BACK RIVER GOLD MINE PROJECT
WRMP & WMP:
COMMENT RESPONSES #2

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SIGNATURE PAGE

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WRMP & WMP COMMENT RESPONSES #2



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1. CIRNAC

B2Gold Back River Corp (B2Gold Nunavut) acknowledges comments from Crown Indigenous Relations and Northern Affairs Canada (CIRNAC)/Relations Couronne-Autochtones et Affaires du Nord Canada (RCAANC) and has provided the requested information in the following sections.

1.1 CIRNAC #1 WASTE ROCK QUANTITIES AND STORAGE CAPACITY

CIRNAC Comment

Tables 1 to 3 of B2Gold's response allowed CIRNAC to compare the site wide waste rock predicted volumes and capacity and helped us understand the changes in predicted PAG/NPAG material ratio. According to Table 3, the Umwelt open pit PAG/NPAG ratio prediction changed slightly between 2022 and 2026, from 52%-to-48% to 47%-to-53%. However, most of the material mined at Umwelt to date has been PAG and the reported ratio is 97%-to-3%. Since the long term strategy for waste rock storage is encapsulating PAG waste rock with NPAG waste rock, the relative quantities of each are important for executing proposed plans.

Recommendation (R-01): CIRNAC recommends that B2Gold explain why the PAG/NPAG ratio of the material mined to date from the Umwelt pit differs significantly from predictions and discuss how these volumetric changes are to be accounted for in the waste rock storage plans.

B2Gold Nunavut Response

Table 1 summarises predicted waste rock volumes and waste rock storage area (WRSA) capacities but does not include non-potentially acid generating (NPAG) materials that has been used for construction to date. The reported 97% potentially acid generating (PAG) to 3% NPAG ratio for material stored from Umwelt reflects the current disposition of mined material up to February 2026, rather than a change in the overall predicted PAG/NPAG ratio for the Umwelt open pit.

To date, most NPAG material mined from Umwelt has been preferentially used for construction, while PAG material has been directed to the WRSA. The ratio within the Umwelt WRSA has since changed to 93% PAG and 7% NPAG through to the end of August 2026. As mining continues and construction demand for NPAG material decreases, more NPAG material is expected to be placed in the WRSA and available for cover construction. The Umwelt open pit PAG/NPAG prediction has changed only slightly between 2022 and 2026, from 52% PAG/48% NPAG to 47% PAG/53% NPAG. The current WRSA capacity assessment account for this material balance, including segregation/classification inefficiencies, and indicates that the Umwelt WSRA has sufficient NPAG cover and storage capacity, as summarized in Table 1.

Table 1 Predicted Waste Rock Volumes and Waste Rock Storage Areas Capacities

NAG/PAG Balance	WASTE Expit Mined		WRSA Capacity/Requirement		+Surplus/ -Deficit
Pit	PAG (LCM)	NPAG (LCM)	PAG (LCM)	NPAG Cover (LCM)	NPAG (LCM)
Umwelt (Mt)	4,435,382	7,910,444	10,207,241	3,207,589	4,702,856

1.2 CIRNAC #2 UPDATING SEGREGATION CRITERIA FOR PAG ROCK

CIRNAC Comment

B2Gold responded they would present an updated potentially acid generating / non-potentially acid generating (PAG/NPAG) segregation criteria for waste rock for the Llama deposit, based on data presented in attachment C of the modification in the next iteration of the Waste Rock Management Plan. The prevention of acid rock drainage and potential impacts to water quality relies on accurately distinguishing PAG and NPAG.

Recommendation: (R-02) CIRNAC recommends that B2Gold: B2Gold provide their proposed updated PAG/NPAG segregation criteria for the Llama deposit at this time so that it can be discussed and agreed on prior to initiating mining at Llama pit, planned for Q4 of this year.

B2Gold Nunavut Response

B2Gold Nunavut provides the proposed potentially acid generating/non-potentially acid generating (PAG/NPAG) segregation criteria for the Llama deposit below.

B2Gold Nunavut is completing additional geochemical characterization of the Llama deposit to further evaluate the PAG/NPAG segregation criteria. During the summer 2026, 638 additional samples were collected from Llama deposit exploration drilling for neutralization potential (NP) and acid potential (AP) analysis, and kinetic testing is being initiated to support the criteria evaluation. B2Gold Nunavut proposes to apply the currently approved criteria shown in Table 2 while these investigations are completed. The investigations are assessing whether a lower NP/AP threshold may be appropriate. If the additional results support refinement of the Llama segregation criterion, B2Gold Nunavut will submit the revised criterion for the review and approval through an updated Metal Leaching/Acid Rock Drainage (ML/ARD) Management Plan before implementation for operational segregation.

B2Gold Nunavut acknowledges that Table 5.3-2 of the updated Metal Leaching/Acid Rock Drainage (ML/ARD) Management Plan contained an error. The PAG criterion should state that material is classified as PAG where the neutralization potential ratio (NP/AP) is less than 3 and total sulphur is greater than 0.15%. Material classified as NPAG where NP/AP is greater than or equal to 3 or total sulphur is less than or equal to 0.15%.

Table 2 Site Specific Geochemical Classification Criteria for the Echo and Llama Deposits

Acid Generation Potential	Criteria
Non-potentially acid generating	NP/AP >= 3 or total S <= 0.15%
Potentially acid generating	NP/AP < 3 and total S > 0.15%

Notes: NP = neutralization potential; AP = acid potential; S = sulphur.

1.3 CIRNAC #7 SALINE WATER MANAGEMENT

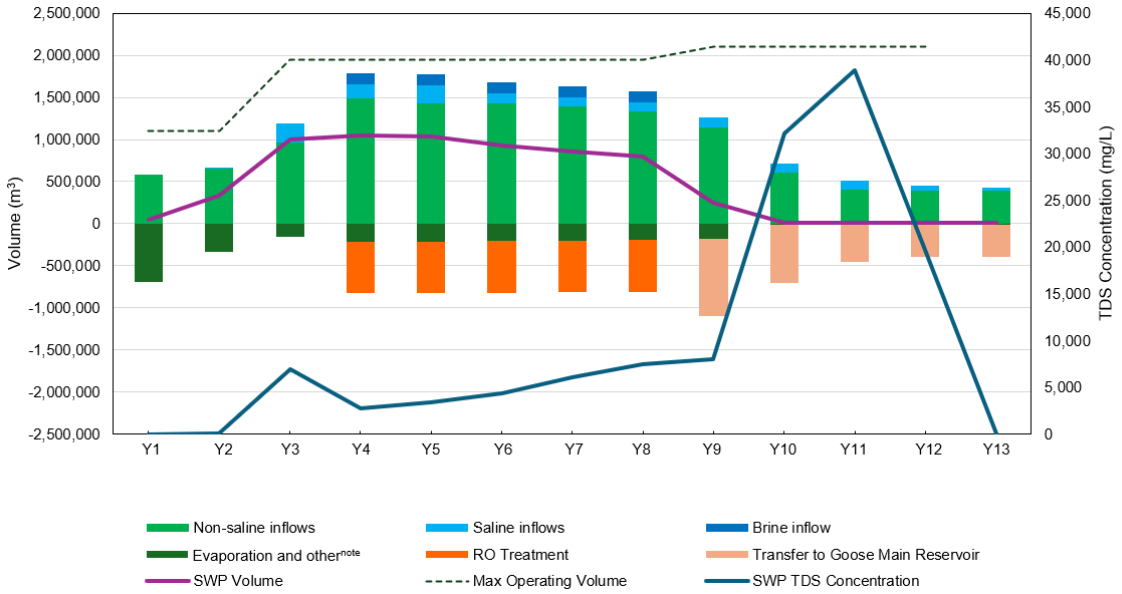
CIRNAC Comment

Figure 1 presents inflow and outflow volumes to the Saline Water Pond (SWP) and the text explains "during operations, most of the water stored in the pond is derived from non-saline sources (runoff, snowmelt, and direct precipitation)." Though the phased construction of the SWP dam will retain more water than the original Umwelt lake volume, it is not clear why the volume of nonsaline inflows to the SWP approximately triples between years 1 and 4 since they are comprised of runoff, snowmelt and precipitation and would contribute to lake inflows regardless of the dam. The flow diagrams in appendix B of the Water and Load Balance indicate no fresh/non-contact or contact water will be directed to the SWP. Thorough accounting in the management of saline water is critical to protect freshwater resources.

Recommendation: (R-07) CIRNAC recommends that B2Gold explain the reason non-saline water inputs to the SWP increase significantly over the first four years of operations.

B2Gold Nunavut Response

The non-saline inflows to the SWP comprise of direct precipitation over the SWP and runoff from the undisturbed ground surrounding the SWP. The total catchment area reporting to the SWP remains constant throughout the life of mine. However, the proportion between the area occupied by the SWP pond surface and the area of the undisturbed ground changes over time, based on the estimated volume of water stored in the SWP. The SWP pond area has a higher runoff coefficient (assumes no loss) than the natural ground around the SWP. The volume of water stored in SWP increases in the first years of mine operation resulting in an increase of the runoff coefficient for the overall catchment of the SWP, and consequently an increase in non-saline inflows. Later in the life of mine, the non-saline inflows decrease as the volume of water stored in SWP decreases. This is shown in Figure 1 (re-appended from response to previous comment CIRNAC-#7) with the "Non-saline Inflows" bars that increase and decrease together with the "SWP Volume" line.



Note: Include Umwelt Lake dewatering during Y1 and Y2.

