

## MEMO

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**From** B2Gold Back River Corporation (B2Gold Nunavut)

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**To** Nunavut Water Board

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**Ref.** Goose Project

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**Date** June 25 2026

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**Subject** Water Licence No: 2AM-BRP1831 (Amendment No.1) – Modification and Management Plan Updates

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B2Gold Back River Corp. (B2Gold Nunavut) strives for continual improvement in its mine operations and has identified a number of optimizations for the Goose Project (previously referred to as the Back River Project). These optimizations are operational in nature and are within the scope of the project approved by the Nunavut Impact Review Board (NIRB) through Project Certificate No. 007, Amendment No. 001 and subsequently approved by the Nunavut Water Board (NWB or Board) through Water Licence 2AM-BRP1831 (Water Licence).

The operational changes relate to scheduling of open pits, undergrounds, waste rock storage areas (WRSAs), and updated geochemical classification. There are minor changes to mine facilities, which remain within the approved Potential Development Area (PDA). The proposed modifications do not introduce the potential for new environmental impacts, and align with the current water licence terms and conditions.

This submission is contemplated under Part B, Item 16 of the Water Licence, which provides for the update of management plans as required by changes in operation and/or technology. Two management plans approved by the NWB require updates to align with the identified operational changes and are attached to this submission:

- ◆ Waste Rock Management Plan (Attachment A); and
- ◆ Water Management Plan (Attachment B).

B2Gold Nunavut is submitting the operational changes described herein as a Modification not requiring NWB approval under Part G, Item 1 of the Water Licence and requests Board approval of the two attached management plans. B2Gold Nunavut intends to implement the operational changes when approved through these management plans.

Sincerely,



Macoura Kone  
Manager, Environment  
Goose Mine, Nunavut

## 1. GOOSE MINE OPERATIONAL UPDATE

The Goose Project (the Project) is a gold mine owned by B2Gold Back River Corporation (B2Gold Nunavut) within the West Kitikmeot region of southwestern Nunavut. It is situated approximately 400 kilometers (km) southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet, and 520 km northeast of Yellowknife, Northwest Territories (Figure 1).

In 2025, B2Gold Nunavut continued to review and assess the mine design and infrastructure locations to optimize mine operations for the Goose Project. . As a result of this assessment and on-going optimization of the mine development plan, adjustments were made to the overall sequencing and scheduling of open pits, underground workings, WRSAs, and other related facilities. This assessment also included an update of geochemical classification for potentially acid generating (PAG) and non-potentially acid generating (NPAG) waste rock (Attachment C).

B2Gold Nunavut has determined the modifications do not require changes to any terms and conditions of the Water Licence, do not contravene the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (the Act) and are consistent with applicable terms and conditions of NIRB Project Certificate No. 007 Amendment No. 001.

