P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

Kugluktuk

Bathurst Inlet
Kingaok

Bay Chimo
Umingmaktok

Cambridge Bay
Ikaluktutiak

Gjoa Haven
Okhoktok

Taloyoak

Kugaaruk

Richard Dwyer

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

June 30th, 2026

**Re: Review of B2Gold Nunavut 2025 Annual report for Back River Project.**

Dear Richard Dwyer, the KIA has reviewed B2Gold Nunavut's 2025 Annual Report for the Back River project to the NWB.

## 1) Compliance Monitoring:

The KIA's Framework Agreement (FA) and Inuit Impact and Benefits Agreement (IIBA) with B2Gold Nunavut that cover terms and conditions of NIRB Project Certificate 007 and the NWB Type A water license.

The Framework Agreement is a confidential agreement between KIA and B2Gold Nunavut that supersedes and replaces all previous contractual arrangements between both parties. Section 3.1 of the FA covers Terms and conditions of land use license and reporting.

Appendix A of Section 3.1 of the Framework Agreement specifies the details of annual reporting by B2Gold Nunavut to the KIA, which is summarized as follows:

B2Gold Nunavut is to provide an annual report to KIA providing details of its operations under any land use License, Advanced Exploration Lease and/or Commercial Lease covering the location and operations area of lands affected, and the nature of facilities and equipment at these sites. In addition, B2Gold Nunavut is to provide details of progressive reclamation or closure activities undertaken during the year and details of all permits, licenses, and authorizations from other regulatory bodies or agencies that are required for operations.

This annual report is to provide information on:

- Ground disturbances including land use activities for camps, infrastructure, equipment, winter roads and trails.
- Fuel and Chemical storage including Chemicals of Potential Concern inventory (COPC), fuel and chemical usage, and spill records.

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

- Drilling programs, methods, locations, spills of fluids or muds and the amount of water discharge.
- Water use and effects on water.
- Wildlife interaction, data logs, and summaries.
- Waste disposal, waste management practices, inventory of waste on site, and inventory of hazardous materials or non-combustible waste removed from site.
- Closure and reclamation progress associated with waste management, drilling, and ground disturbance along with associated costs.
- General information on annual inspection activities by staff and other agencies and their results, community consultations, future exploration work plans, submissions to NIRB, NWB, or NPC or other regulators related to mining activity, archaeological sites and burial grounds, and any incidents of storage or possession of alcohol and drugs on site.

B2Gold Nunavut has provided the KIA with the **Back River Project 2025Annual Report for KIA Framework Agreement** in accordance with Appendix A to Schedule 3.1 of the Framework Agreement. This report is separate from the **Back River 2025 Annual Report to the NWB**.

**Compliance Status**

**2) Effects of Monitoring:**

a) **Whether the conclusions reached by B2Gold Nunavut in the Back River 2025 Annual Report to the NWB are Valid.**

KIA's consultants in the areas of wildlife, aquatic sciences, and geotechnical engineering reviewed the Back River Project 2025 Annual Report for Water Licence 2AM-BRP1831 and the following documents:

- Appendix A – Annual Geotechnical Inspection Report.
- Appendix B – Ground Thermal Monitoring Memorandum.
- Appendix C – Winter Ice Road Water Use.
- Appendix D – Geochemical Monitoring Results.
- Appendix E – Water Quality Analytical Results.
- Appendix F – Waste Disposal.
- Appendix G – Reportable Spills Record.
- Appendix H – Monitoring Program Activity Overview by Station.
- Appendix I – Aquatic Effects Monitoring Report
- Appendix J – Ground Thermal Monitoring Report.
- Appendix K – Engagement Record.

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

In 2025, B2Gold Nunavut continued construction activities at the site that focused on building the mine site. These being ongoing construction of the plant site, mill, and truck shop. Completion of Phase 2 of the accommodations complex expanding the camp to 600 beds. Construction of the primary pond, completion of Echo Pit pre-stripping and the commencement of mining.