Figure 1 Inflow and outflow volumes to the Saline Water Pond (SWP) and annual average TDS concentrations in SWP

1.4 CIRNAC #9 PREDICTED GROUNDWATER INFLOWS

CIRNAC Comment

- Predicted groundwater inflows have been updated in the Water Load and Balance Report. Two scenarios with different hydraulic conductivity profiles were used to calculate groundwater inflows in the 2022 report which resulted in lower (scenario #1) and higher (scenario #2) flows. For the 2026 report, groundwater inflows were scaled to account for changes in mine plan, but the groundwater model was not recalculated. While the 2022 report and associated Water Management Plan used scenario #2 groundwater inflows as input to water load calculations on site, the 2026 report. The latter plan states "*A sensitivity analysis of the Water and Load Balance Model was completed considering Scenario 2 groundwater inflows. The model sensitivity results showed that the proposed saline water management strategy would remain suitable for the Project*." CIRNAC was unable to find this sensitivity analysis.

  Model updates are essential to adapting mine management, but insufficient new data has been presented to justify working with the lower groundwater inflow scenario. Once the underground mines are developed and there is inflow data, the groundwater flow model can be updated and it might be possible to use less conservative assumptions. Since the Water. Management Plan doesn't account for any saline water disposal until Year 9 of the mine plan, sufficient capacity to store saline groundwater flows is critical.

- Recommendation: (R-09) CIRNAC recommends that B2Gold update the Water and Load Balance Report and the Water Management Plan to use model scenario #2 groundwater inflows.

B2Gold Nunavut Response

In response to the recommendation above, B2Gold is providing additional information related to a water and load balance sensitivity analysis to saline groundwater inflows in the form of a technical memorandum appended to this response report entitled ‘‘Appendix CIRNAC #9 -Predicted Groundwater Inflows’’.

2. ECCC

B2Gold Nunavut acknowledges comments from Environment and Climate Change Canada (ECCC) and has provided the requested information in the following sections.

2.1 ECCC #1 WASTE MANAGEMENT AND MONITORING

ECCC Comment #1
The Proponent has generally responded to the comment and has provided a figure, but the response still doesn't include flow directions to understand the movement of water on site.

Recommendation: (R-1) ECCC recommends
ECCC recommends that flow directions for water management around the waste piles be included in a future update to the Water Management Plan.

B2Gold Nunavut Response
B2Gold Nunavut will include flow direction arrows for all the waste piles in a future update of the Water Management Plan (e.g., similar to the arrows for the area of the temporary waste piles and the Umwelt Overflow pile included in the figure appended to original ECCC#1 comment).

2.2 ECCC #2 SCALING OF GROUNDWATER PREDICTIONS

ECCC Comment
ECCC appreciates the additional context. However, it is not clear how the new inflow rates and concentrations for the changes to the underground developments were determined.

Recommendation: ECCC recommends the Proponent provide calculations used to scale the groundwater quantity and quality to increase clarity and understanding for all parties.

B2Gold Nunavut Response
For each year of the current Mine Plan, the lowest elevation of each pit and underground development expected to generate saline water inflows (i.e. Llama Pit, Llama Underground, Umwelt Underground, Goose Main Underground and Echo Underground) was compared with the lowest elevations evaluated by WSP Golder (2022). Where the current mine elevation fell between two WSP Golder elevations, the groundwater inflow rate and TDS concentration were calculated by linear interpolation:

$$X_E = X_1 + \left(\frac{E-E_1}{E_2-E_1}\right)(X_2 - X_1) \qquad \text{Eq. 1}$$

where:

- X_E is the calculated groundwater inflow rate or TDS concentration at the current mine elevation;
- E is the current mine elevation;
- E_1 and E_2 are the bounding elevations from WSP Golder (2022); and
- X_1 and X_2 are the corresponding WSP Golder groundwater inflow rates or TDS concentrations.

Accordingly, the term "scaled" refers primarily to interpolation of the WSP Golder groundwater predictions as a function of mine elevation. The calculations were completed separately for groundwater Scenario 1 and Scenario 2 because each scenario has different relationships between elevation, groundwater inflow, and TDS concentration. Where the current development extended beyond the elevation range evaluated for that development in WSP Golder (2022), predictions from the most comparable WSP Golder development were used, as described below (example only).

Example calculations: Llama Underground (Scenario 1)

The Llama Underground has a minimum elevation of -360 m in the 2026 Mine Plan, below the minimum elevation of -80 m from the 2022 Mine Plan evaluated by WSP Golder (2022). Therefore, the groundwater inflow and TDS values were calculated using the WSP Golder prediction for Umwelt Underground, which extends to a minimum elevation of -495 m (Table 3).

Table 3 Umwelt Underground 2022 Mine Plan Groundwater Predictions (WSP Golder, 2022)

Mine Year	Depth	Flows (m^3/d)	TDS (mg/L)
1	215	0	0
2	5	70	25,600
3	-145	160	39,700
4	-385	170	55,200
5	-495	140	63,100
6	-495	130	68,400
7	-495	130	71,900
8	-495	130	75,100
9	-495	120	79,500
10	-495	120	79,000
11	-495	120	82,600
12	-495	120	89,400
13	-495	110	93,100
14	-495	110	96,600
15	-495	110	99,800

Taking Year 8 as an example, the current Mine Plan places Llama Underground at an elevation of -260 m. Using Eq. 1:

- E = - 260 m
- E_1 = -145 m, and X_1 = 160 m³/day and TDS = 39,700 mg/L; and
- E_2 = -385 m, and X_2 = 170 m³/day and TDS = 55,200 mg/L.

The interpolated groundwater inflow at -260 m is:

$$Q_{-260} = 160 + \left[\frac{-260-(-145)}{-385-(-145)}\right](170-160) = 165 \text{ m}^3/\text{day}$$

The interpolated TDS concentration is:

$$TDS_{-150} = 39{,}700 + \left[\frac{-260-(-145)}{-385-(-145)}\right](55{,}200-39{,}700) = 47{,}127 \text{ mg/L}$$

Interpolated flow rates were rounded to the nearest 10 m³/day and TDS concentrations to the nearest 100 mg/L, resulting in adopted values of 170 m³/day and 47,100 mg/L.

Additional assumptions and methods to the calculation approach applied to each underground development is summarised as follows:

- **Llama Underground:** The minimum mining elevation of −360 m is maintained from Year 9 to Year 12. Because WSP Golder (2022) predicts decreasing groundwater inflows for Umwelt Underground after it reaches its maximum depth, the same year-to-year change in inflow was applied to Llama Underground while it remained at its minimum elevation.

- **Umwelt Underground:** Groundwater inflow rates and TDS concentrations were interpolated to the annual mining elevations in the current Mine Plan through Year 8, when the development reaches its maximum depth of approximately 10 m below the minimum elevation evaluated by WSP Golder (2022). From Year 8 to Year 12, while the maximum mining depth remains unchanged, the groundwater inflow and TDS concentration trends predicted by WSP Golder (2022) after attainment of the minimum elevation were applied.

- **Goose Main Underground:** Groundwater inflow rates and TDS concentrations were interpolated to the annual mining elevations in the current Mine Plan for elevations above -100 m. Below this elevation, no additional groundwater predictions were available from WSP Golder (2022) for Goose Main Underground. Therefore, the groundwater inflow rates and TDS concentrations associated with the -100 m elevation were carried forward, consistent with the WSP Golder predictions for Years 9 to 13 when Goose Main Underground remains at its deepest evaluated elevation.

- **Echo Underground:** The current Echo Underground mining elevations fall within the range evaluated by WSP Golder (2022). As groundwater inflow rates were predicted to remain below 50 m³/day throughout the mine life, the same constant inflow rate was retained for the updated Mine Plan. For groundwater quality, the maximum predicted TDS concentration was adopted for all years of Echo Underground development.

- **Llama Open Pit:** The mining elevations in the 2026 Mine Plan are generally similar to those evaluated by WSP Golder (2022), with an initial mining elevation approximately 20 m higher and

a final pit elevation approximately 25 m higher than the 2022 Mine Plan. WSP Golder (2022) predicted groundwater inflows of less than 50 m³/day and TDS concentrations of less than 10,000 mg/L for Llama Open Pit. Accordingly, these values were retained for Scenario 1 in the 2026 Mine Plan. For Scenario 2, the values from WSP Golder (2022) Scenario 2b were adopted, resulting in an increased inflow rate of 75 m³/day during Year 2, the first year of pit development. This approach was selected because Llama Open Pit is developed within the footprint of Llama Lake, which is associated with taliks, and Scenario 2b specifically evaluated the sensitivity of groundwater inflows to enhanced near-surface bedrock storage conditions within the pit area.

WSP Golder (2022) identified that groundwater inflows to the Llama Pit are influenced by underdrainage to the Llama Underground. The Mine Plan used in WSP Golder (2022) considered Llama Pit and Llama Underground starting at the same time. Therefore, the groundwater predictions for Llama Pit in WSP Golder (2022) accounted for the effect of the underdrainage by Llama Underground for the entire duration of mining of Llama Pit. The current Mine Plan considers Llama Underground starting 2 years after Llama Pit. It is acknowledged that the use of the WSP Golder (2022) may underestimate inflows to Llama Pit during the first two years of mining of Llama Pit (i.e. prior to development of Llama Underground). It is not expected that this underestimation will have a significant impact on the overall management of saline water at Goose Mine.

The limitations of the scaling approach described above are acknowledged but are considered part of the uncertainties of the groundwater inflow predictions until mine developments intersect the groundwater system and site-specific inflow data become available. Measured groundwater inflows will be used to calibrate the groundwater model and refine predictions of future groundwater inflows when they become available.