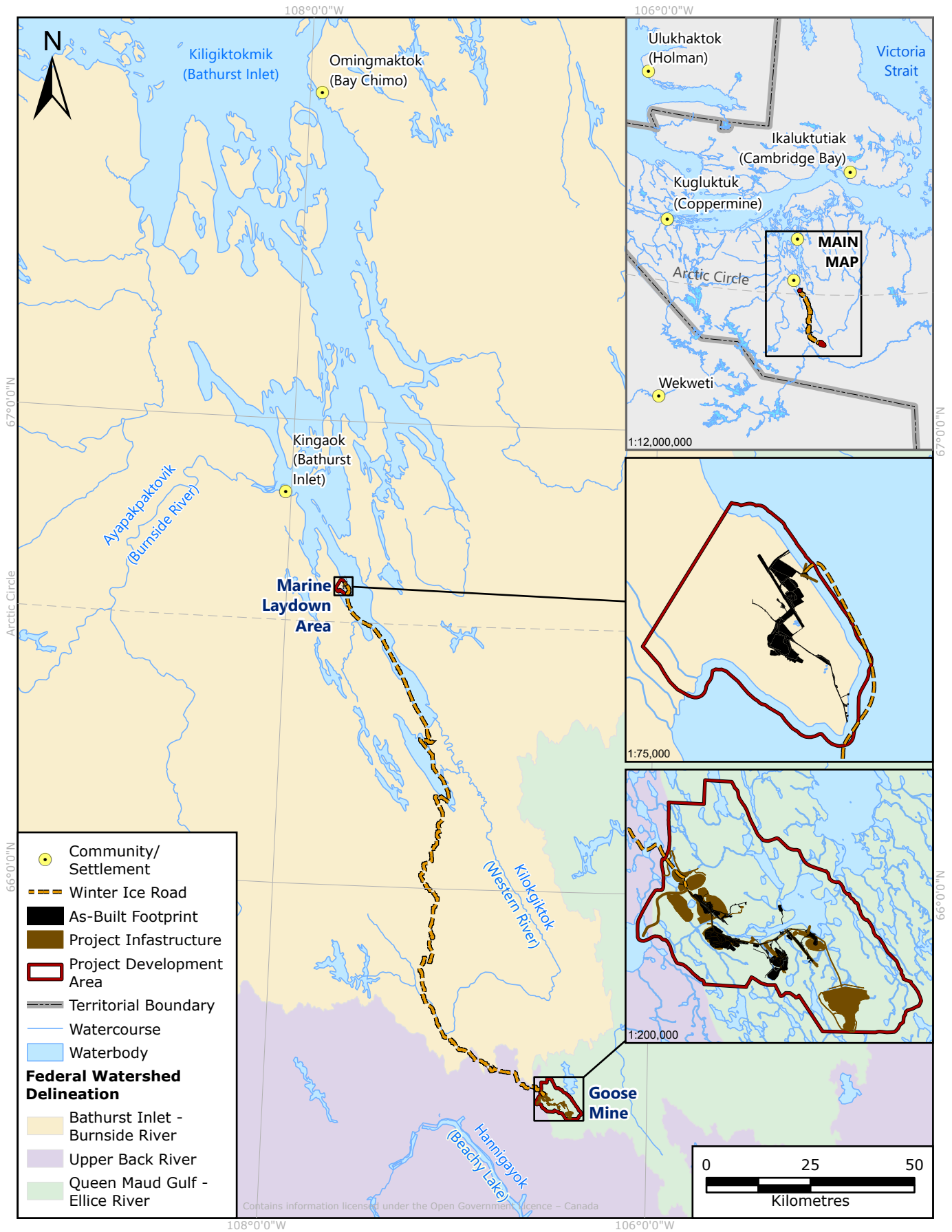
B2Gold Nunavut has prepared the following concordance table that outlines the modification application requirements within Part G: Conditions Applying to Modifications of the Water Licence and the associated Part B, Item 16 conditions.

**Table 1 Water Licence Concordance Table**

<b>Water Licence No: 2AM-BRP1831 Part G Conditions</b>	<b>Section of Submission</b>
1. The Licensee may, without written consent from the Board, carry out Modifications provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:	
1a. The Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;	This document
1b. Such Modifications do not place the Licensee in contravention of the Licence or the Act;	Section 2 Description of the Proposed Modifications
1c. Such Modifications are consistent with the applicable terms and conditions of the NIRB Project Certificate No. 007;	Section 2 Description of the Proposed Modifications
1d. The Board has not, within sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and	To be determined by the Nunavut Water Board

