Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 115 / 002
NWB File: 2AM-BRP1831

October 23, 2026

via email at: richard.dwyer@nwb-oen.ca

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer:

RE: 2AM-BRP1831 – B2Gold Corporation – Back River Gold Mine Project – Modification Request – Back River Gold Mine Project WRMP & WMP: Comment Responses #2

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) by B2Gold Corporation ("the Proponent") regarding the above-mentioned response to comments.

ECCC provides expert information and knowledge to project assessments on subjects within the department's mandate and within federal jurisdiction, including greenhouse gas emissions and climate change, air quality, water quality and quantity, migratory birds, species at risk, environmental emergencies preparedness and response, and climate and meteorology. This work includes reviewing proponents' characterization of environmental effects and proposed mitigation measures, and providing information and knowledge to decision-makers on activities needed to mitigate these environmental effects within federal jurisdiction. Any comments received from ECCC in this context do not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

ECCC-1. Waste Management and Monitoring

Comment:

The Proponent has committed to include the requested information in a subsequent Water Management Plan update.

ECCC has no follow-up to this response but wishes to highlight that accurate understanding of water flow from mine-impacted areas is essential to ensuring that mine-impacted runoff and seepage is collected, monitored, and managed in such a way that it does not result in uncontrolled flow to the receiving environment.

Recommendation:

n/a

ECCC-2. Scaling of Groundwater Predictions

Comment:

The Proponent has provided additional information on the methodology used to scale previously completed groundwater modelling results to estimate groundwater inflows for the proposed modification.

The use of scaling factors reduces confidence in the updated groundwater predictions. Scaling introduces additional uncertainty in predictions of groundwater inflows and concentrations since results may be extrapolated beyond the conditions for which the model was originally calibrated and validated. Accurate understanding of the saline groundwater volumes is essential to water management planning and ensuring that adequate storage capacity is available.

Recommendation:

ECCC supports the Proponent's commitment to complete further calibration and refinement of the groundwater model as additional information becomes available. ECCC recommends that this work be completed as soon as practicable once sufficient data have been collected, and that the Proponent provide a timeline for when the update may be reasonably completed.

ECCC-4 and ECCC-6. Overburden Storage Areas and Catchments
(note: the Proponent's response to ECCC-6 referred to ECCC-4)

Part 4-1

Comment:

In the response provided, the Proponent refers to geochemical testing that has indicated 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)". ECCC notes that although the overburden may be classified as NPAG, it may still represent a source of contaminant loading to the receiving environment. Geochemical weathering and contact with precipitation can mobilize contaminants in the materials under neutral conditions. The absence of acid rock drainage does not eliminate the possibility of surface water quality impacts from long-term storage of the materials.

In addition, the Proponent has stated that any runoff/seepage from these piles will report to the toe of the stockpiles where it is expected to temporarily accumulate in "natural depressions." The Proponent states that these depressions will provide retention time for settlement of total suspended solids and will be used for water quality sampling and testing. However, key

information on these features including location, flow paths, storage capacity and overflow potential has not been provided. As a result, it remains uncertain whether these depressions would be sufficient to collect and manage all seepage and runoff from the stockpiles.

The Proponent has briefly outlined some adaptive management strategies that could be implemented if water quality is found to be unsuitable for discharge to the environment. However, Schedule I, Table 2 (Monitoring Program) of the water licence does not include any monitoring associated with overburden storage piles and Part F of the licence (Conditions Applying to Waste Disposal and Management) does not include any discharge criteria for overburden storage. As a result, it is unclear what criteria the Proponent would use to determine suitability for discharge to the environment.

Recommendation:

ECCC continues to highlight uncertainty regarding whether overburden runoff and seepage will be adequately collected, monitored and managed and notes that existing monitoring requirements outlined in the current licence may not be sufficient to address this risk. ECCC recommends that all runoff from the overburden storage area is collected, controlled, and managed such that it does not enter the receiving environment. ECCC recommends that additional monitoring stations are established in Schedule I (Table 2) of the water licence to monitor the quality and quantity of the runoff collected from the overburden storage areas. If runoff from the overburden storage areas is to be discharged to the receiving environment, a final discharge point, along with associated effluent quality criteria, should be established.

Parts 4-2 and 4-3

Comment:

In the response provided, the Proponent states that the overburden stockpiles were not included in the water and load balance because they were not anticipated to contribute to the site water inventory or require storage in the water management ponds. However, the Proponent has committed to develop a sensitivity scenario within the Water and Load Balance to assess how overburden piles could be managed using the water management ponds.

Recommendation:

ECCC supports the inclusion of overburden stockpiles into the Water and Load Balance assessment. ECCC recommends that the Proponent provide a clear timeline for completing this sensitivity analysis and incorporating any resulting updates in the Water and Load Balance.

ECCC-5. Changes to Inflow Rates and Treatment Volumes

Comment:

The Proponent has responded to ECCC's comment and provided the requested information and a more complete summary of the changes and implications of the proposed modification. ECCC has no follow-up questions.

Recommendation:

n/a

If you need more information, please contact Erik Allen at erik.allen@ec.gc.ca.

Sincerely,

Allen, Erik

Digitally signed by
Allen, Erik
Date: 2026.10.23
10:16:12 -04'00'

Erik Allen
Senior Environmental Assessment Officer

cc: Brian Asher, A/Manager, Environmental Assessment, Prairie Northern Region