2.3 ECCC #4 OVERBURDEN STORAGE AREAS

ECCC Comment
The response from the Proponent references the future WMP in response to part 2 of ECCC's recommendation, but the response has not addressed parts 1, 3, and 4. The response from B2Gold does not provide specific information on water management for the overburden stockpiles or why they have excluded this from the Water Balance.

Recommendation: ECCC recommends that the Proponent:

1. Describe how runoff and seepage from the overburden stockpiles will be collected, monitored, and managed, including whether existing water management infrastructure will be utilized or whether additional infrastructure is required.

2. Explain why the overburden stockpiles were excluded from the Water and Load Balance

3. Provide an assessment of the contribution of the overburden stockpiles to the overall site water balance, including expected runoff volumes, potential seepage generation, and any associated constituent loading.

B2Gold Nunavut Response
B2Gold Nunavut acknowledges ECCC's comment and is providing the response below:

1. The comprehensive baseline geochemistry program conducted between 2007 and 2015 to support the Final Environmental Impact Statement (Sabina 2015; Appendix V2-7D) and the Type A Water Licence (Sabina 2017; Appendix E-3) and the additional testing completed in 2025 indicate that overburden material for the Project has a negligible potential for metal leaching/acid rock drainage (ML/ARD) and is classified as non-potentially acid generating (NPAG). Depending on the physical and geochemical characteristics of the overburden, it may be incorporated into the WRSAs, used for specific construction purposes, or used as WRSA cover material, as stated in Section 5.1 of the Waste Rock Management Plan (B2Gold, 2026b). Only overburden material that is non-ML/ARD will be placed in the overburden stockpiles. Runoff and seepage from the overburden stockpiles will report to the toe of these stockpiles where it is expected to temporary accumulate in ‘‘natural depressions’’. These depressions will provide retention time for settlement of total suspended solids and will be used by B2Gold for water quality sampling and testing. If water quality is found to be unsuitable for discharge to the environment, adaptive management measures will be implemented that may include:

    a. temporary pumping from these depressions to the Primary Pond or other ponds;
    b. construction of berms or ditches along the toe of the overburden stockpiles to intercept runoff and seepage and direct it towards the ‘‘natural depression’’; or
    c. additional measures for general runoff as described in the Water Management Plan.

2. The overburden stockpiles were not included in the Water and Load Balance as runoff and seepage from these stockpiles is expected to be suitable for discharge to the environment and therefore will not be part of the water inventory to be stored/managed in water management ponds.

3. As part of a future update of the Water Management Plan, B2Gold will develop a sensitivity scenario for the Water and Load Balance to show how seepage and runoff from the overburden stockpiles could be managed within the water management ponds in the event that this water is found to not be suitable for discharge to the environment. This sensitivity scenario will also include an estimation of potential constituent loading in seepage and runoff from the overburden stockpiles.

2.4 ECCC #5 CHANGES TO INFLOW RATES AND TREATMENT VOLUMES

ECCC Comment

The response from the Proponent has addressed part 2 of ECCC’s recommendation, but the response has not addressed part 1. In the initial application it is unclear how the proposed changes will impact overall water management and water quality. The response from the Proponent that “analysis is ongoing” suggests that the full description of how the modification will impact water management and water quality has not yet been presented.

Recommendation: ECCC recommends the Proponent provide a consolidated summary of the implications of the proposed Mine Plan modifications on water quantity and quality, including changes to flow rates, runoff and seepage volumes, water storage requirements, treatment volumes, and contaminant loadings. The

summary should clearly identify the contribution of each modification and demonstrate how these changes have been incorporated into the water balance, water quality predictions, and water management planning.

B2Gold Nunavut Response

The Water and Load Balance report (BGC, 2026) appended to the Water Management report (B2Gold, 2026b) represents an update to the Water and Load Balance model described in WSP Golder (2022). The response presented herein is based on the changes between the Mine Plan and layout in these two model versions. For clarity, the results from the Water and Load Balance models associated with these versions are referred to herein as the 2026 Mine Plan and 2022 Mine Plan models, respectively.

A series of changes has occurred to the Goose Mine Plan and layout since WSP Golder (2022). Each of these changes affects differently the quantities and qualities of the contact water (process water is embedded in the contact water for the purpose of this response) and the saline water that need to be managed at the Goose Mine, as well as the available storage of contact water and saline water at site.

The response presented herein is focused on providing:

1) a qualitative description of the impact of each main change of the Mine Plan and layout to the site water management;
2) a comparison of the overall annual quantity of contact and saline water to be managed at site between the 2026 Mine Plan and 2022 Mine Plan models;
3) a confirmation that the current water management strategy provides sufficient storage for the contact and saline water being generated at the Goose Mine site based on the 2026 Mine Plan; and
4) a comparison of the predicted total loadings generated by the waste rock storage areas (WRSAs) between the 2026 Mine Plan and 2022 Mine Plan models

Qualitative description of the changes

The following main changes have occurred to the Goose Mine Plan and layout since the 2022 Mine Plan model (WSP Golder, 2022) that affect the quantity and quality of contact and saline water at the Goose Mine site.

1) An overall increase in the dimension of the WRSAs (including the new storage areas introduced as part of the 2026 mine), resulting in an increase in contact water being generated from the waste rock storage areas. The WRSAs have increase by 29% (Table 4).
2) A 19% increase in the size of the open pits resulting in additional capacity for storage of contact water (Table 5).
3) Reduction in the Primary Pond design volume (74% reduction), resulting in a reduction in contact water storage on site.
4) Removal of the non-contact water diversion berm around the Saline Water Pond resulting in increase of non-saline water reporting to the SWP.
5) Reduction in freshwater demand from Goose Lake for ore processing (30% reduction).
6) Change in the schedule of development of the pit and underground mines, affecting the timing of generation of contact water and saline water from the various mine facilities and the annual total water storage available.

7) The 2022 Mine Plan model included the predictions of contact water during the construction phase of the project, while the 2026 Mine Plan model is based on actual conditions that occurred during the construction phase, including volumes in the site storage facilities at the time of beginning of Operations. The actual construction phase resulted in less water in the contact water storage ponds than predicted by the 2022 Mine Plan model.
8) Both the 2022 and the 2026 Mine Plan models include transfer of contact water to the saline water storage facilities. However, these transfers occur at different times in the life of mine and in different amount depending on different contact water management requirements in the two models.
9) Source terms have been updated based on the updated NPAG/PAG ratio, affecting the predicted loadings generated by the various mine facilities. Also, the proportion of volume of different lithologies that will be extracted and ultimately be placed in the waste rock storage areas were updated.

Table 4 WRSA footprint (full development) of the 2022 and 2026 Mine Plan

Facility	Surface Area (ha)	
	2022 Mine Plan	2026 Mine Plan
Echo/Goose Main WRSA	69	62
Llama WRSA	39	59
Umwelt WRSA	33	38
Umwelt Overflow WRSA	N/A	16
Temporary UG PAG Stockpile	N/A	3
Temporary NPAG Stockpile	N/A	4
Total	141	182

Note: N/A = Not applicable; new area introduced in 2026 Mine Plan

Table 5 Ultimate pit volumes (full development) of the 2022 and 2026 Mine Plan

Facility	Storage Volume (Million m^3)	
	2022 Mine Plan	2026 Mine Plan
Echo Pit	2.5	2.9
Umwelt Pit	5.8	11.5
Llama Pit	11.3	11.4
Goose Main Pit	17.3	18.2
Total	36.9	44.0

Comparison of annual quantity of water to be managed

Table 6 compares the predicted annual contact water volumes requiring management during the Operations phase with the available contact water storage capacity in the 2022 and 2026 Mine Plan models. To enable a direct comparison, both models used the same continuous average climate conditions. Stored contact water includes water requiring management within contact water ponds and tailings facilities, such as captured runoff, process water, freshwater supplied to the mill and ore water. The contact water capacity in Table 6 represents the annual available storage capacity at site.

The comparison (Table 6) confirms that sufficient storage capacity is available throughout Operations. Storage capacity generally increases as mining advances and exhausted pits become available for tailings deposition and water storage, while capacity within the tailings facilities gradually decreases as deposited tailings occupy available volume. Predicted stored contact water volumes increase over the Operations period in both model versions, except during Years 12 and 13 of the 2022 Mine Plan model, when contact water is transferred from the Umwelt and Llama tailings facilities to saline water storage (Table 7) to maintain tailings deposition capacity. This strategy is not applicable in the 2026 Mine Plan model as sufficient tailings and contact water storage capacity is available. In the 2026 Mine plan model some contact water is transferred from Echo TF to Saline Water Pond (SWP), reducing the annual increase in stored contact water in the early years of Operations. Because the closure strategy includes refilling the Umwelt and Llama tailings facilities, stored contact water volumes approach the available capacity by the end of Operations.

The 2026 Mine Plan shows that the mine would generally have larger storage capacity for contact water, mostly due to the larger size of the pits, particularly Umwelt Pit. However, in the 2026 Mine Plan this storage capacity becomes available later in the mine life compared to the 2022 Mine Plan, because of the later completion of Umwelt Pit (completed in year 2 in the 2022 Mine Plan versus year 4 in the 2026 Mine Plan). This, in combination with the reduction in size of the Primary Pond, results in a reduction in available storage capacity during the early years of Operations (year 1 to Year 3). However, the modelled stored contact water volume during these early years of Operations is lower in the 2026 Mine Plan due to a combination of smaller contact water inventory in the ponds at start of operations, lower freshwater requirements for ore processing, and transfer of water contact water to the SWP. Overall, the 2026 Mine Plan model shows a greater utilization of the available contact water storage during the early years of Operations, while remaining below 75% of the utilization of total storage. Past Year 4 the 2026 Mine Plan shows a generally lower utilization of the available contact water storage, mainly due to the larger total available storage at site.

