



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
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Your file - Votre référence
2AM-BRP1831
Our file - Notre référence
GCDOCS# 106584280

October 24, 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 (CIRNAC) Response to Sabina Gold and Silver Corp. Reply to CIRNAC's Recommendations made pursuant to our review of the Annual Report for the Back River Project, Type A Water Licence No. 2AM-BRP1831

Dear Richard ,

Thank you for the October 3rd , 2022 invitation to provide comment on the responses provided by Sabina Gold and Silver Corporation's, related to CIRNAC's recommendations, on the 2021 Annual Report for the Back River Project's Type A Water Licence No. 2AM-BRP1831.

CIRNAC examined the Licensee's responses and provides the following comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact me at (867) 975-4550 or Andrew.Keim@canada.ca

Sincerely,

Andrew Keim

Andrew Keim
Regional Manager
Water Resources, Nunavut Regional Office
Crown-Indigenous Relations and Northern Affairs Canada



Technical Review Memorandum

Table 1: Summary of CIRNAC's Recommendations provided to the NWB and based on Sabina Gold and Silver Corporation's submitted annual report

Recommendation Number	Subject
R-1	Use of Water
R-2	Water and Load Balance
R-3	Waste Management and Reporting
R-4	Monitoring program- Shallow Ground water monitoring
R-5	Monitoring Program – Reporting
R-6	Monitoring Program – General Monitoring
R-7	Updating of Plans, Manuals and Reports
R-8	Tailings Management Plan
R-9	Updated Waste Rock Management Plans – Locations
R-10	Updated Waste Rock Management Plans – PAG Vs Non-PAG
R-11	Updated Waste Rock Management Plans – Volumes
R-12	Updated Water Management Plan

CINAC's submission will follow the above list.

A. RESULTS OF REVIEW

1. Use of Water

Comment:

In the 2021 Annual Report, Sabina states that “*No freshwater was withdrawn under this licence in 2021.*” Sabina further states that freshwater for use at the MLA was obtained from Bathurst Inlet, water use for the Goose Exploration Camp was reported in the annual report for the exploration licence 2BE-GOO2028, and construction of the Winter Ice Road did not occur during 2021.

It is also stated in the 2021 Annual Report that activities related to the airstrip and road network occurred at the Goose site in 2021. The amended NWB Water Licence 2BE-GOO2028 specifies that activities related to the Goose airstrip, airstrip quarry, and ice road connecting the camp to the quarry are included under Water Licence 2AM-BRP1831.

Reference:

2021 Annual Report for Water Licence 2AM-BRP1831, Pages 1-4 to 2-6 (Sabina, March 2022)



Recommendation:

(R-01) CIRNAC recommends that Sabina clarifies whether any of the activities carried out in 2021 at the Goose site, or any other Back River Project site, fall under Water Licence 2AM-BRP1831 and provide further justification for why they do not report any fresh water use under this licence. If any of the 2021 activities do fall under Water Licence 2AM-BRP1831 and involved use of fresh water, provide details on the monthly and annual volumes used from all sources.

Sabina Gold and Silver Corp. Reply:

Freshwater use from Goose Lake was reported under the Goose exploration water licence 2BE-GOO2028 as exploration facilities are still in use, namely the Goose exploration camp and associated water withdrawal and discharge infrastructure.

Sabina intends to switch to reporting water use under the Type A Water Licence as each mine facility is commissioned, including the mine's camp water uptake line and sewage treatment plant. In the interim, Sabina has continued to report all water uses transparently under the most appropriate water licence, depending on the infrastructure in use (exploration vs mine), rather than double reporting this use. All data are available publicly on the NWB registry and the 2021 2AM-BRP1831 Annual Report clearly directs readers to Sabina's 2BE-GOO2028 Annual Report for water quantities used at Goose Exploration Camp. Additionally, as this information is reported under the Type B exploration water licence both reporting and compliance is held to the significantly more restrictive Type B requirements related to camp water use, which include daily (rather than monthly for Type A) tracking of water usage, daily (rather than annual for Type A) water use allotments, and a lower overall water allocation.

