



# GOOSE PROJECT

MARCH 2024 MONTHLY  
REPORT FOR WATER  
LICENCE 2AM-BRP1831

**DATE**

March 19, 2026

**REFERENCE**

Version 1.0



# **GOOSE PROJECT**

## **MARCH 2024 MONTHLY REPORT**

**In compliance with:**  
Water Licence 2AM-BRP1831 (Amendment No.1)

**Prepared by:**  
RainCoast Environmental Services Ltd.

**Submitted to:**  
Nunavut Water Board (NWB)

**B2GOLD BACK RIVER CORP.**

Suite 3400, Park Place, 666 Burrard Street  
Vancouver, British Columbia, Canada, V6C 2X8  
Telephone: +1 604 681 8371  
[www.b2gold.com](http://www.b2gold.com)

## EXECUTIVE SUMMARY – ENGLISH

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This report presents B2Gold Back River Corp.'s (B2Gold Nunavut's) March 2024 Monthly Monitoring Report for Water Licence 2AM-BRP1831 (Amendment No.1), also referred to as the Licence, issued by the Nunavut Water Board (NWB).

As set out in Part I, Item 18 of the Licence, B2Gold Nunavut is required to submit to the Board, within thirty (30) days following the month being reported, a Monthly Report. This report shall include:

- ◆ All data and information required by Part I and generated by the Monitoring Program in the Tables of Schedule I of the Licence;
- ◆ An assessment of data to identify areas of non-compliance with regulated Discharge parameters referred to in Part D and Part F of the Licence; and
- ◆ Documentation of conditions during spring freshet, major rain events, and periods of sustained precipitation including flow measurements, photographs, and notes.



## AULAPKAIYINI NAITTUQ – INUINNAQTUN

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Una uniudjut pidjutigiyaat B2Gold Back River Corp.'s (B2Gold Nunavut's) Qiqaijalirvia 2024 Tatqighiutini Munaridjutikkut Uniudjutit haffumunga Imakkut Laisia 2AM-BRP1831 (Ihuaqhaqtauyuq No.1), taiyauvaktuqlu Laisimik, tuniyauyuq hapkunanga Nunavunmi Imaliqiyit Katimayiinin (NWB).

Iliuraqtauhimajumi uvani Ilangani I, Item 18 uumani Laisimi, B2Gold Nunavut pitqujauhimajuq tuniluni Katimajiinnun, iluani thirtyni (30) ublunik talvannga tatqirhiutimi unniutidjutimi, uuminnga Tatqiqhiutimi Unniudjutimik. Una taiguagakhaq ilaliutiyukhaq:

- ◆ Tamaita naunaipkutit hivunihijutilu aturiaqaqtut Ilagiyaani I-mi hanayauhimayulu Munarinigagut Havaamit naunaipkutini Naunaipkut I-mi Laisiuyuup;
- ◆ Ihivgiugutit naunaiyautinik naunaiyagiangani humi maliktaungitut maligagaqtut Iqainikkut kiklikhait titiraqhimayut uvani Ilangani D uvalu Ilangani F haffumani Laisimi; unalu
- ◆ Titiraqlugit qanuginiit upingaami mahaktiligaangat, nipalliopiaqnikkut, uvalu nipalukpalaqnikkut ilaayut kuuknikkut aktilaangit, piksat, uvalu titiraqhimayut.

## RÉSUMÉ EXCÉUTIF – FRANÇAIS

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Ce rapport présente le Rapport Mensuel de Suivi de B2Gold Back River Corp. (B2Gold Nunavut) de mars 2024 pour le Permis de l'Eau 2AM-BRP1831 (Amendement No.1) aussi appelé (le Permis) délivré par la Nunavut Water Board (NWB).

Comme indiqué dans la Partie I, Article 18 du Permis, B2Gold Nunavut a l'obligation de soumettre au Conseil dans les trente (30) jours suivant le mois concerné, un Rapport Mensuel. Ce rapport devra contenir:

- ◆ Toutes les données et informations requises par la Partie I et générées par le Programme de Suivi dans les tableaux de l'Annexe I du Permis;
- ◆ Une évaluation des données pour identifier les zones de non-conformité avec les paramètres de Décharge réglementés mentionnés dans la Partie D et la Partie F du Permis ;  
et
- ◆ Une documentation des conditions pendant la crue printanière, les événements de pluie majeure, et les périodes de précipitations soutenues, y compris des mesures de débit, des photographies et des notes.