Table 6 Stored and maximum capacity of contact water on site for the 2022 and the 2026 Water and Load Balance during Operations

Mine Year	2022 Mine Plan			2026 Mine Plan		
	Stored contact water[1] (M-m^3)	Contact water storage capacity (M-m^3)	Storage capacity used	Stored contact water[1] (M-m^3)	Contact water storage capacity (M-m^3)	Storage capacity used
Y1	1.8	4.2	42%	0.8	3.2	23%
Y2	2.8	9.7	29%	1.7	2.9	58%
Y3	4.7	9.2	51%	2.3	3.2	73%
Y4	6.4	8.7	74%	3.5	14.4	24%
Y5	7.9	19.5	41%	5.2	13.7	38%
Y6	9.4	19.0	50%	6.9	24.7	28%
Y7	10.9	18.5	59%	8.6	24.2	36%
Y8	12.4	18.0	69%	10.4	23.7	44%
Y9	13.9	17.5	79%	11.5	23.2	50%
Y10	15.4	17.1	90%	12.6	22.8	55%

Y11	16.2	16.6	97%	13.7	22.3	61%
Y12	14.7	16.1	92%	14.8	21.8	68%
Y13	11.1	15.8	70%	15.9	20.5	78%
Y14	12.2	15.6	79%	-[2]	-[2]	-[2]
Y15	13.3	13.6	98%	-[2]	-[2]	-[2]

Notes:

1. End of year volumes. Predictions using a constant average climate.
2. The 2026 Mine Plan is 2 years shorter than 2022 Mine Plan, ending in Year 13 instead of Year 15.

Table 7 compares the predicted annual saline water volumes requiring management at the Goose site in the 2022 and 2026 Mine Plan models, with the available saline water storage capacity. Stored saline water includes water managed within the SWP and, once available, the Goose Main Reservoir. The comparison confirms that sufficient saline water storage capacity is available throughout Operations with RO treatment.

Saline water sources include groundwater inflows from the underground mines and Llama Pit and water that comes into contact with saline flows, such as runoff reporting to the SWP. The 2026 Mine Plan model shows a greater amount of saline water to be managed at site, mostly because of the removal of the diversion berm around the SWP. The greater stored saline water volume predicted by the 2026 Mine Plan model is mostly due to the later start of RO treatment (start in Year 4 compared to year 3 in the 2022 model) and an assumed shorter seasonal duration of RO treatment (from July to October, compared to year round treatment), to allow for a more efficient utilization of the storage capacity available in SWP. The shorter assumed seasonal duration of RO treatment in the 2026 Mine Plan model is a conservative assumption, as it is expected that RO treatment can be continued beyond the July to October period assumed in the model. In the 2026 Mine Plan model, saline water storage capacity is generally greater than in the 2022 Mine Plan model, except for the first 2 years of Operations due to the proposed staged construction of SWP.

Table 7 Stored and maximum capacity of saline water on site for the 2022 and the 2026 Water and Load Balance

Mine Year	2022 Mine Plan			2026 Mine Plan		
	Stored saline water[1] (Mm^3)	Saline water capacity (Mm^3)	Storage capacity used	Stored saline water[1] (Mm^3)	Saline water capacity (Mm^3)	Storage capacity used
Y1	0.5	1.8	29%	0.1	0.3	42%
Y2	0.9	1.8	48%	0.3	1.2	27%
Y3	0.3	1.8	18%	1.0	1.9	53%
Y4	0.2	1.8	10%	1.2	1.9	64%
Y5	0.2	1.8	10%	1.3	1.9	64%
Y6	0.2	1.8	10%	1.2	1.9	60%
Y7	0.2	1.8	10%	1.1	1.9	56%
Y8	0.2	1.8	10%	1.0	1.9	52%
Y9	0.2	1.8	10%	1.6	20.2	8%
Y10	0.2	1.8	10%	2.3	20.2	11%

Y11	0.2	1.8	10%	2.9	20.2	15%
Y12	0.2	19.1	1%	3.5	20.2	17%
Y13	2.1	19.1	11%	4.0	20.2	20%
Y14	2.7	19.1	14%	-[2]	-[2]	-[2]
Y15	3.3	19.1	17%	-[2]	-[2]	-[2]

Notes:

1. End of year volumes. Predictions using a constant average climate.
2. The 2026 Mine Plan is 2 years shorter than 2022 Mine Plan, ending in Year 13 instead of Year 15.

Comparison of water quality in the main water storage facilities

The main changes related to water quality are associated to the revision to the site's NPAG/PAG classification and the change in proportion of the volumes of the various lithologies of the material that will be extracted from the pits and underground development. These changes mostly affect the predicted loading from the waste rock storage areas. The updated classification in the 2026 model results in a smaller proportion of material being categorized as PAG. Separate source terms are applied to the PAG and NPAG fractions of each lithology mined and placed within the WRSAs.

Figure 2, Figure 3 and Figure 4 compare the predicted operational-period total loading from the WRSAs for the key parameters of concern identified in Table 5-2 of BGC (2026). Total dissolved solids (TDS), total suspended solids (TSS), and total cyanide are not included, as these parameters are not represented in the waste rock source terms. Overall, the larger WRSA footprint in the 2026 model results in an average increase in total Operations phase loading of approximately 30% (even considering a 2 year shorter Operation phase in the 2026 Mine Plan compared to the 2022 Mine Plan), with the exception of:

1. Ammonia (as N), which increased by 38%. Ammonia loading is associated with blasting residue and is therefore calculated based on rock production tonnage rather than facility footprint. The surface rock powder factor was increased from 0.26 to 0.27 kg ANFO/tonne rock in the 2026 model.

2. Lead, which decreased by 14%. This reduction is primarily attributable to changes in the PAG/NPAG classification within the Echo/Goose WRSA. The effect is most pronounced for iron formation material, for which the PAG lead source term is more than four times higher than the corresponding NPAG source term.

These changes in concentration will not affect the capability of using the contact water as reclaim water for the mill nor the proposed water treatment strategy, which remains the same between the 2022 and the 2026 Mine Plan models.

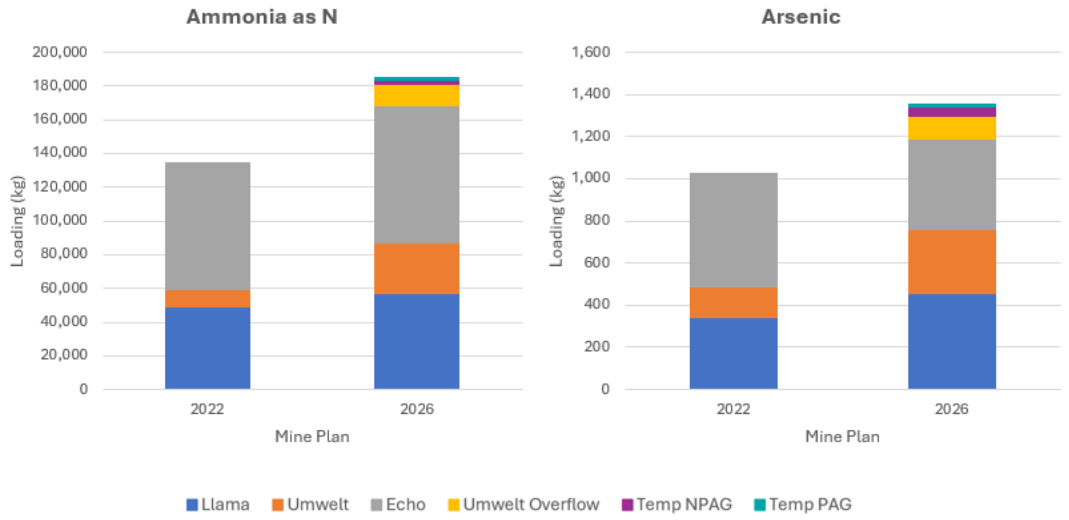


Figure 2 Total ammonia (as N) and arsenic loading from the waste rock storage areas during the Operations phase for the 2022 and 2026 Mine Plan models

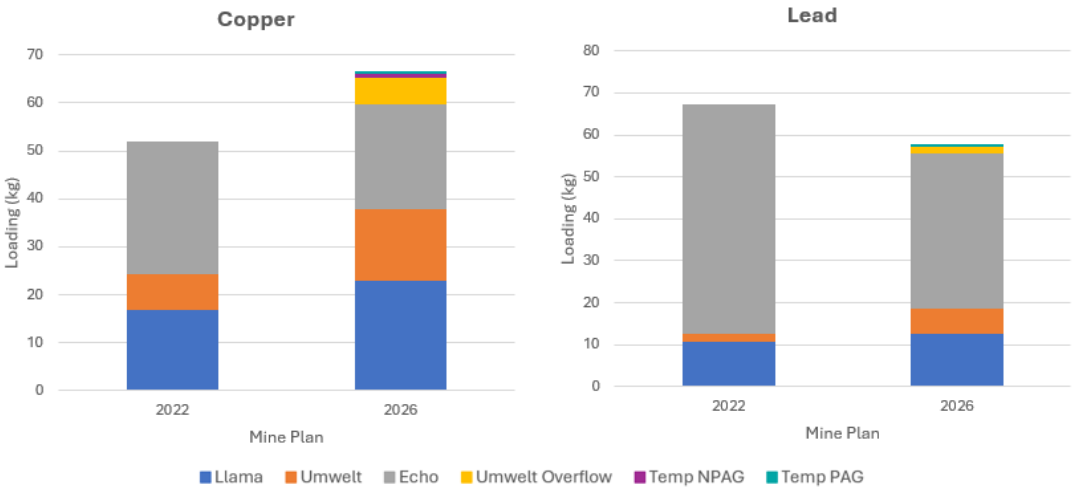


Figure 3 Total copper and lead loading from the waste rock storage areas during the Operations phase for the 2022 and 2026 Mine Plan models