Although this seemed the most logical and transparent way to report under these overlapping licences, Sabina is aware this is not the only way it could be done. If CIRNAC would prefer that water use be reported under the Type A Annual Report Sabina can make this change in the 2022 Annual Report.

CIRNAC's Response to Reply:

Sabina's answer is sufficient to answer the question posed. CIRNAC looks to ensure that all water usage is currently tracked under the appropriate authority. Given activities on site included construction CIRNAC was seeking clarity to ensure all water use was recorded.

2. Water and Load Balance

Comment:

In the 2021 Annual Report, Sabina states that it is currently updating the Water and Load Balance, and has submitted notification to the NWB in regard to this update and a submission timeline (August 2022).



Reference:

2021 Annual Report for Water Licence 2AM-BRP1831, Page 2-6 (Sabina, March 2022)
Back River Project Water Management Plan, Pages 6-1 to 6-2 (Sabina, April 2022)

Recommendation:

(R-02) CIRNAC requests that Sabina provide a summary update to the Water and Load balance results. This update was to have been provided within the timeline as set in the licence. Since the timeline has elapsed, this summary update must be provided as soon as possible.

Sabina Gold and Silver Corp. Reply:

Sabina confirms that the updated Back River Project Water and Load Balance Report (Sabina 2022) were submitted to the NWB for consideration on August 30, 2022. Sabina acknowledges that summary of the Water and Load Balance in the 2022 Annual report due is in March 2023 (Type A Water Licence 2AM-BPR1831, Amendment No.1, Schedule B, Item 5) and looks forward to receiving any review comments on that submission.

References:

Sabina (Sabina Gold & Silver Corp.). 2022. Back River Project Water and Load Balance. Submitted to the Nunavut Water Board. 30 August 2022.

CIRNAC's Response to Reply:

CIRNAC acknowledges receipt of the updated Back River Project Water and Load Balance Report (Sabina 2022) were submitted to the NWB for consideration on August 30, 2022. CIRNAC has provided responses to the Report and looks forward to Sabina's comments on our recommendations.

3. Waste Management and Reporting

Comment:

Annual quantities of waste generated were not disclosed in the 2021 Annual Report, which does not meet the requirements of Schedule B General Condition (GC) #9.

In the 2021 Annual Report under Part B of Appendix A, Waste Management and/or Disposal, "Hazardous" is not checked when it appears it should have been. Table 1 of Appendix B, Waste Disposal lists hazardous wastes that were shipped offsite to KBL Environmental. The Table 1 caption does not make it clear the wastes included in this table are hazardous. Additionally, the format of this table does not comply with GC #9 as the quantities (volumes) of the shipment are not disclosed and the annual quantity of each waste type is not disclosed. Manifest numbers are listed under the dates, not in a separate column which creates confusion. There were no manifests listed for the shipment that occurred on August 17, 2021.



Under Part B, 2 Additional Details of Appendix A, NWB Annual Report Form of the 2021 Annual Report, the NWB Annual Report Form states that the reviewer should “*See Section 2.9 of this report for wastes disposed of in 2020*”. Section 2.9 of the 2021 Annual Report describes waste disposal activities occurring in 2021, not 2020. This may be a typographical error.

In Table 2 of Appendix B, Waste Disposal, of the 2021 Annual Report, the 2021 monthly waste quantities were reported in pounds (lbs) and litres (L) instead of cubic metres.

Reference:

2021 Annual Report for Water Licence 2AM-BRP1831, Page 2-10, Appendix B, Appendix A (Sabina, March 2022)

Recommendation:

(R-03) CIRNAC recommends;

- Sabina report the 2022 monthly and annual quantities of waste generated in cubic metres in the 2022 Annual Report.
- Sabina is to ensure to include in the 2022 report information on the hazardous wastes shipped off site. CIRNAC also recommends that SABINA update the format and content of Table 1 to comply with Schedule GC #9 and check the “Hazardous” box on the NWB Annual Report form if it applies. The territorial manifest number should be included in a separate column from the date, and the total waste volumes in cubic meters should be included where appropriate, not just the amount of each item per load.
- Sabina provide further information on the reason as to why there are no manifest numbers listed for the shipment that occurred on August 17, 2021.
- Sabina further ensures the NWB Annual Report Form included in the 2022 Annual Report is updated to reflect 2022 wastes.