<b>Water Licence No: 2AM-BRP1831 Part G Conditions</b>	<b>Section of Submission</b>
1e. The Board has not rejected the proposed Modifications.	To be determined by the Nunavut Water Board
2 Modifications, for which any of the conditions referred to in Part G, Item 1 have not been met can be carried out only with approval from the Board in writing.	To be determined by the Nunavut Water Board
3. Applications for modifications shall contain:	
3.a. Description of the Facilities and/or works to be constructed	Section 2 Description of Proposed Modifications
3.b. Proposed Location of the structure (s)	Section 2.1 Proposed Structure Locations, Figure 2
3.c. Identification of any potential impacts to the receiving environment	Section 2 Description of Proposed Modifications, Tables 2 to 4 Section 4 Potential Impacts and Monitoring
3.d. Description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling	Section 2 Description of Proposed Modifications, Tables 2 to 4
3.e. Proposed schedule for Construction	Section 2.2 Construction Schedule
3.f. Drawings of any Engineered Structures stamped by an Engineer	No engineered drawings are included in this submission package.
3.g. Proposed sediment and erosion control measures	Section 4 Potential Impacts and Monitoring
4. The License shall provide to the Board, within ninety (90) days of completion of the Modification, as-built plans and drawings of the Modifications referred to in this Part. These plans and drawings shall be stamped by an Engineer.	Section 5 Conclusion
<b>Water Licence No: 2AM-BRP1831 (Amendment No. 1) Part B, Item 16</b>	<b>Section of Submission</b>
The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plans accordingly. Revisions to the Plans are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 2, complete with a revisions list detailing where significant content changes are made.	Attachment A Waste Rock Management Plan Attachment B Water Management Plan

FIGURE 1 GOOSE PROJECT OVERVIEW



## 2. DESCRIPTION OF PROPOSED MODIFICATIONS

B2Gold Nunavut has updated the mine development sequence in a manner that provides for more efficient operations. Minor adjustments are proposed to some of the WRSAs, water management facilities, access roads, and related operational facilities at the Goose Mine. No changes are proposed to the Allen Kapolak Marine Laydown Area or the connecting Winter Ice Road.

Operational changes to mine infrastructure are as follows:

- ◆ Adjustment to the location and dimensions of the Llama WRSA (Figure 5.1-1; Attachment A Waste Rock Management Plan, Section 5.4.1.3)
  - ◇ The Llama WRSA will have an area of approximately area of 59 ha, have a height of approximately 110 m, and will be located north of the Llama Open Pit.
- ◆ Adjustment to the location and dimensions of the Umwelt WRSA (Figure 5.1-1; Attachment A Waste Rock Management Plan, Section 5.4.1.1)
  - ◇ The Umwelt WRSA will have an area of approximately 38 ha, have a height of approximately 80 m, and will be located east of the Umwelt Open Pit.
- ◆ Addition of Umwelt Overflow WRSA (Figure 5.1-1; Attachment A Waste Rock Management Plan, Section 5.4.1.2)
  - ◇ A supplementary waste rock storage area for both the Umwelt and Llama pits.
- ◆ Addition of two temporary waste rock stockpiles (Figure 5.1-1; Attachment A Waste Rock Management Plan, Section 5.4.1.5):
  - ◇ Temporary NPAG Stockpile
  - ◇ Temporary Underground PAG Stockpile, material relocated underground as operational backfill
- ◆ Minor adjustments to the dimensions and timing of open pits and underground developments (Section 8.2.3, Attachment B Water Management Plan)
- ◆ Addition of three overburden stockpiles (Figure 5.1-1; Attachment A Waste Rock Management Plan, Sections 5.4.1.6 and 5.4.1.7):
  - ◇ Umwelt Overburden Stockpile
  - ◇ Llama Overburden Stockpile
  - ◇ Echo Overburden Stockpile
- ◆ Minor changes to roads and pads (Figure 5.1-1 Attachment A Waste Rock Management Plan,)
- ◆ Updated NPAG and PAG waste rock segregation criteria (Attachment C)

The locations of the proposed modifications are within the PDA for the Goose Mine and are described below in Tables 2 to 4.

The Water Management Plan has been updated to include the modifications, all key water management objectives, environmental protection measures, monitoring program and environmental reporting (Sections 2, 9, 10 and 11 of Attachment B) remained the same as the currently approved Water Management Plan (Sabina Gold and Silver, 2024). WRSA seepage and runoff will continue to be collected in perimeter berms and directed to collection and pumped to Primary Pond or the active

Tailings Facility. Monitoring will continue to align with the Water Licence Schedule 1, with no update to Section 10 of the Water Management Plan from the currently approved plan. To align with the updated modification footprint, B2Gold Nunavut has updated the Goose Mine catchments (Figure A-02, Section 6.3.1 Water Management Plan Attachment B).