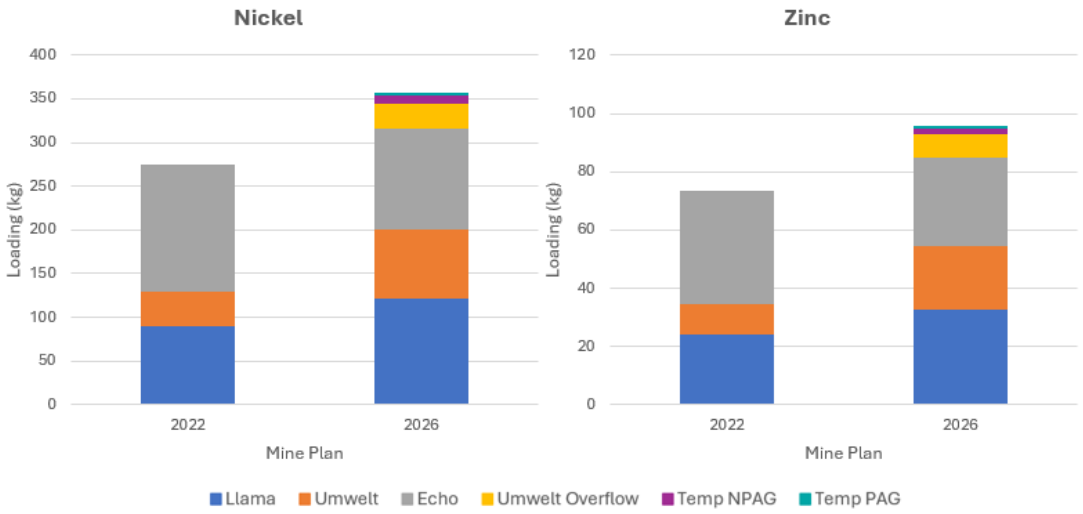


Figure 4 Total nickel and zinc loading from the waste rock storage areas during the Operations phase for the 2022 and 2026 Mine Plan models

Both the 2022 and the 2026 Mine Plan models are mostly based on climatic and hydrologic inputs, and tailings characteristics which were developed prior to construction and operations activities at the Goose Mine. Since start of the Operations phase, as part of the monitoring program, B2Gold Nunavut has been collecting a wide range of data such as climate, water levels, tailings characteristics and reclaim rate that reflect actual conditions at site. B2Gold Nunavut has initiated a comprehensive update of the water balance model that will be calibrated to the data collected at site and that will use calibrated parameters for future predictions, to the practicable extent. B2Gold Nunavut expects to use this updated model to drive water management decisions at site and also to support future permitting applications.

2.5 ECCC #6 CATCHMENT

ECCC Comment

ECCC appreciates the clarification and error corrections provided by the Proponent's response. However, ECCC maintains the recommendation that the overburden stockpiles from the water collection system and the water and load balance be included and updated.

Recommendation: ECCC recommends, similarly to ECCC's recommendations in comment 4, that the Proponent clarify the absence of collection on the overburden stockpiles and exclusion from the water and load balance.

B2Gold Nunavut Response

B2Gold Nunavut acknowledges ECCC's comment and refers ECCC to the response to ECCC#4.

3. REFERENCES

B2Gold Nunavut. 2026b. Goose Mine Waste Rock Management Plan V4.0. June 2026.

B2Gold Nunavut. 2026c. Goose Mine Water Management Plan V6.0. June 2026.

BGC (BGC Engineering Inc.). 2026. Goose Project 2026 Water and Load Balance Report. Submitted to B2Gold Back River Corp. June 2026.

Sabina (Sabina Gold & Silver Corp.). 2015. The Back River Project, Final Environmental Impact Statement. Submitted to the Nunavut Impact Review Board. November 2015.

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

WSP Golder. 2022. Back River Project Water and Load Balance Report. Submitted to Sabina Gold & Silver Corp. August 2022.

4. **APPENDIX** – CIRNAC #9 PREDICTED GROUNDWATER INFLOWS

TECHNICAL MEMORANDUM

Date September 29, 2026

Project 1829003

To Macoura Koné, PhD., PGeol., PGeo. Manager, Environment
B2Gold Back River Corp.

Document 1829003-TM01-Rev.0

From Paolo Chiaramello, P.Eng

Goose Project – 2026 Water and Load Balance Model Groundwater Sensitivity Analysis

1.0 INTRODUCTION

This technical memorandum documents the results of the sensitivity analysis on the saline groundwater inputs to the Water and Load Balance Model (Model) developed for the Goose Mine to support the 2026 Water Management Plan (WMP) (B2Gold, June, 2026a). The Model is used as a planning tool to evaluate water management and storage capacity requirements and water treatment needs throughout the life of mine by providing water quantity and water quality predictions. The purpose of the sensitivity analysis is to assess the potential effects of alternative groundwater inflow predictions on the management of saline water at the mine.

2.0 BACKGROUND

The Model was developed in GoldSim to simulate water quantity and water quality throughout the life of mine (BGC, June 15, 2026). The model integrates hydrologic inputs, mine development sequencing, site infrastructure, water management strategies, and saline groundwater inflows to predict water storage, transfer and quality across key mine facilities.

The Model consists of linked water and load balance components. The water balance component tracks all major inflows, storage volumes, and outflows within the site water management system, while the load balance component uses the predicted water flows and source-term concentrations to estimate constituent loading and water quality. The model was developed as a planning tool to evaluate water management requirements, treatment needs, and available storage capacity throughout the mine life.

2.1 Groundwater Inflows

Goose Mine is located in a continuous permafrost region of the Canadian Arctic. Several mine developments are expected to extend below the permafrost layer into unfrozen ground, where saline groundwater inflows may be encountered. These inflows require separate management

from other mine contact water due to their elevated salinity. Salinity is tracked in the Model using total dissolved solids (TDS).

The mine developments expected to receive saline groundwater inflows include:

- Llama Open Pit
- Llama Underground (UG)
- Umwelt UG
- Goose Main UG
- Echo UG.

All other mine developments (i.e., Umwelt Pit, Echo Pit and Goose Main Pit) are expected to remain within permafrost and are therefore not anticipated to receive significant saline groundwater inflows.

Saline groundwater inflows were initially estimated by SRK (October, 2015) using a three-dimensional FEFLOW groundwater model developed to support the Back River Project Final Environmental Impact Statement (FEIS). In 2022, WSP Golder (August 30, 2022a, 2022b) updated the groundwater model to reflect revisions to the mine plan, including changes to the open pit and underground mine development sequence, numerical mesh discretization, model boundaries, and hydrogeological parameterization. The updated assessment evaluated three saline groundwater inflow scenarios based on alternative hydraulic conductivity assumptions, resulting in different predicted inflows and associated TDS concentrations:

- **Scenario 1:** Near surface (0 to 200 m) hydraulic conductivity equal to the arithmetic average of packer test results, with deeper bedrock hydraulic conductivity based on the profile adopted by SRK (October, 2015).
- **Scenario 2a:** Near-surface hydraulic conductivity equal to the arithmetic average of packer test results, with elevated bedrock hydraulic conductivity between 200 m and -500 m elevations (i.e., three times the geometric average) and a progressive reduction in hydraulic conductivity below -500 m elevation to a minimum of 5×10^{-10} m/s.
- **Scenario 2b:** Same hydraulic conductivity assumptions as Scenario 2a, with increased near-surface bedrock storage properties within the Llama Open Pit area.

Several changes to the mine plan have occurred since the WSP Golder (August, 2022a, 2022b) groundwater model leading to the current mine plan (B2Gold, June, 2026a). These changes include changes in open pit footprints and underground workings, which have the potential to impact saline groundwater inflows:

- Llama Open Pit: development commencing one year later and the pit bottom 25 m higher.
- Llama UG: development commencing four years later with an initial elevation 135 m higher, an ultimate elevation 280 m lower and development ending three years earlier.
- Umwelt UG: an initial elevation 195 m lower, an ultimate elevation 10 m lower, and development ending four years earlier.
- Goose Main UG: development commencing one year later, with an initial elevation 20 m higher, an ultimate elevation 50 m lower, and development ending two year later.

- Echo UG: development commencing five years earlier, with an initial elevation 15 m lower, an ultimate elevation 55 m higher, and development ending two year earlier.

As a result, the saline groundwater inflow estimates from WSP Golder (August, 2022a, 2022b) were modified for use in the Model. The methodology used to adjust the saline groundwater inflow and TDS concentrations to reflect the current mine plan is described in Section 3.0.