Sabina Gold and Silver Corp. Reply:

Sabina will adopt these recommended changes in the 2022 Annual Report and will ensure the report form indicates 2022 wastes. It is noted that many wastes are more amenable to tracking by weight or quantity (e.g., lead-acid batteries, fire extinguishers, drums of scrap steel or other wastes, tires, etc.) and volume estimates are not as easily obtained or potentially as appropriate.

Sabina has also looked into the 2021 backhaul data reported and found errors that are now corrected in a revision to Table 1 of the 2021 Annual Report below. Corrections include removal of backhaul load dated 17 August 2022 (which was a duplication of the 14 May 2022 backhaul) and the inclusion backhaul loads received 17 September and 17 December. Sabina has also separated the date and manifest number into separate columns as recommended by CIRNAC.



Table 1. [Corrected] Quantities Shipped Off Site to KBL Environmental in 2021

Date Received	Manifest #	Waste Stream	Qty
05-14-2021	NT19833-2	BATTERIES - LEAD ACID - EACH	13
		COMPRESSED GAS - FIRE EXTINGUISHER - EACH	2
05-14-2021	NT19835-7	BATTERIES - LEAD ACID - EACH	16
		BATTERIES - NON SPILLABLE-EACH	1
07-31-2021	NT23519-1	FLAMMABLE LIQUID - FUEL - DRUM	7
		WASTE LEACHATE OIL - DRUM	2
		INCINERATOR ASH - DRUM	36
		SCRAP METAL - DRUM	3
09-17-2021	NT17625-4	INCINERATOR ASH - DRUM	16
		METAL FILTER - DRUM	1
		NON-REG SOLID - WHITE GOODS - EACH	1
		FLAMMABLE LIQUID - FUEL - DRUM	19
		WATER CONTAMINATED WITH HYDROCARBONS - DRUM	1
12-17-2021	NT23946-6	BATTERIES - LEAD ACID - EACH	12
		FLAMMABLE LIQUIDS - FUEL - DRUM	5
		WASTE LEACHATE - GLYCOL - DRUM	2
		WASTE LEACHATE - MIX -DRUM	3
		WASTE LEACHATE - OIL -DRUM	2
		NON-REG SOLIDS - OIL FILTERS - DRUM	2

CIRNAC's Response to Reply:

CIRNAC finds Sabina's response satisfactory. CIRNAC recommends that all hazardous waste shipped off site and listed in the annual report include a receipt or record of final disposition at the site licensed to receive such hazardous wastes or disposal.

4. Monitoring Program- Shallow Ground Water Monitoring

Comment:



In the 2021 Annual Report, mine construction activities reported were minimal in 2021, and consequently, very little monitoring data was collected or reported on in 2021. Future monitoring reports should include the baseline data in order to show the effects of mining activity (i.e., a 'before and after') comparison of water quality.

If shallow groundwater samples were collected from the active zone, this data should be presented along with other baseline data. This work is likely to require a summary of how shallow groundwater in the active zone and overburden-bedrock contact zone functions during periods of thaw

Reference:

2021 Annual Report for Water Licence 2AM-BRP1831, Pages 2-11 to 2-13 (Sabina, March 2022)

Recommendation:

(R-04) CIRNAC recommends that in the 2022 Annual Report and future annual reports, Sabina:

- Compile all available (current and historical) water quality data compared to applicable criteria in tabular format (Excel spreadsheet) to summarize pre-construction conditions.
- Identify which baseline stations correspond to the proposed effects monitoring stations shown in the most recent Water Management Plan.
- If no baseline data has been collected from relevant stations since 2015, provide an explanation as to why. If possible Sabina should take such steps as are necessary to resume sampling for the 2022 monitoring year.
- Include a discussion of how shallow flow zones in the active zone will be monitored for future impacts, specifically in zones directly adjacent to the active pits and the Waste Rock Storage Areas (WSRA).
- Include mapping of sandy seams or vertically and horizontally extensive sandy units, based on borehole lithology. If there are no shallow flow zones, present evidence from the borehole lithologies.