All modifications are consistent with the Project Certificate with no change to the potential impacts to wildlife, vegetation, heritage resources, or socio-economic conditions. The modified footprint will not overlap additional fish-bearing waterbodies from those already identified and assessed in the Water Licence and *Fisheries Act* Authorization process. While the footprint will increase (Tables 2 to 4), all modification components will be within the PDA.

### 2.1.1 WASTE ROCK STORAGE AREA

As detailed above, the Llama WRSA and the Umwelt WRSA are proposed to undergo location and dimension modifications in addition to the Umwelt Overflow WRSA. These modifications are consistent with the Waste Rock Storage Area Management Approach and Associated Design Criteria submitted as part of the Type A Water Licence application (SRK Consulting, 2015).

The Temporary NPAG Stockpile will be used to temporarily store NPAG waste rock material, that will later be used as construction material throughout the Goose Mine. The Temporary Underground PAG Stockpile will be used to temporarily store PAG waste rock material from Llama Underground; this material will be later removed and used for backfilling Llama Underground.

Table 2: Waste Rock Storage Area Analysis

Water Licence 2AM-BRP1831 Part G Condition 3 a. to d.	Proposed Modification Component	2017 Water Licence Application	2021 Amendment application	Proposed Modification	Description of Change	
3.	Applications for modifications shall contain:					
3a.	Description of the Facilities and/or works to be constructed	Llama WRSA	Size: 37.55 ha	Size: 14.7 ha	Size: 59 ha	The Llama WRSA is located within the PDA, and within and adjacent to the current Llama WRSA footprint.
		Umwelt WRSA	Size: 39.48 ha	Size: 39.48 ha	Size: 38 ha	The Umwelt WRSA is located within the PDA, and primarily within the current Umwelt WRSA footprint.
		Umwelt Overflow WRSA		-	Size: 13 ha	The Umwelt Overflow WRSA is within the PDA, and within the current

Water Licence 2AM-BRP1831 Part G Condition 3 a. to d.	Proposed Modification Component	2017 Water Licence Application	2021 Amendment application	Proposed Modification	Description of Change
					Llama WRSA footprint.
	Temporary NPAG Stockpile		-	New temporary NPAG Stockpile used for construction and/or reclamation	The temporary NPAG stockpile is located within the PDA, within the current Llama WRSA footprint and north of the Umwelt Overflow WRSA.
	Temporary Underground PAG Stockpile		-	New temporary underground PAG stockpile used for operational backfill underground	The temporary NPAG stockpile is located within the PDA and north of the Umwelt Overflow WRSA.
3b.	Proposed Location of the structure(s)	Llama, Umwelt, and Umwelt Overflow WRSAs, and the temporary NPAG and PAG stockpiles are all within the PDA and Goose Mine catchments (Appendix A of the Water Management Plan, Attachment B).			
3c.	Identification of any potential impacts to the receiving environment	Proposed WRSAs design and location follow the environmental protection measures in Section 9 of the Water Management Plan (Attachment B). All WRSA runoff will be pumped to Primary Pond or active Tailings Facility.			
3d.	Description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling	No changes are required to the Water Licence monitoring programs, including sampling locations, parameters measured and frequencies of sampling as drainage and runoff will follow the waste rock storage areas water management activities in Section 8.2.6 of the Water Management Plan (Attachment B).			

### 2.1.2 OPEN PITS

The open pits (Llama, Umwelt, Goose Main, Echo) are proposed to go through minor adjustments in dimensions and timing (Table 3). The open pits are proposed to be larger in size and will be extending into areas already planned for disturbance.