2.2 Saline Water Management

The saline water management on site is described in the Saline Water Management Plan (B2Gold, June, 2026b). Saline groundwater is characterized by elevated TDS concentrations and therefore requires segregation from contact and non-contact water to the extent practicable. During Operations, saline groundwater is collected and directed to the Saline Water Pond (SWP), which provides temporary storage of saline water (B2Gold, June, 2026b). Beginning in Year 4, reverse osmosis (RO) treatment is used to manage the saline water inventory with a treatment rate of 5,000 m^3/day (B2Gold, June, 2026b). Treated effluent is transferred to the active tailings facility (Umwelt tailings facility (TF) or Llama TF) for use as reclaim water and brine waste returned to the SWP. Once mining of the Goose Main Open Pit is complete in Year 9, Quarter 3, the Goose Main Reservoir becomes available as the permanent saline water storage facility (B2gold, June, 2026b). At that time, saline water stored in the SWP and subsequent saline groundwater inflows are transferred to the Goose Main Reservoir for long-term storage, and the SWP is maintained at low water levels to provide contingency storage capacity, as required. Goose Main Reservoir is expected to develop meromictic conditions during Closure.

3.0 GROUNDWATER INPUTS

3.1 Method

Groundwater inflow predictions from WSP Golder (August, 2022b) were used as the basis for the update and scaled to reflect differences in mining depth and timing between the previous (2022) and the current mine plan (2026). The WSP Golder (August 30, 2022b) groundwater model was not rerun; instead, groundwater inflows and TDS concentrations were adjusted based on mine development elevations while retaining the hydrogeological assumptions from the WSP Golder (August 30, 2022b) analysis, including hydraulic conductivity and TDS relationships with depth. Groundwater inflow scaling was completed for both Scenario 1 and Scenario 2b (selected over 2a based on slightly higher inflows in early stages of Llama Pit) considered by WSP Golder (August 30, 2022b). The key assumptions used for the scaling of the groundwater inflows and TDS concentrations are described below.

Echo, Umwelt and Goose Main Open Pits

The planned mining depths for the Echo, Umwelt, and Goose Main open pits are generally comparable to those evaluated by WSP Golder (August 30, 2022b). As a result, the assumption

that these pits remain entirely within permafrost remains unchanged (BGC, June 25, 2026), and no groundwater inflows are predicted for these developments.

Llama Open Pit

Llama Open Pit will occur in the footprint of Llama Lake, which is associated with a talik (i.e., a body of unfrozen ground within an area of continuous permafrost). The initial mining elevation is approximately 20 m higher than in the 2022 Mine Plan. Accordingly, groundwater inflow and TDS predictions for the upper portion of the pit, occurring in its first year of development, were based on WSP Golder (August 30, 2022b) Scenario 2b, which specifically evaluated the sensitivity of groundwater inflows to enhanced near-surface bedrock storage conditions within the Llama Pit.

WSP Golder (August 30, 2022b) identified that groundwater inflows to the Llama Pit are influenced by underdrainage to the Llama Underground. The 2022 mine plan (WSP Golder August 30, 2022b) considered Llama Pit and Llama Underground starting at the same time. Therefore, the groundwater predictions for Llama Pit in WSP Golder (August 30, 2022b) accounted for the effect of the underdrainage by Llama Underground for the entire duration of mining of Llama Pit. The 2026 mine plan considers Llama Underground starting 2 years after Llama Pit. BGC acknowledges that the use of the WSP Golder (August 30, 2022b) may underestimate inflows to Llama Pit during the first two years of mining of Llama Pit (i.e. prior to development of Llama Underground). BGC does not expect this underestimation to have a significant impact on the overall management of saline water at Goose Mine.

Underground Mines

For underground developments, groundwater inflow rates and TDS concentrations were generally scaled based on mining elevation. The approach assumes that groundwater quantity and quality are primarily controlled by mining depth and does not explicitly account for differences in mining rates between the two mine plans.

- For Umwelt UG, the minimum mining elevation in the 2026 mine plan is approximately 10 m lower than in the mine plan used by WSP Golder (August 30, 2022b).
- Echo UG mining elevations are approximately 55 m higher and the same constant inflows were assumed to remain unchanged from the WSP Golder (August 30, 2022b) predictions.
- Goose UG extends approximately 50 m deeper than in the mine plan used by WSP Golder (August 30, 2022b). For mining below -100 m elevation (minimum elevation from the Sabina Mine Plan), groundwater inflows and TDS concentrations were based on the WSP Golder (August 30, 2022b) predictions for Umwelt UG which extends the deepest.
- Llama UG extends approximately 280 m deeper than in the Sabina Mine Plan; below -80 m elevation (minimum elevation from the Sabina Mine Plan), groundwater inflows and TDS concentrations were based on the WSP Golder Umwelt UG predictions.

3.2 Groundwater Inflows and TDS Concentration

The scaled groundwater inflow corresponding to the current mine plan are presented in Table 3-1. The inflows for Llama Pit between Year 3 and Year 6 and Goose Main UG between Year 10 and Year 13 are predicted to be less than 50 m^3/day. To remain conservative in the Model, values less than 50 m^3/day were taken as 50 m^3/day. Generally, Scenario 2 inflows are greater than Scenario 1. Llama Pit and Echo UG inflows are the same for Scenario 1 and Scenario 2.

Table 3-1 Saline groundwater inflow estimates for Scenario 1 and Scenario 2.

Year	Flow (m^3/day)									
	Llama Pit		Llama UG		Umwelt UG		Goose Main UG		Echo UG	
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
1	0	0	0	0	0	0	0	0	0	0
2	75	75	0	0	130	270	0	0	0	0
3	50	50	0	0	160	350	0	0	0	0
4	50	50	0	0	160	380	0	0	0	0
5	50	50	120	180	170	400	0	0	0	0
6	50	50	110	140	170	410	0	0	0	0
7	0	0	160	350	160	380	0	0	0	0
8	0	0	160	380	140	350	10	10	0	0
9	0	0	170	400	130	330	50	80	50	50
10	0	0	160	380	130	310	50	70	50	50
11	0	0	160	370	130	300	50	70	50	50
12	0	0	160	360	0	0	50	70	50	50
13	0	0	0	0	0	0	50	70	50	50
14	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0

Notes:

S1 = Scenario 1; S2 = Scenario 2

The scaled groundwater inflow TDS concentration corresponding to the current mine plan are presented in Table 3-2. With the exception of Llama Pit, Scenario 2 results in lower predicted TDS concentration.

Table 3-2 Groundwater inflow TDS concentration estimates for Scenario 1 and Scenario 2.

Year	TDS Concentration (mg/L)									
	Llama Pit		Llama UG		Umwelt UG		Goose Main UG		Echo UG	
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
1	-	0	-	-	0	0	-	-	-	-
2	10,000	10,000	-	-	34,500	26,500	-	-	-	-
3	10,000	10,000	-	-	40,700	33,100	-	-	-	-
4	10,000	10,000	-	-	46,500	38,800	-	-	-	-
5	10,000	10,000	8,300	4,400	51,600	43,800	-	-	-	-
6	10,000	10,000	14,700	9,300	55,600	47,600	-	-	-	-
7	-	-	40,000	32,500	59,200	51,100	-	-	-	-
8	-	-	47,100	39,400	63,100	54,800	26,400	21,000	-	-
9	-	-	51,100	45,700	68,400	50,000	26,400	21,000	20,200	10,700
10	-	-	55,100	49,400	71,900	46,600	29,000	26,000	20,200	10,700
11	-	-	59,100	53,100	75,100	43,200	36,000	31,000	20,200	10,700
12	-	-	63,100	56,800	-	-	39,000	33,000	20,200	10,700
13	-	-	-	-	-	-	41,000	34,500	20,200	10,700
14	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-

Notes:

S1 = Scenario 1; S2 = Scenario 2

4.0 SENSITIVITY ANALYSIS RESULTS

This section presents the Model results of the groundwater sensitivity analysis for the groundwater Scenario 1 and Scenario 2, shown in Table 3-1 and Table 3-2. The groundwater sensitivity analysis focuses on evaluating how uncertainty in groundwater inflow predictions influences saline water volumes to be managed, TDS loading and water quality predictions in the main storage facilities for saline water (SWP and Goose Main Reservoir) during Operations.

4.1 Groundwater Inflows and Loading

Scenario 2 predicts saline groundwater inflows that are approximately 2.0 times greater than Scenario 1 during Operations (Figure 4-1). The majority of the increase originates from the Llama UG and Umwelt UG, the two deepest underground mine developments, which collectively contribute approximately 97% of the additional inflow predicted under Scenario 2.

Prior to commissioning of the Goose Main Reservoir (Year 9, Quarter 3), the increased inflows report to the SWP, resulting in approximately 1.9 times greater annual saline groundwater volumes, equivalent to an average increase of 101,800 m³/year. The largest annual difference

occurs in Year 9, when Scenario 2 predicts 162,400 m³ more saline groundwater than Scenario 1. Following commissioning of the Goose Main Reservoir, annual saline groundwater volumes under Scenario 2 remain, on average, 2.3 times greater than Scenario 1, corresponding to an average increase of 104,000 m³/year.