Overall, our consultants find B2Gold Nunavut's conclusions in the 2025 Annual Report to the NWB, and the key Project activities and reporting requirements associated with the transition into commercial operation to be valid. However, the review identified several items where clarification or supporting information is required to confirm conformance with specific license requirements.

b) **Any areas of significance requiring further supporting information or changes to the monitoring program, which may be required.**

## Back River Project 2025 Annual Report to NWB

### KIA-NWB-01

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-01 |
| **Subject/Topic** | Water Management Plan Updates and Adaptive Management Triggers |
| **References** | 2025 Annual Report – Water Management; Water Management Plan; Previous KIA 2024 Annual Report Review Comment KIA-NIRB-02 |
| **Summary** | Previous KIA comments identified outstanding Water Management Plan items related to infrastructure updates and definition of construction water management triggers. With the Project transitioning from construction into operations during 2025, confirmation that the Water Management Plan reflects current site conditions is recommended to be included in the annual reporting discussion. |
| **Detailed Review Comment** | The 2025 Annual Report identifies significant changes in site activities, including completion of the process plant and mill, commencement of commercial production, completion of Echo Pit mining, conversion of Echo Pit to a tailings facility, and continued development of water management infrastructure. Previous KIA comments identified that some Water Management Plan information required clarification, including infrastructure descriptions and water quality response triggers. As the Project transitions into operations, water management assumptions, infrastructure capacity, monitoring requirements, and adaptive management triggers should be reviewed against current operating conditions. |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| **Recommendation/ Request** | Provide confirmation that the Water Management Plan has been updated to reflect current operational conditions, including updated infrastructure, water routing assumptions, pond capacities, and clearly defined adaptive management triggers. |
| **Importance** | Moderate |

## KIA-NWB-02

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-02 |
| **Subject/Topic** | 2025 Water and Load Balance |
| **References** | Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Appendix A: Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection |
| **Summary** | Annual geotechnical inspection report provided does not comply with all items requested under the water licence. |
| **Detailed Review Comment** | Part I, Condition 10 of the Licence 2AM-BRP1831 stipulates the requirement of an annual geotechnical inspection addressing a defined list, consisting of 16 items, including Open Pit walls (Item e), Waste Rock Storage Areas (Item g), and Underground mine and underground groundwater (Items m & n). The geotechnical inspection report provided (Appendix A) explicitly excludes, by its own scope statements:<br>• Open-pit walls (Echo, Umwelt);<br>• Waste Rock Storage Areas (only "general comments passed to site staff");<br>• Underground mine and underground groundwater;<br>and defers the Primary Pond Dam Safety Inspection to 2026. |
| **Recommendation/ Request** | B2Gold Nunavut is requested to provide an updated annual geotechnical inspection report, or supplementary documentation, that addresses all applicable items required under Part I, Condition 10 of Licence 2AM-BRP1831, including open-pit walls, Waste Rock Storage Areas, the underground mine, and underground groundwater. |
| **Importance** | Moderate |

## KIA-NWB-03

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-03 |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| **Subject/Topic** | 2025 Water and Load Balance |
| **References** | Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.2 |
| **Summary** | An annual comparison of measured groundwater inflow rates to model predictions, or reasoning for its absence, was not included. |
| **Detailed Review Comment** | Schedule B, Condition 5 states a summary update to the water and load balance results, if any, including an annual comparison of measured groundwater inflow rates to model predictions should be provided. Section 2.2 of the Annual Report points to the 2022 Water and Load Balance Model submission, with no annual comparison of measured groundwater inflow rates to model predictions. With underground workings now active, measured inflow data should become available and be compared to the model. |
| **Recommendation/ Request** | Comparison of groundwater inflow data into underground working with model predictions, or justification why those data are not available for 2025. |
| **Importance** | Low |

## KIA-NWB-04

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-04 |
| **Subject/Topic** | Ground Thermal Monitoring and Hydrogeologic Conditions |
| **References** | 2025 Annual Report; 2025 Site-wide Ground Thermal Monitoring Memorandum; Ground Thermal Monitoring Plan |
| **Summary** | Ground thermal monitoring information was provided in 2025. Additional synthesis of monitoring results with hydrogeologic conditions would improve interpretation of long-term performance. |
| **Detailed Review Comment** | The 2025 Annual Report includes the Site-wide Ground Thermal Monitoring Memorandum and Ground Thermal Monitoring Plan, addressing previous uncertainty regarding geotechnical and thermal monitoring documentation. Ground thermal conditions influence seepage pathways, groundwater movement, and performance of mine infrastructure constructed in permafrost environments. Integration of thermal monitoring results with hydrogeologic observations would improve confirmation that site conditions remain consistent with design assumptions. |
| **Recommendation/ Request** | Provide continued interpretation of ground thermal monitoring results in relation to potential changes in groundwater pathways, seepage conditions, and water management assumptions. |
| **Importance** | Moderate |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