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## ACRONYMS AND ABBREVIATIONS

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B2Gold Nunavut	B2Gold Back River Corporation
the Licence	Water Licence 2AM-BRP1831 (Amendment No.1)
MLA	Marine Laydown Area
The Goose Mine	Refers to the mining operation being developed within the Goose Claims Group, and includes the open pits, the underground mine, and the on-site infrastructure such as the WRSAs, tailings storage facilities, power infrastructure, and process plant
The Goose Project	Encompasses the Goose Claims Group, Goose Mine, the WIR and the MLA
STP	Sewage Treatment Plant
WIR	Winter Ice Road
WRSA	Waste Rock Storage Area

## 1. INTRODUCTION

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The Goose Mine is a gold mine located within the western Kitikmeot Region of southwestern Nunavut. It is situated approximately 400 km southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet (Kingaok), and 520 km northeast of Yellowknife, Northwest Territories, as illustrated in Figure 1. The Mine is located predominantly within the Queen Maud Gulf Watershed.

This report to the Nunavut Water Board was prepared to satisfy the requirements for a Monthly Monitoring Report for March 2024 for B2Gold Back River Corp.'s (B2Gold Nunavut's) Goose Project in accordance with Part I, Item 18 of Water Licence 2AM-BRP1831 (Amendment No.1), also referred to as the Licence.

As required by Part I, Items 16 and 17, all analyses were performed in an accredited laboratory according to ISO/IEC Standard 17025 and conducted as described in the most recent edition of "*Standard Methods for the Examination of Water and Wastewater*" or by other such methods approved by an Analyst.