Sabina Gold and Silver Corp. Reply:

All historical water quality baseline data, including information on baseline station locations, that supported receipt of the Project Certificate (No. 007) and the Type A Water Licence (2AM-BRP1831) were provided as part of the FEIS submission and WL Application in Appendix V6 and V7Y, respectively. This baseline information was thoroughly reviewed by all parties during the prescribed process, and deemed sufficient to meet the required regulatory applications.

Sabina provided details associated with shallow groundwater on the Project during the Technical Comment phase of the Type A Water Licence process. In the Final Submission Responses (July 2018), CIRNAC stated that they were satisfied with Sabina's approach to monitoring shallow groundwater flow associated with the TSF (INAC-TRC-6).



As discussed in Sabina's response, CIRNA-WLA-IR-05, Project infrastructure such as open pits and Waste Rock Storage Areas (WRSAs) are located in a region with a continuous permafrost terrain. Seasonally, as a result of the presence of the active layer (i.e., the uppermost layer of ground that seasonally thaws), there is a shallow perched water table. Sabina has assumed that all WRSA surface contact water will require containment and therefore water management infrastructure has been designed to contain this water (Sabina 2022). Runoff containment from the WRSAs is captured in containment ponds; the dam faces of these containment ponds are lined, and keyed into the permafrost (i.e., below the active layer, typically 2 to 4 m in depth) to ensure a seal between the permafrost foundation and the water management structure. For zones adjacent to open pits, any potential flows associated with the shallow perched water table would be captured using sumps within the active pit and managed as contact water for the Project as outlined in the Water Management Plan.

There is therefore no opportunity for the perched shallow groundwater from the active layer to impact the environment beyond the existing containments systems. As a result, there is no requirement for additional shallow groundwater monitoring at this time. As part of final design of these water management structures, careful consideration will be given to the foundation stratigraphy, and the subsurface conditions will be documented as part of each of those pond designs. This final design will include characterization of frozen coarser grain sediments, as well as ice rich overburden material.

As part of regular Project operations, the WRSA diversion and containment structures will be monitored for seepage and runoff monthly, in addition to weekly during freshest (Waste Rock Management Plan, Section 7.1). Ground Temperature Cables (GTCs) will also be installed in WRSAs to monitor the rate of freeze back and permafrost development within the piles. All water containment dams will be inspected for erosion of, seepage through, or under the structures as a frequency of: (1) prior to freshet; (2) immediately after a major rain event; and (3) weekly for the remainder of the ice-free season. This monitoring is in addition to a seep survey conducted annually at all WRSAs each spring (Table 8.4-1 of Environmental Management and Protection Plan). Once collected, monitoring data will be reported to regulators in the Annual Water Licence Report (as per 2AM-BRP1831 Part B, Item 2); should monitoring identify that additional mitigation is required, Sabina will adaptively manage as appropriate to verify runoff from these areas is properly captured within the Project site water management system.

References:

Sabina (Sabina Gold & Silver Corp.). 2022. Back River Project Water and Load Balance. Submitted to the Nunavut Water Board. 30 August 2022

CIRNAC's Response to Reply:



CIRNAC recognizes the efforts and continuing work that Sabina has planned and looks forward to reviewing the required monitoring on site during the upcoming periods of construction and eventually production.

However, CIRNAC did recommend that Sabina provide the following information that is not included in the response;

- Compile all available (current and historical) water quality data compared to applicable criteria in tabular format (Excel spreadsheet) to summarize pre-construction conditions
- Identify which baseline stations correspond to the proposed effects monitoring stations shown in the most recent Water Management Plan.
- Include mapping of sandy seams or vertically and horizontally extensive sandy units, based on borehole lithology. If there are no shallow flow zones, present evidence from the borehole lithologies

Sabina did provide information on the following recommendations and CIRNAC is at this time satisfied with the responses to these issues at this time.