Table 3: Open Pits Analysis

Water Licence 2AM-BRP1831 Part G Condition 3a. to 3.d	Proposed Modification Component	2017 Water Licence Application	Proposed Modification	Description of Change	
3.	Applications for modifications shall contain:				
3a.	Description of the Facilities and/or works to be constructed	Llama Open Pit	Footprint: 129,700 m <sup>2</sup>	Footprint: 176,405m <sup>2</sup>	The open pits are located within the PDA, and Project catchment areas. The footprint of the open pits are expanded into areas already planned for disturbance.
		Umwelt Open Pit	Footprint: 161,800 m <sup>2</sup>	Footprint: 219,049m <sup>2</sup>	
		Goose Main Pit	Footprint: 237,400 m <sup>2</sup>	Footprint: 306,256m <sup>2</sup>	
		Echo Pit	Footprint: 32,900 m <sup>2</sup>	Footprint: 102,969m <sup>2</sup>	
3b.	Proposed Location of the structure(s)	All open pits are all within the PDA (Figure 2).			
3c.	Identification of any potential impacts to the receiving environment	Management of contact water from the open pits remains consistent with the Water Licence, and environmental protections and water management measures in the Water Management Plan Section 8.23 and Section 9 (Attachment B) and environmental protection measures in Section 6 of the Waste Rock Management Plan (Attachment A). Precipitation collected in the open pits will be collected using sumps, eventually discharging to the Primary Pond and/or the active Tailings Facility to be used as reclaim water in the Process Plant.			
3d.	Description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling	No changes are required to the Water Licence monitoring programs, including sampling locations, parameters measured and frequencies of sampling as drainage and runoff will follow the water management details related to waste rock storage areas in Section 8.2.3 of the Water Management Plan (Attachment B).			

### 2.1.3 OVERBURDEN STOCKPILES

B2Gold Nunavut had planned to dispose of overburden within the WRSAs, with this modification it is proposed to separate out overburden (geochemically suitable waste rock) to be used for other purposes including general site construction activities, pads, and roads (Section 5.1 of the Waste Rock Management Plan, Attachment A).

Three overburden stockpiles are being proposed: Umwelt Overburden Stockpile located east of Umwelt Open Pit and south of Umwelt WRSA, Llama Overburden Stockpile located east of Llama Open Pit and north of Umwelt WRSA, and the Echo Overburden Stockpile located north of Echo Open Pit and north of Echo/Goose Main WRSA (Table 4).

Table 4: Overburden Stockpiles Analysis

Water Licence 2AM-BRP1831 Part G Condition 3a. to 3.d	Proposed Modification Component	2017 Water Licence Application	Proposed Modification	Description of Change	
3.	Applications for modifications shall contain:				
3a.	Description of the Facilities and/or works to be constructed	Umwelt Overburden Stockpile	Overburden to be disposed within the WRSAs	Size: 20 ha	The Overburden Stockpiles are within the PDA and these stockpiles will be geo-chemically stable.
		Llama Overburden Stockpile		Size: 20 ha	
		Echo Overburden Stockpile		Size: 5.2 ha <sup>1</sup>	
3b.	Proposed Location of the structure(s)	The Overburden Stockpiles are all within the previously assessed PDA, near the WRSA and Open Pits (Figure 2).			
3c.	Identification of any potential impacts to the receiving environment	The overburden will be geo-chemically stable and therefore no predicted impacts to the receiving environment.			
3d.	Description of any monitoring required, including sampling locations, parameters measured, and frequencies of sampling	No changes are required to the Water Licence monitoring programs, including sampling locations, parameters measured and frequencies of sampling as overburden is geo-chemically stable.			