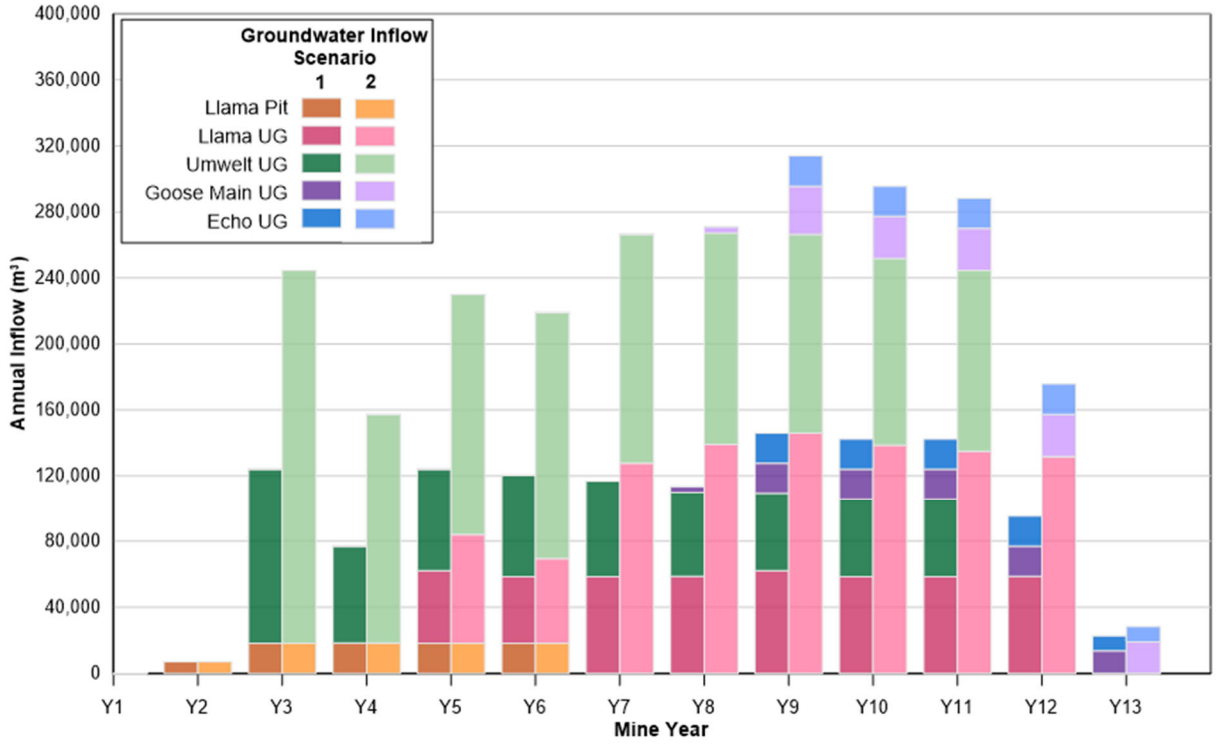


Figure 4-1 Annual predicted saline groundwater inflows to the Goose Mine.

TDS loading follows a similar trend to groundwater inflows. Although predicted TDS concentrations are generally lower under Scenario 2, except for the Llama Pit where concentrations are unchanged, the greater inflow volumes result in higher overall TDS loadings. Scenario 2 predicts approximately 1.8 times greater TDS loading during Operations (Figure 4-2). As with saline groundwater inflows, the increase is primarily associated with the Llama UG and Umwelt UG, which account for most of the difference between scenarios. Over the life of mine, cumulative TDS loading is 77% greater under Scenario 2 than under Scenario 1.

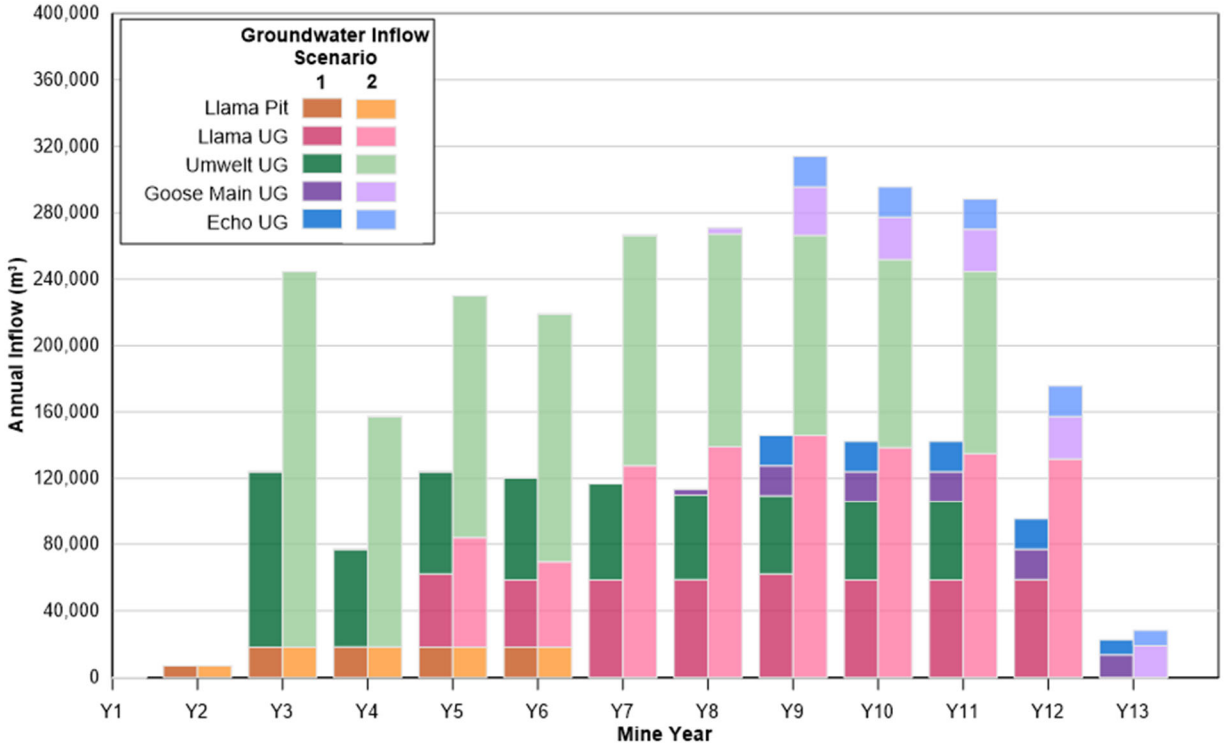


Figure 4-2 Annual predicted saline groundwater inflows to the Goose Mine.

4.2 Effects on Saline Water Storage

The SWP provides temporary storage of saline water until transfer to the Goose Main Reservoir begins in Year 9, Quarter 3. Prior to the transfer to Goose Main Reservoir, RO treatment will be implemented to remove water from SWP until Goose Main Reservoir becomes available. Treated effluent from the RO treatment plant is discharged to the Umwelt TF and the brine is returned to SWP. Consequently, RO treatment cannot start until approximately Year 4 when Umwelt Pit becomes available to receive water and tailings. The critical period for SWP is Year 1 to Year 3 when the only outflow is evaporation.

The increased saline groundwater inflows under Scenario 2 result in greater volumes of saline water requiring storage within SWP prior to commissioning of the RO treatment plant. During this period, Scenario 2 generates approximately 2x greater saline groundwater inflow to SWP than under Scenario 1. The saline groundwater inflows represent only about 16% and 33% of the total inflows to SWP (main inflows are non-saline water from direct precipitation and runoff from the undisturbed area around SWP) under Scenario 1 and 2, respectively. The increase in saline groundwater inflows under Scenario 2 only marginally affects the maximum storage volume in SWP before RO treatment. For average climate conditions, the maximum SWP storage volume increases only by about 13% under Scenario 2 compared to Scenario 1, remaining below the available capacity in SWP.

Following commencement of transfer to the Goose Main Reservoir, SWP storage volumes become similar between the two scenarios as the pond is progressively pumped down throughout the remainder of Operations.

For long term saline storage in Goose Main Reservoir, the increased groundwater inflows of Scenario 2 results in additional saline water requiring storage. Under Scenario 1, the cumulative saline water volume transferred to the Goose Main Reservoir represents approximately 16% of the reservoir storage capacity. Under Scenario 2, approximately 42% more saline water is transferred to the reservoir, increasing saline water storage to approximately 23% of the available capacity. The Goose Main Reservoir retains sufficient storage capacity to accommodate the increased saline water volumes, and the additional saline water is not expected to adversely affect the development of meromictic conditions during Closure.

4.3 Effects on TDS Loading

Although Scenario 2 results in approximately 77% greater cumulative TDS loading than Scenario 1, this increase is not reflected to the same degree in the predicted TDS concentrations in the main saline water storage locations (SWP and Goose Main Reservoir). This is because of the lower concentrations in the inflows under Scenario 2 and because groundwater inflows contribute only 21% to the SWP volume, with the remainder originating from lower-TDS freshwater sources such as runoff and direct precipitation on the pond. As a result, the average monthly TDS concentrations under average climate conditions in the SWP are similar between the two groundwater scenarios for most of Operations (Figure 4-3). Concentrations begin to diverge after Year 9, with Scenario 2 predicting higher SWP TDS concentrations during the period when the SWP is pumped down and saline water is transferred to the Goose Main Reservoir. The higher concentrations are primarily attributable to the larger saline water inventory in the SWP under Scenario 2, which extends the duration required to draw down the pond. The greatest differences occur during the winter months, when freshwater inflows from runoff and precipitation are minimal and cryoconcentration associated with ice formation further increases TDS concentrations in the remaining water volume.

In Goose Main Reservoir, the differences in TDS concentration between Scenario 2 and Scenario 1 are even less pronounced than in SWP for the following reasons:

- Meromictic conditions are expected to develop in Goose Main Reservoir, resulting in expected quality of the water in the upper part of the Goose Main Reservoir not being affected by the groundwater inflows scenarios.
- Under the unlikely event that fully mixed conditions will form in the Goose Main Reservoir (condition conservatively assumed in the water and load balance model), the TDS concentrations will be very similar between Scenario 2 and 1, as shown in Figure 4-4. A difference of approximately 2,000 mg/L in maximum TDS concentration is estimated at the end of Operations.