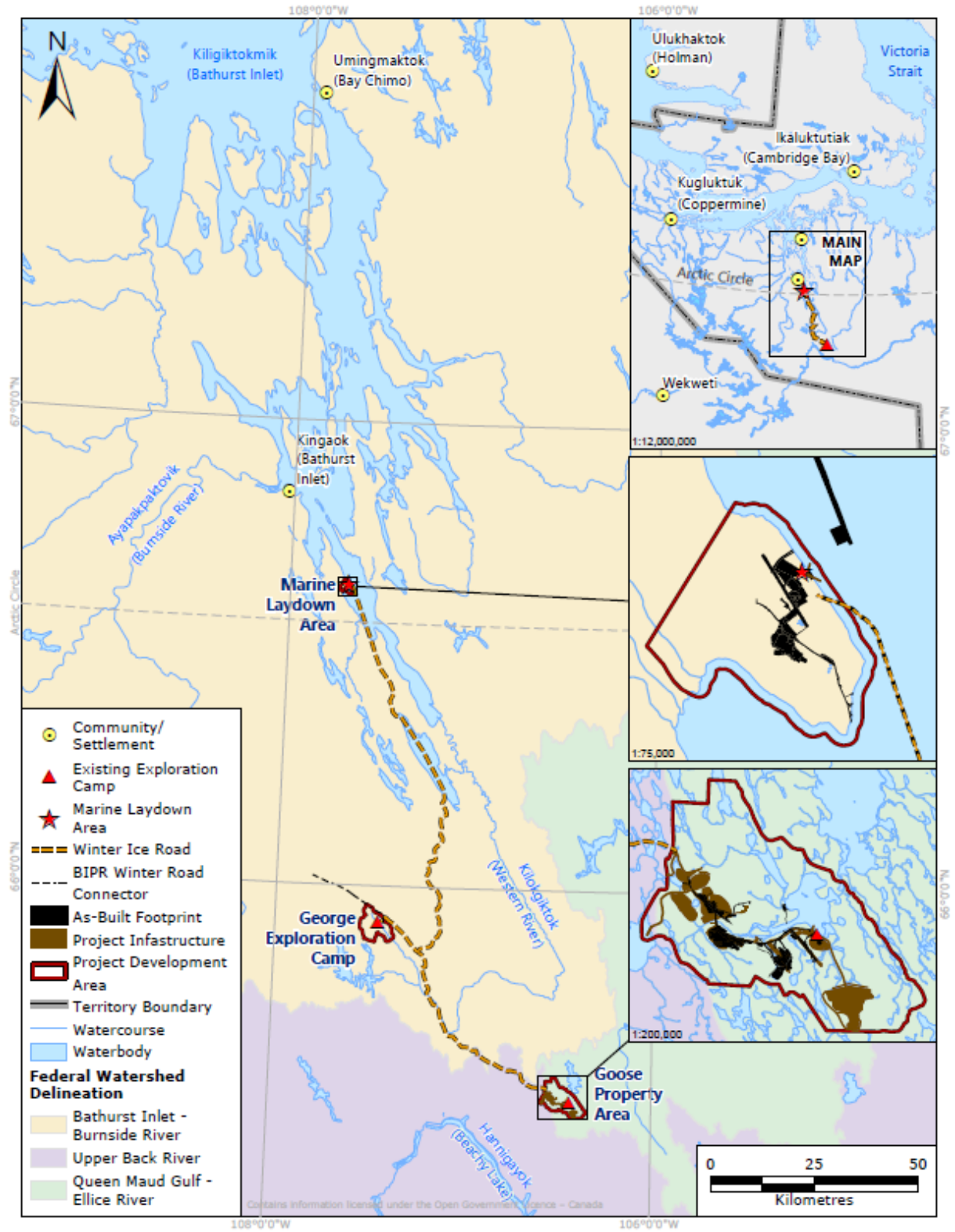


Figure 1 Goose Project Overview

## 2. REGULATORY REQUIREMENTS AND STATUS

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### 2.1 PART I, Item 5

The Licensee shall, at least sixty (60) days prior to a change in Project Phase (Construction, Operations Stages), submit to the Board a written notification of the intent to change Project phase as per Part B, Item 9. Notifications may be provided separately or in accordance with the monthly monitoring report as per Part I, Item 18.

#### **Compliance Status:**

No change in Project Phase will occur over the next 60 days.

### 2.2 PART I, Item 8

The Licensee shall measure and record the following on a Monthly basis in cubic metres or as otherwise stated:

- a. The volume of fresh Water obtained from Big Lake;
- b. The volume of fresh Water obtained from Goose Lake;
- c. The volume of fresh Water obtained from MLA Pond S1, Pond S2, Lake 3, and Lake 4;
- d. The volume of fresh Water obtained from Llama Lake, Umwelt Lake, and other Water bodies approved by the Board for dewatering;
- e. The volume of fresh Water obtained from each Water source for the Interconnection Winter Ice Road and Winter Ice Road Service/Emergency Camps;
- f. The volume of Reclaim Water obtained from the Primary Water Pond, Tailings Storage Facility and/or Tailings Facilities for process Water at the process plant or alternative treatment system;
- g. The estimated volume of Greywater and Sewage released to the environment and/or to the Tailings Storage Facility and Tailings Facilities;
- h. The volume of sludge removed from the STP and the location and method of disposal;
- i. The volume of Effluent discharged from Landfarms, Fuel Tank Farms, and Fuel Storage Facilities;
- j. The estimated volume of Contact Water, WRSA Effluent, Ore Stockpile Effluent, or other Effluent/Water streams pumped into the Primary Water Pond, Tailings Storage Facility, Tailings Facilities, and/or transferred between ponds or facilities; and
- k. The volume of Effluent discharged at the Final Discharge Point.

#### **Compliance Status:**

The following is to comply with Part I, Item 8(a, b, c, d, e, f, g, h, i, and j, and k). The volumes of water obtained from Big Lake, Goose Lake, MLA Pond S1, MLA Pond S2, MLA Lake 3, MLA Lake 4, Llama Lake, Umwelt lake, and other water bodies approved for dewatering are provided in Table 2-1. The MLA used

seawater withdrawn from Bathurst Inlet. Goose Claims Group water use is undertaken under Water Licence 2BE-GOO2028.

**Table 2-1 Volumes of Water Obtained from Approved Sources this Month**

Sources	Volume Used (m <sup>3</sup> )
Big Lake	0
Goose Lake	2,119.8
MLA Pond S1	0
MLA Pond S2	0
MLA Lake 3	0
MLA Lake 4	0
Llama Lake	0
Umwelt Lake	0
Other water bodies approved for dewatering	0