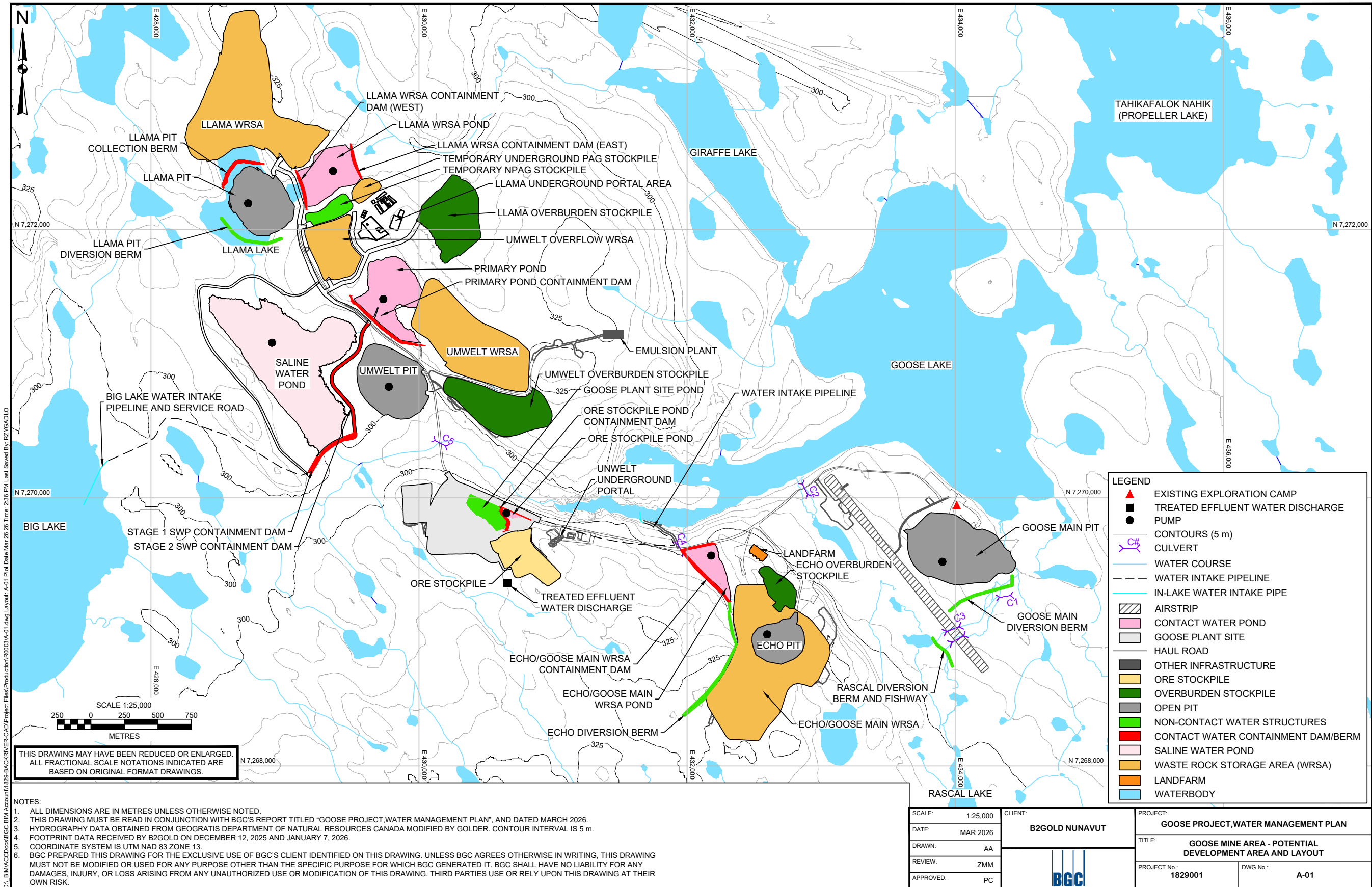
### 2.1.4 ROADS

The modifications proposed will include the creation of roads to access the new modification areas. The development of the roads will adhere to the currently approved management plans and there are no additional culvert crossing locations, Section 6.5 of the Water Management Plan (Attachment B).

### 2.2 PROPOSED STRUCTURE LOCATIONS

The proposed modification components are shown in Figure 2, drawing number A-01 from the Water Management Plan (Attachment B).

FIGURE 2 GOOSE MINE AREA - POTENTIAL DEVELOPMENT AREA AND LAYOUT



## 2.3 CONSTRUCTION SCHEDULE

Table 5 lists the updated mine development schedule.

