all relevant documents and plans shall be updated to reflect the changes in Schedule I. All updated documents shall be included within the 2019 Annual Report.

Should you have any questions regarding this matter, please contact the undersigned at (867) 360-6338 (extension 29) or by e-mail sergey.kuflevskiy@nwb-oen.ca, at your earliest convenience.

Sincerely,



Sergey Kuflevskiy
Nunavut Water Board,
Technical Advisor

Cc: Distribution List – Back River Project