## KIA-NWB-05

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-05 |
| **Subject/Topic** | Winter Ice Road Water Withdrawal Tracking |
| **References** | 2025 Annual Report – Water Use |
| **Summary** | Winter Ice Road water withdrawals were generally within approved limits. However, one lake withdrawal capacity was exceeded, and some withdrawals occurred from unidentified sources. |
| **Detailed Review Comment** | The 2025 Annual Report indicates that Winter Ice Road water use was generally within Licence requirements and calculated withdrawal capacities. However, Lake 997 withdrawal capacity was exceeded and approximately 1,900 $m^3$ of water was withdrawn from unidentified sources. Although corrective actions were implemented, accurate tracking of winter water withdrawals is important to confirm protection of lake water levels and compliance with approved withdrawal assumptions. |
| **Recommendation/ Request** | Provide a summary of corrective actions implemented for the 2025/2026 Winter Ice Road season and confirm that procedures are in place to verify withdrawal locations and approved volumes. |
| **Importance** | Moderate |

## KIA-NWB-06

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-06 |
| **Subject/Topic** | 2025 Geochemical Testing |
| **References** | Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.3 and Appendix D |
| **Summary** | In 2025, 1,658 samples were collected from production blast-hole drilling and submitted for geochemical testing to determine if the sample was potentially acid-generating (PAG) or non acid-generating (NAG).<br>Results were presented in Appendix D, Table D-1, including classification of the results as PAG or NAG, per the site-specific criteria described in Section 2.3.<br>As-built volumes of monthly quantities of NAG and PAG waste rock used in construction and placed in Waste Rock Storage Areas were presented in Appendix D, Tables D-2 to D-5. |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | No results for metals related to the production blast-hole drilling samples were provided. |
| **Detailed Review Comment** | Schedule B, Condition 6(b) of Licence 2AM-BRP1831 stipulates that the Annual Report shall include geochemical monitoring results, including "…As-built volumes of Waste Rock used in construction and placed in the Waste Rock Storage Areas with estimated balance of acid generation to acid neutralization capacity in a given sample, as well as **metal toxicity**".<br>In the statement of compliance for Schedule B, Condition 6(e), Section 2.3 of the Annual Report states that "only rock classified as NAG and non-ML [metal leaching] is used for construction".<br>It is not clear how the samples were determined to be non-ML, or if any metals testing (to assess 'metal toxicity') has been completed on the 2025 samples. |
| **Recommendation/ Request** | Details related to the determination of samples as being non-ML are requested.<br>Data associated with an assessment of a samples metal toxicity should be included in annual reporting. It is noted that similar review comments were provided in relation to the 2023 and 2024 annual reports (RainCoast, April 2024; March 2025).<br>Details of the sulphur testing and QA/QC protocols followed by B2Gold's in-house lab are requested. |
| **Importance** | Moderate |

## KIA-NWB-07

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-07 |
| **Subject/Topic** | Run-off, Contact Water, and Treatment System Performance |
| **References** | 2025 Annual Report – Regulatory Compliance; Water Quality Monitoring Results; Previous KIA Review Comment KIA-NIRB-01 |
| **Summary** | Previous concerns regarding treatment system performance have largely been addressed and continued reporting of water treatment and run-off management effectiveness is recommended to be continued. |
| **Detailed Review Comment** | The 2025 Annual Report provides additional information regarding water quality monitoring, including run-off, containment areas, dewatering discharge, and treatment systems. Some water quality exceedances occurred during freshet conditions, including low pH and one elevated TSS result. Corrective actions were implemented and |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | subsequent monitoring indicated improved conditions. |
| **Recommendation/ Request** | The monitoring and mitigation actions were well received. Continue to provide annual summaries of water treatment and run-off management performance, including exceedances, corrective actions, and verification monitoring results. |
| **Importance** | Low |