Table 5 Mine Development Schedule

Mine /Tailings Facility Operation	Start	End
<b>Open Pit Development</b>		
Echo Open Pit	Started during Construction Phase	Y1, Q2
Umwelt Open Pit	Started during Construction Phase	Y4, Q1
Llama Open Pit	Y2, Q4	Y6, Q1
Goose Main Open Pit	Y5, Q1	Y9, Q2
Echo Tailings Facility	Y1, Q2	Y5, Q1
Umwelt Tailings Facility	Y5, Q1	Y11, Q4
Llama Tailings Facility	Y11, Q4	Y13, Q3
<b>Underground Development</b>		
Umwelt Underground Mine	Started during Construction Phase	Y11, Q4
Llama Underground Mine <sup>(a)</sup>	Y6, Q2	Y12, Q3
Goose Main Underground Mine <sup>(a)</sup>	Y10, Q2	Y13, Q3
Echo Underground Mine <sup>(a)</sup>	Y10, Q3	Y13, Q2

*a) Start time refers to beginning of mining; predevelopment activities start approximately 1-2 years before start of mining for each underground mine.*

*Note to Table 2: Project Year 1 (Y1) is 2025.*

## 2.4 UPDATED POTENTIAL ACID GENERATING/NON-POTENTIAL ACID GENERATING WASTE ROCK SEGREGATION CRITERIA

The purpose of the updated waste rock segregation criteria is to improve identification of non-potentially acid-generating (NPAG) waste rock suitable for site operations or potential closure activities, without increasing environmental risk. The update to the segregation criteria is based on a review of site-specific geochemical datasets (Attachment C).

The existing waste rock segregation criteria were developed as part of the 2015 Geochemical Characterization completed by SRK and submitted with the permitting application (Sabina Gold and Silver, 2017). As noted in that assessment, the original acid rock drainage (ARD) classification framework was conservative and anticipated to be refined as additional site-specific data became available. Since construction commenced, a substantial amount of additional static and kinetic geochemical data has been generated, allowing for a further evaluation of waste rock.

The proposed update is based on a comprehensive review of existing acid–base accounting (ABA), net acid generation, sulphur speciation, and carbon data, together with results from 43 humidity cell tests (HCTs) (Attachment C). The kinetic dataset is notable for its duration, with several tests extending beyond 400 weeks, providing a rare and high value dataset for assessing longer term geochemical evolution.

Samples included in the review represent waste rock from the Goose, Umwelt, Llama, and George deposits (Attachment C).

Evaluation of the combined static and extended kinetic datasets indicates that the segregation criteria applied to date have been conservative. For the Goose and Umwelt deposits, analysis of the full dataset indicates that refinement of both neutralization potential ratio (NPR) and total sulphur thresholds provides improved alignment with long term kinetic behaviour. In particular, samples with total sulphur concentrations less than or equal to 0.08 wt% did not generate acidic leachate during HCT testing. In addition, results support refinement of the NPR threshold from 3 to 2 for these deposits. The proposed segregation criteria for Goose and Umwelt waste rock are:

- ◆ **NPAG:**  $\text{NPR} \geq 2$  or total sulphur  $\leq 0.08$  wt%
- ◆ **PAG:**  $\text{NPR} < 2$  and total sulphur  $> 0.08$  wt%

Neutralization potential is determined using the Sobek method, and total sulphur is determined by induction furnace analysis. These criteria are supported by both baseline static testing and extended kinetic results and are considered to appropriately capture acid generation risk while maintaining a protective management approach.

No revised segregation thresholds are proposed at this time for the Llama deposit. Extended kinetic testing indicates that some Llama samples classified as NPAG under the original criteria generated acidic leachate, highlighting the need for additional investigation specific to the total sulphur criteria. Ongoing data review and further static and kinetic testing will inform any future consideration of deposit specific refinements for Llama waste rock.