- If no baseline data has been collected from relevant stations since 2015, provide an explanation as to why. If possible Sabina should take such steps as are necessary to resume sampling for the 2022 monitoring year.
- Include a discussion of how shallow flow zones in the active zone will be monitored for future impacts, specifically in zones directly adjacent to the active pits and the Waste Rock Storage Areas (WSRA).

5. Monitoring Program – Reporting

Comment:

In the 2021 Annual Report, the field reading for pH is provided for the berm discharge water quality results; this pH reading is within the acceptable range of 6.0 – 9.5. The laboratory pH was reported to be 5.57 (i.e., outside of the acceptable range). The pH reported for the runoff water quality is the laboratory result (6.67), which is in the acceptable range and the field reading is not included.

Reference:

2021 Annual Report for Water Licence 2AM-BRP1831, Page 2-11 (Sabina, March 2022)

Recommendation:

(R-05) CIRNAC recommends that in the 2022 Annual Report and future annual reports, Sabina provide both the field readings and laboratory pH results in the water quality results tables (similar to the 2020 Annual Report).



Sabina Gold and Silver Corp. Reply:

Sabina will include laboratory pH results, as well as any collected field pH results, in future annual reports.

CIRNAC's Response to Reply:

CIRNAC is satisfied by Sabina's commitment and looks forward to the 2022 annual report for review.

6. Monitoring Program – General Monitoring

Comment:

In the 2021 Annual Report, Sabina states that aquatic effects monitoring has not yet commenced at the Back River Project. Sabina's 2017 Environmental Management and Protection Plan commits to general monitoring, which is defined as covering "*all types of monitoring*". In the 2021 Annual Report, Sabina does not report on general monitoring conducted in 2021.

Reference:

- 2021 Annual Report for Water Licence 2AM-BRP1831, Page 2-12 (Sabina, March 2022)
- Back River Project Aquatic Effects Management Plan (Sabina, October 2017)
- Back River Project Environmental Management and Protection Plan (Sabina, October 2017)

Recommendation:

(R-06) CIRNAC recommends that Sabina:

- Clarify whether any general monitoring was conducted in 2021.
 - If general monitoring was not conducted, provide a rationale, if general monitoring was conducted, provide the results to the NWB.
- Provide the results of general monitoring in future annual reports.

Sabina Gold and Silver Corp. Reply:

Sabina's Environmental Management and Protection Plan defines general monitoring as that commonly included in a Water Licence as well as other monitoring carried out using established protocols, and may include quality assurance/quality control provisions, and addresses identified issues. General monitoring activities applicable to the Licence undertaken in 2021 are reported in the Annual Report and a summary of licence monitoring activity, or reason for not having monitored, was provided in Appendix C of the report. As explained in the annual report as well as response to CIRNA-01 above, where monitoring activities related to exploration infrastructure (e.g., Goose camp water use, discharge from the goose exploration fuel tank berm) relevant data was provided in the 2BE-GOO2028 Annual Report. Water quality sampling procedures are outlined in Sabina's



approved Quality Assurance/Quality Control Plan, which is available on the NWB public registry.

With the initiation of Construction Details on all Aquatic Effects Management Plan (AEMP) sampling conducted, methodologies and results will be provided in the AEMP report when submitted.

CIRNAC's Response to Reply:

CIRNAC acknowledges Sabina's response. CIRNAC looks forward to the 2022 annual report and will look specifically for information related to the general monitoring conducted, the results that were provided to the NWB as well as what general monitoring was not conducted and the provided rationale for not undertaking that work.

7. Updating of Plans, Manuals and Reports

Comment:

Sabina stated in the 2021 Annual Report to the NIRB that "*Sabina recently reviewed the plan [referring to the 2017 Landfill Waste Management Plan] and determined that an update would be beneficial to address current practices at the Back River Project. Once completed, the updated LWMP will be submitted to the NWB for approval and will then be submitted to the NIRB.*"

There is no mention of these proposed updates to the Landfill Waste Management Plan, including any indication of an anticipated submission timeline, in the 2021 Annual Report for Water Licence 2AM-BRP1831.

Reference:

2021 Annual Report for Water Licence 2AM-BRP1831, Page 2-13 (Sabina, March 2022)

Recommendation:

(R-07) CIRNAC recommends that Sabina provide a timeline for the anticipated submission of the updated Landfill and Waste Management Plan to the NWB.