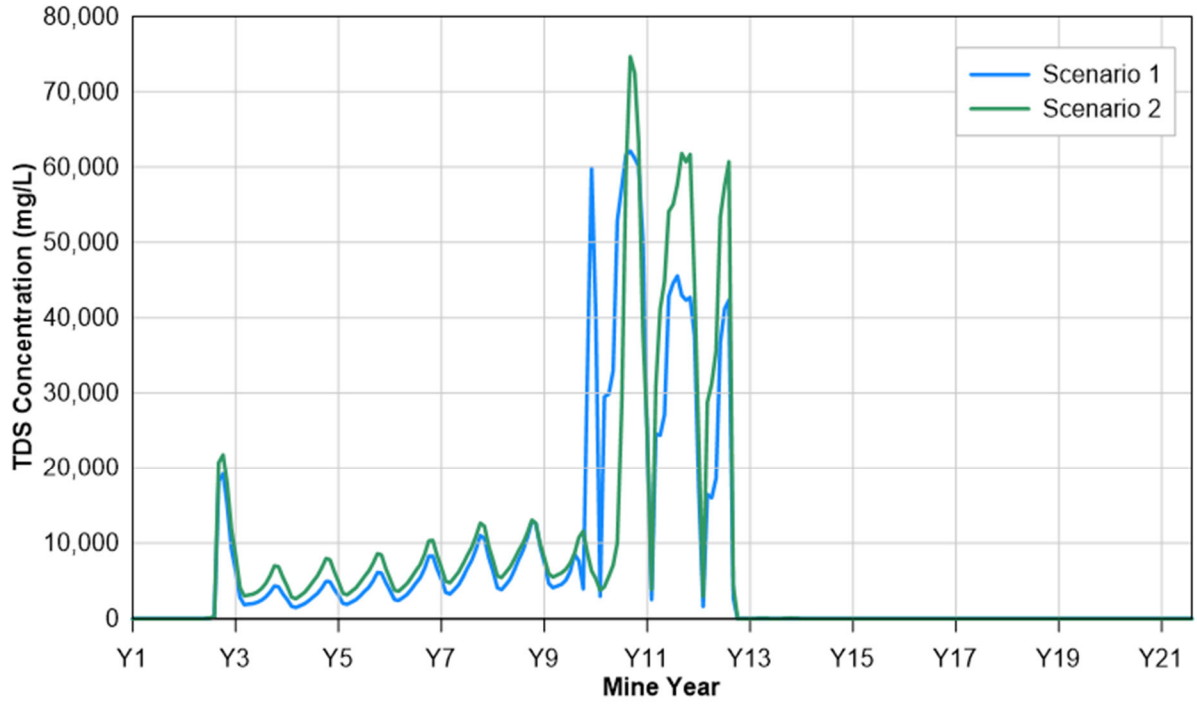


Figure 4-3 Saline Water Pond predicted monthly average TDS concentration.

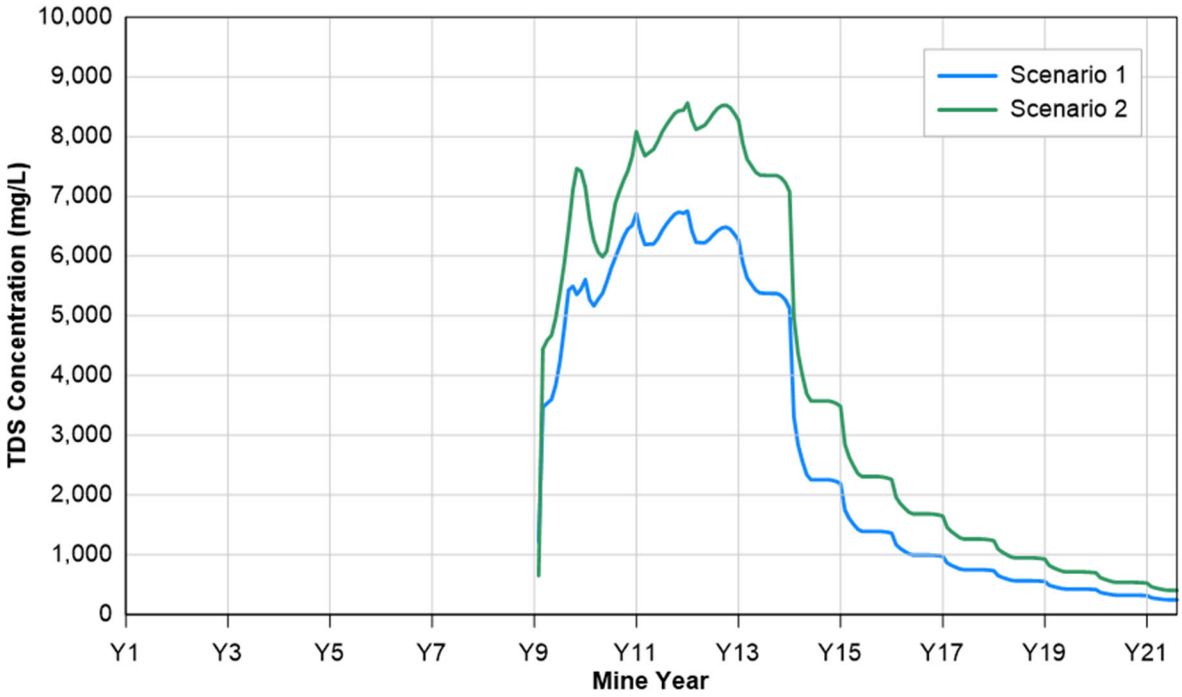


Figure 4-4 Goose Main Reservoir predicted monthly average TDS concentration.

5.0 KEY FINDINGS

The results of the water and load balance model sensitivity analysis to groundwater inflows are summarized below:

- Scenario 2 predicts saline groundwater inflows approximately 2.0 times greater than Scenario 1 during Operations. The increase is primarily associated with the Llama UG and Umwelt UG, which together account for approximately 97% of the difference in predicted groundwater inflows between the two scenarios.
- Despite generally lower predicted groundwater TDS concentrations under Scenario 2 (except for the Llama Pit), the greater inflow volumes result in higher TDS loading. Scenario 2 predicts approximately 1.8 times greater TDS loading than Scenario 1, over the Operations period.
- The increased groundwater inflows result in slightly greater storage within the SWP during the critical period between Year 1 and Year 3 (13% greater storage under Scenario 2 relative to Scenario 1 for average climate conditions). For Goose Main Reservoir, the increase in saline groundwater inflows results in saline water occupying 23% of the Goose Main Reservoir under Scenario 2 compared to 16% under Scenario 1. The storage requirement in SWP and Goose Main Reservoir is not expected to be significantly affected by the greater saline groundwater inflows of Scenario 2.
- The increase in TDS loading under Scenario 2 does not result in a proportional increase in SWP TDS concentrations. Groundwater inflows represent only a portion of the total inflows to the SWP, and groundwater TDS concentrations are similar under both groundwater scenarios before saline water is transferred from the SWP to Goose Main Reservoir (Year 9). TDS concentrations in Goose Main Reservoir are not expected to be affected by Scenario 2 as meromictic conditions are expected to form.

Scenario 1 represents the base case for saline groundwater inflows prediction based on the current understanding of conditions that will be encountered in the various mine developments. Scenario 2 represents a conservative scenario (greater inflows) that was developed to evaluate the event that bedrock hydraulic conductivities are higher than expected.

Groundwater inflow predictions remain inherently uncertain until mining activities intersect the groundwater system and site-specific inflow data become available. B2Gold's water management strategy recognizes this uncertainty and incorporates a range of adaptive management measures, including additional saline water storage capacity, modifications to water treatment requirements and use of alternative storage locations (B2Gold, June, 2026b). Accordingly, BGC recommends that groundwater inflow assumptions and associated saline water management requirements be reviewed and updated as groundwater inflows are encountered and characterized during mine operations to confirm the continued suitability of the water management strategy.

6.0 CLOSURE

We trust the above satisfies your requirements. Should you have any questions or comments, please do not hesitate to contact us.

Yours sincerely,

BGC Engineering Inc.
per:



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PM/HW/JTCS/docrev

Attachment(s): Limitations
References

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REFERENCES

B2Gold Nunavut. (2026a, June). *Goose Mine Water Management Plan* (Version 6.0) [Report].

B2Gold Nunavut. (2026b, June). *Water Management Plan: Appendix C, Saline Water Management Plan* (Version 4.0) [Report].

BGC Engineering Inc. (2026, June 25). *Goose Project: 2026 Water and Load Balance Report* (Rev. 2) [Report]. Prepared for B2Gold Back River Corp. BGC Doc. No. 1829001-R02-Rev2.

SRK Consulting (Canada) Inc. (2015, October). *Hydrogeological Characterization and Modeling of the Proposed Back River Project*. Dated October 2015 [Appendix V2-7A of the FEIS].

WSP Golder. (2022a, August 30). *Back River Project: Water and load balance report* (Ref. No. 21505757-122-R-Rev0-100) [Report]. Prepared for Sabina Gold & Silver Corp.

WSP Golder. (2022b, August 30). *Updated predictions of groundwater inflow – Back River Project* (Ref. No. 20412211-102-TM-Rev0-3700) [Technical Memorandum]. Prepared for Sabina Gold & Silver Corp.