Overall, the proposed changes represent an adaptive refinement of the WRMP based on construction phase monitoring and extended laboratory testing. The update reduces unnecessary conservative classification of NPAG material as PAG for the Goose and Umwelt deposits, and increases the availability of suitable waste rock for construction and closure applications. Ongoing site-specific data evaluation of Llama waste rock will inform future refinements for the segregation criteria.

### 3. UPDATED MANAGEMENT PLANS

The operational changes identified result in minor changes to the following management plans approved by the NWB, which are attached as indicated:

- ◆ Waste Rock Management Plan (Attachment A)
- ◆ Water Management Plan (Attachment B)

### 4. POTENTIAL IMPACTS AND MONITORING

B2Gold Nunavut has planned and designed these modifications to comply with all permits, licences, and approvals for the Goose Project.

As described in Tables 2 to 4, the proposed modifications will not create any new impacts or change any effects to the receiving environment beyond the scope of what was previously assessed as the

modifications remain within the PDA and were designed to maintain compliance with the Water Licence and the associated updated management plans included with the submission.

B2Gold Nunavut will continue to implement the sediment and erosion control measures that are described in Section 9.4.1 of the Water Management Plan (Attachment B) such that sediment-laden runoff is minimized, intercepted, and/or treated prior to entering downstream receiving waters or mine process facilities.

## 5. COMMUNITY ENGAGEMENT

B2Gold Nunavut has engaged in person with the federal, and territorial governments, Nunavut regulatory authorities, Inuit associations and members of the public regarding project updates, including the general scope of this Modification throughout January-April 2026. Further public engagement in the Kitikmeot region was planned for June 2026 but have now been delayed until Fall 2026 due to logistical challenges.

Engagement activities included project updates with Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and Canadian Northern Economic Development Agency (CanNor), Nunavut Planning Commission (NPC), Nunavut Impact Review Board (NIRB), Nunavut Water Board (NWB), Nunavut Tunngavik Inc (NTI), Cambridge Bay Senior Administrative Officer, and the following engagements with the Government of Nunavut:

- ◆ Department of Community Services
- ◆ Kitikmeot members of the Nunavut Legislative Assembly
- ◆ Premier of Nunavut

B2Gold Nunavut shared project updates, including the general scope of the Modification, during the Kitikmeot Trade Show in Cambridge Bay. Project updates, including the general scope of the Modification, were also shared with members of the Inuit Environmental Advisory Committee (IEAC) during the April 2026 IEAC site visit and meeting.

During the Nunavut Mining Symposium in Iqaluit in April 2026, B2Gold Nunavut met with NIRB, NWB, NPC, Kitikmeot Inuit Association (KIA) and the GN Department of Community Services.

No concerns were raised during the engagements about the general scope of this Modification.

## 6. CONCLUSION

B2Gold Nunavut finds that the operational changes described herein do not contravene the Water Licence or the Act and are consistent with applicable terms and conditions of NIRB Project Certificate No. 007 Amendment No.001. On this basis, Part G, Item 1 of the Water Licence enables B2Gold Nunavut to proceed unless directed otherwise by the NWB within 60 days of this submission.

Part B, Item 16 of the Water Licence provides for the necessary minor updates of two management plans, which are attached to this submission for review and approval by the NWB. B2Gold Nunavut intends to proceed with the identified operational changes upon receipt of approval of the attached management plans.

As the proposed changes are operational in nature, B2Gold Nunavut will report on the implementation of the changes through the reporting mechanisms established in the Water Licence and Project Certificate, most notably the Annual Water Licence Report and the Annual Project Certificate Report.

## 7. REFERENCES

B2Gold Nunavut. (2025). *Fish Offsetting Plan Version 2.0*.

Nunavut Water Board. (2021). *Water Licence No: 2AM-BRP1831 (Amendment No. 1)*.

Sabina Gold & Silver Corp. (2015). *Final Environmental Impact Statement, Vol 1*.

Sabina Gold and Silver. (2017). *Back River Project Main Application Document, Water License*.

SRK Consulting. (2015). *Back River Property: Waste Rock Storage Area Management Approach and Associated Design*.