Sabina Gold and Silver Corp. Reply:

The updated Landfill and Waste Management Plan was submitted to the NWB on 1 September 2022.

CIRNAC's Response to Reply:

CIRNAC acknowledges receipt of the Plan distributed by the NWB in September and has provided response and recommendations back to the Board.



8. Tailings Management Plan

Comment:

Table 8-1 in the Tailings Management Plan (TMP) states that “...*additional capacity is available in the open pits to accommodate greater volumes of tailings*”.

It is not clear how much additional volume is available or whether a greater than expected volume of tailings will negatively impact the 5 m of water cover required to prevent the resuspension of solids.

It is noted that the tailings volumes for the Echo and Umwelt Tailings Facilities are near or above the depth-area-capacity curves of the pits as outlined in the 2021 Updated Feasibility Study.

Reference:

- Back River Project Tailings Management Plan, Pages 5-1 to 5-3 and 8-1 (Sabina, April 2022)
- Updated Feasibility Study for the Goose Project, Pages 20-19 to 20-20 (Sabina, March 2021)

Recommendation:

(R-08) CIRNAC recommends that Sabina provide the volumes or depth-area-capacity curves of the mined-out open pits in future TMPs.

Sabina Gold and Silver Corp. Reply:

Sabina acknowledges CIRNAC's request and will consider providing the mined-out open pit volumes or depth-area-capacity curves in future iterations of the Tailings Management Plan.

CIRNAC's Response to Reply:

CIRNAC is satisfied with the commitment by Sabina to review this specific recommendation as they move forward and provide depth-area-capacity curves of the mined-out open pits in future Annual Reports.

9. Updated Waste Rock Management Plans – Locations

Comment:

The location of the Echo/Goose Waste Rock Storage Area is unclear. On page 5-1 of the Waste Rock Management Plan, it is listed as being “*Located in directly adjacent to the Echo open pit mine*”, while on Page 5-7 the location is stated to be “...*on top of the mined-out Echo Pit once it is no longer in use*”.



Reference:

Back River Project Waste Rock Management Plan, Pages 5-1, 5-7 (Sabina, April 2022)

Recommendation:

(R-09) CIRNAC recommends that Sabina provide clarification on the location of the Echo/Goose WRSA in future Annual Report

Sabina Gold and Silver Corp. Reply:

Sabina acknowledges CIRNAC's request and will provide clarification on the location of the Echo/Goose WRSA in future Annual Reports submitted to the Nunavut Water Board.

CIRNAC's Response to Reply:

CIRNAC is satisfied with Sabina's commitment to meet this reporting objective in Future Annual reports.

10. Updated Waste Rock Management Plans -PAG Vs Non-PAG

Comment:

Table 5.3-2 outlines the quantities and proportions of PAG and NPAG waste rock within each pit. The Echo open pit is not listed. Has the waste rock from the Echo Deposit been tested and classified for ARD potential? Is the distribution expected to be similar to the Goose open pit?

Densities for the NPAG vs PAG waste rock are not given. What is the PAG to NPAG distribution by volume?

Reference:

Back River Project Waste Rock Management Plan, Page 5-5 (Sabina, April 2022)

Recommendation:

(R-10) CIRNAC recommends that Sabina:

- Provide NPAG and PAG distributions for the Echo open pit.
- Provide densities or PAG to NPAG distributions by volume for each deposit.

Sabina Gold and Silver Corp. Reply:

Sabina confirms that the waste rock from the Echo Deposit has been tested and classified for acid rock drainage (ARD) potential. This geochemical analysis was detailed, and extensively reviewed, in the Type A Water Licence Application submitted to the Nunavut Water Board in Appendix E-3 (Sabina 2017). As discussed in Section 5.2 of this appendix,



PAG and NPAG distribution for the Echo deposit was approximately 45% PAG and 55% NPAG by volume.

Sabina will include update the PAG and NPAG distribution for the Echo open pit in the next iteration of the Waste Rock Management Plan (WRMP) as directed by the Nunavut Water Board.