The volume of water obtained from each Winter Ice Road (WIR) water source this month is provided in Table 2-2. A total of 33,065 m<sup>3</sup> of fresh water was used this month. During the 2023/2024 WIR season, some water sources not identified in the WIR Technical Memorandum submitted to NWB prior to the 2023/2024 WIR construction were used in error. A retroactive analysis of the available water capacity of these sources was conducted to determine whether these withdrawals could have posed an environmental risk to the unauthorized waterbodies used. To calculate available water capacities, the surface area of the water source (as determined by available GIS data) was multiplied by 10 cm. This simplified calculation is considered protective of the lake habitat and has been previously used to determine water withdrawal capacity in both Nunavut and the Northwest Territories. In addition, 91 m<sup>3</sup>, or <0.5% of water withdrawn this month, was withdrawn from unknown water sources. The WIR Technical Memo presented the calculated volume of water that could be withdrawn from 55 area lakes, while maintaining nil risk of habitat loss; this volume ranged from 683 to 32,516,148 m<sup>3</sup>, depending on the size of the water source. Based on this analysis and information, it was determined that all withdrawals were unlikely to have posed any environmental risk to the waterbodies; no waterbody-specific calculated available water capacities were exceeded.

**Table 2-2 Volumes of Water Obtained from Winter Ice Road Water Sources this Month**

Sources	Volume Used this Month (m <sup>3</sup> )	Cumulative Volume Used this WIR Season (m <sup>3</sup> )	Available Capacity (m <sup>3</sup> )
1	42	1,285	39,603
10	308	1,806	29,503*
10A	0	340	4,763*
11	56	786	98,188
12	98	987	213,902*
12B	0	42	N/A
13	224	2,671	148,482*

Sources	Volume Used this Month (m <sup>3</sup> )	Cumulative Volume Used this WIR Season (m <sup>3</sup> )	Available Capacity (m <sup>3</sup> )
13A	0	84	15,112
13B	0	196	N/A
14	672	4,620	214,666*
14A	0	42	359,780
14B	0	84	13,005*
14C	224	1,523	9,151*
15	126	1,446	237,327
16	157	794	447,685
16B	0	140	6,297*
17	287	833	1,239,167
18	903	2,136	128,478
18B	175	175	N/A
19	3,019	3,208	9,827
19A	56	56	9,193*
19B	14	14	N/A
2	0	1,098	53,507
20	2,526	2,526	1,060,454
20A	329	329	12,160*
21	1,607	2,526	54,345*
21A	49	49	4,106*
22	743	743	91,867*
23	2,396	2,396	39,637
24	2,138	2,415	59,995
25	1,382	2,565	80,746
26	23	23	6,992
27	1,081	3,056	7,438*
28	1,288	2,750	23,951
28A	148	1,218	4,009*
29	296	1,810	211,044
2A	0	498	8,600*
2B	0	228	10,549*
2C	56	786	8,149*
3	182	2,317	79,375
30	929	3,865	56,674
32	3,465	8,539	868,067
32 Pond 1	0	273	2,766*

Sources	Volume Used this Month (m <sup>3</sup> )	Cumulative Volume Used this WIR Season (m <sup>3</sup> )	Available Capacity (m <sup>3</sup> )
34 (Bathurst Lake)	5,084	12,476	32,516,148
3A	0	42	5,997*
4	154	1,416	19,379
4A	0	427	74,890*
4B	0	56	N/A
5	203	775	22,275*
5A	0	195	396,107*
6	462	1,674	25,362
7	0	98	424,972
8	882	2,445	113,798
8A	0	1,779	5,502*
8B	0	1,224	5,651*
9	1,176	2,282	53,703
9A	0	298	3,892*
9B	0	1,285	6,927*
Goose Lake	0	122	608,700*
No Name Lake	0	252	3,227*
Small Lake	0	126	N/A
Waterfall Lake	0	154	N/A
Unknown	91	173	N/A
<b>Total Freshwater Use</b>	<b>33,065</b>	<b>89,723</b>	

**Notes:**

\*Available capacities of these lakes were calculated based on lake surface area multiplied by 10 cm. Capacity shown for Goose Lake is the total allowable water use for all purposes as defined in the Licence.

N/A = available capacities could not be calculated because the location and surface area of the waterbody could not be verified.

For all other lakes available capacity was that outlined in the WIR Technical Memorandum.

No reclaim water was obtained from these facilities for process Water at the process plant or alternative treatment system this month. These facilities have not yet been commissioned.

A total of 1,751 m<sup>3</sup> of treated effluent was released from the Goose Sewage Treatment Plan (STP) to the tundra this month. Estimated volumes of greywater released this month are presented in Table 2-3. Goose Claims Group greywater discharge is undertaken under Water Licence 2BE-GOO2028.