References:

Sabina (Sabina Gold & Silver Corp.). 2017. Revised Type A Water Licence Application for Sabina Gold & Silver Corp. Back River Project. Submitted to the Nunavut Water Board. 4 October 2017.

CIRNAC's Response to Reply:

CIRNAC is satisfied that the work Sabina has undertaken in determining the NPAG and PAG distributions for the Echo open pit have been completed and provided and their commitment to provided updates to this calculation in future Annual reports. Sabina however has not provided those same calculations for the remaining deposits as requested.

CIRNAC looks forward to Sabina providing that information as it becomes available and included in the 2022 Annual report.

11. Updated Waste Rock Management Plans – Volumes

Comment:

The Waste Rock Management Plan (WRMP) gives the expected areas and heights of each Waste Rock Storage Area (WRSA) but does not include the stockpile volumes.

Once waste rock starts being produced, as-built WRSA volumes are required to be submitted. Including the expected volumes for each WRSA would be beneficial for comparative purposes.

Reference:

Back River Project Waste Rock Management Plan, Page 5-6 (Sabina, April 2022)

Recommendation:

(R-11) CIRNAC recommends that Sabina provide volumes for each WRSA in the future WRMPs.

Sabina Gold and Silver Corp. Reply:

As stated in the 2021 Annual Report there was no waste rock deposited in WRSAs in 2021. Sabina will report volumes of waste rock deposited in Waste Rock Storage Areas



(WRSAs) as required by Part I, Item 9b of the Licence. On next update on the WRMP, Sabina will consider inclusion of expected total WRSA volumes.

CIRNAC's Response to Reply:

CIRNAC thanks Sabina for their willingness to consider including this information in the next WRMP. CIRNAC recommends that this information, as it becomes available and more refined in its estimates is also updated annually in the annual reports so that the most up to date information is available to all parties.

12. Updated Water Management Plan

Comment:

Sabina provided an updated Water Management Plan in April 2022. The updated Water Management Plan provides a figure showing the proposed general water quality monitoring stations and refers to the following documents for details on the General and Aquatic Effects Monitoring Program: Environmental Management and Protection Plan (EMPP), Aquatic Effects Management Plan (AEMP), and the Quality Assurance/Quality Control Plan (QA/QCP).

The EMPP refers to Appendix B of the Water Management Plan for a summary of water quality monitoring for the project. The previous (October 2020) Water Management Plan included an overview of the water quality monitoring with the locations, types of monitoring, and frequency of monitoring. This information has not been updated or included in the April 2022 updated Water Management Plan submitted by Sabina. The October 2017 AEMP provides details on water quality monitoring at only a subset of the monitoring stations that are shown in the Water Management Plan. The QA/QCP does not provide details on locations, frequency or type of monitoring.

If the 2022 updated Water Management Plan replaces the 2020 version, details on the complete water quality monitoring program will be missing.

Reference:

- 2022 Back River Project Water Management Plan (Sabina, April 2022)
- Back River Project Water Management Plan, Appendix B (Sabina, October 2020)
- Back River Project Aquatic Effects Management Plan (Sabina, October 2017)
- Back River Project Environmental Management and Protection Plan (Sabina, October 2017)
- Back River Project Quality Assurance / Quality Control Plan (Sabina, October 2017)

Recommendation:



(R-12) CIRNAC recommends that Sabina provide details on the complete water quality monitoring program, updated as appropriate, in the updated Water Management Plan.

Sabina Gold and Silver Corp. Reply:

Sabina notes that monitoring requirements are stipulated in the Type A Water Licence (2AM-BRP1831), Schedule I. Sabina recommends that this information is unnecessary in the Water Management Plan to reduce duplication, maintain consistency, and avoid potential confusion. Sabina confirms that the Water Management Plan (WMP) points to

CIRNAC's Response to Reply

CIRNAC has reviewed Sabina's response but remains concerned that not all aspects of the Water Quality monitoring program are being reported strictly under the Schedule I of the Type A Water Licence in Section 10.

CIRNAC recommends that Sabina provide details on the complete water quality monitoring program in the Water Management Plan.