The volume of compressed, dewatered sludge removed from the Goose STP is estimated to be less than 30 m<sup>3</sup> this month.

No effluent was discharged from Landfarms, Fuel Tank Farms or Fuel Storage Facilities this month.

The Primary Water Pond, Tailings Storage Facility, and Tailings Facilities have not yet been constructed.

No effluent was discharged at the Final Discharge Point this month. Per Part F, Item 16 of the Licence, an Effluent Discharge Plan will be submitted to the Board at least 120 days prior to discharge of Effluent subject to Part F, Item 21 of the Licence.

**Table 2-3 Estimated Volumes of Greywater Released this Month**

Locations	Volume (m <sup>3</sup> )	Destination
MLA	551	Tundra
MLA Forward Camp	89	Tundra
Goose Forward Camp	42	Tundra

**Notes:**

Greywater discharge at the MLA was estimated as 80% of water desalinated. Volumes of water desalinated were not available for March; therefore, volumes of water desalinated were estimated as the average volume desalinated per person over the remainder of the year multiplied by the number of people occupying the MLA Accommodations Complex each day.

Greywater discharge estimated as 100% of freshwater supplied to the MLA Forward Camp and the Goose Forward Camp.

## 2.3 PART I, Item 9

The Licensee shall measure and record the following on a Monthly basis in tonnes:

- a. Quantity of Waste placed within the Landfill(s) and Landfarm(s);
- b. Quantity of Waste Rock placed into, and total stored at, each Waste Storage Area and other locations approved by the Board;
- c. Dry tonnes of tailings placed into, and stored at, the Tailings Storage Facility and Tailings Facilities; and
- d. Quantity of ore stockpiled and ore processed through the processing plant.

### Compliance Status:

The following is to comply with Part I, Item 9(a, b, c, and d). Non-hazardous wastes identified as being suitable for landfilling on site per the Project's Landfill and Waste Management Plan were sent to the Echo Pit Waste Rock Storage Area (WRSA) landfill. Loads to the Echo Pit WRSA landfill were inadvertently not tracked in 2024 and are estimated as 20 m<sup>3</sup> per day (~608 m<sup>3</sup>/month). No material was placed in either the Goose (BRP-51) or MLA (BRP-44) landfarm this month; these facilities are not yet commissioned.

No waste rock was placed in WRSAs this month.

No tailings were placed into and stored at the Tailings Storage Facility and Tailings Facilities this month; these facilities have not yet been constructed.

There was no ore stockpiled or processed through the process plant this month.

## 2.4 PART I, Item 20

No additional monitoring has been imposed by the Inspector this month.

### 3. SCHEDULE I REQUIREMENTS

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The following is to comply with Part 1, Item 4, which requires the Licensee to undertake the Monitoring Program provided in Table 1 and Table 2 of Schedule I.

A summary of monitoring activities completed this month to fulfill the requirements outlined in the Tables of Schedule I of the Licence is provided below. Non-compliances are identified where applicable.

No site seepage or runoff was observed this month. The MLA used seawater from Bathurst Inlet and greywater from the MLA was discharged to the tundra. The Goose STP was in use, with treated sewage effluent released to the tundra. Freshwater was withdrawn under this Licence from Goose Lake and WIR proximal water bodies for construction of the WIR. Goose Claims Group water use and waste discharge is undertaken under Water Licence 2BE-GOO2028.

#### 3.1 BRP-17 Goose Property Sewage Treatment Plant

The Goose Property STP discharges treated effluent to land in a manner to allow further over land treatment of the effluent prior to entering the freshwater receiving environment. The volume of treated sewage effluent discharged to the tundra this month is reported in Section 2.2. No flow or water was available for sampling at sampling location BRP-17 due to frozen conditions and the relatively small daily volumes discharged.

#### 3.2 BRP-24 Goose Lake Intake

The total volume withdrawn from Goose Lake under this Licence this month is reported in Section 2.2.

#### 3.3 BRP-42 MLA Greywater

The volume of greywater discharged at the MLA is reported in Section 2.2. No water was available for sampling at the sampling location downstream of the discharge point (BRP-42), likely due to frozen conditions combined with the limited volume of discharge.

#### 3.4 BRP-I Interconnection Winter Ice Road Proximal Water Bodies

The volume of water withdrawn from each lake for the WIR and WIR service/emergency camps is reported in Section 2.2.