## KIA-NWB-08

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-08 |
| **Subject/Topic** | Goose Lake Discharge (BRP-01) |
| **References** | Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.6.3 and Appendix E |
| **Summary** | In 2025, dewatering at Goose Lake occurred between July 12 to October 5. The discharge of effluent from lake dewatering into Goose Lake is monitored at station BRP-01. Eight samples were collected at BRP-01 in 2025 and compared to effluent quality limits outlined in Part D of Licence 2AM-BRP1831.<br>The results of the eight samples are tabulated in Table E-1e of the annual report. |
| **Detailed Review Comment** | Schedule I of Licence 2AM-BRP1831 describes the parameters and frequencies that stations shall be monitored, in accordance with the mine phase. The Goose Lake Discharge station (BRP-01) shall be monitored **weekly during dewatering** for parameters included in Group Codes A (Field Chemistry), B (Flow), and G (*MDMER* deleterious substances). Monitoring for other Group Codes is stipulated to occur at alternate frequencies.<br>Dewatering at Goose Lake in 2025 occurred over a period of approximately 12 weeks; however, only eight samples were collected at BRP-01 in 2025 and generally analyzed for parameters in Group Codes A and G. The reason for sample collection occurring at a lower frequency than denoted in Licence 2AM-BRP1831 was not included in the Annual Report. For the BRP-01 sample collected 2025-07-20, Radium 226 was not reported, which is one of the required analytes within the Group Code G parameters.<br>Further, flow data should be collected at the Goose Lake Discharge |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | station, per Schedule I of Licence 2AM-BRP1931 (i.e., per Group Code B in Schedule I of Licence 2AM-BRP1831). Volumes of water pumped *from* Goose Lake are reported in Section 2.2 of the Annual Report, which is described as being continuously metered and reported in monthly increments. However, quantities of *effluent* at the Goose Lake Discharge station could not be located in the Annual Report.<br>In addition to being a monitoring requirement per Licence 2AM-BRP1931, flow data collected at BRP-01 will allow for loading assessments to be completed in the future, as necessary. |
| **Recommendation/ Request** | Explanation for why Station BRP-01 was not monitored at the weekly frequency (for Codes A, B and G; per Table I in Schedule I of Licence 2AM-BRP1831) should be included in the Annual Report. Flow monitoring at BRP-01 should be included in the Annual Report. |
| **Importance** | Moderate |

## KIA-NWB-09

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-09 |
| **Subject/Topic** | Treated Sewage Treatment Plant greywater discharge. |
| **References** | 2025 Annual Report for Water Licence 2AM-BRP1831. Page 23, 30. |
| **Summary** | Discharge of 49,996 $m^3$ of treated sewage effluent was discharged from the Goose Sewage Treatment Plant to the tundra plus an additional 8,064 $m^3$ of greywater from the MLA Accommodations Complex. Effluent criteria were met but no mention is made of discharge volume per discharge event. |
| **Detailed Review Comment** | Erosion of tundra is an environmental concern. The discharge of 49,996 discharged from the Goose STP and 8,064 $m^3$ discharged from the MLA Accommodations Complex to the tundra could have caused erosion at the discharge points and beyond. Soil erosion in tundra can cause loss of vegetation, increased thawing of permafrost, degraded habitats and alteration of the nutrient cycle. No information is provided on the discharge method used, i.e. whether a flow dissipator was deployed or what the discharge flow was. |
| **Recommendation/ Request** | Discharge rate and methodology (e.g., single discharge pipe, passive overflow, etc.) should be included in the reporting. If this information was not recorded during 2025, it should be included in all subsequent reports. Photos should also be provided of discharge areas to illustrate any effects. |
| **Importance** | Moderate |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

## KIA-NWB-10

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-10 |
| **Subject/Topic** | Waste Disposal |
| **References** | Back River Project 2025 Annual Report for Water Licence 2AM-BRP1831 (March 2026)<br>• Appendix F – Waste Disposal, Tables F-1 through F-5<br>Section 2.3, page 11 |
| **Summary** | Section 2.3 (Schedule B – Waste) of the 2025 annual report summarizes or directs the reader to the tables of waste disposal provided in Appendix F. Appendix F contains tables of backhauled waste, incinerator and open burn log, and volumes of waste landfilled. |
| **Detailed Review Comment** | Tables F-1 and F-2 – It is unclear what the column headers mean. For example, for the top row dated 06-12-2025, "Description" is Compressed Gas – Fire Extinguishers, "Quantity Shipped" is 295, "Unit of Measure" is Kg, "Number" is 3, "No, Containers (code)" is 59, and "Container Type" is Each. Does this mean that this load included 295 kg of fire extinguishers packaged in three containers of type Each? In addition, the acronym "UN" is not included in the list of Acronyms and Abbreviations on page xi, and "No, Containers (code)" in Table F-1 is undefined. A table caption or additional table notes to define column headers would be helpful, as would repeating the table header row when a table breaks across multiple pages.<br>Schedule B, Condition 10 includes reporting of incinerator test results including the efficiency of the incinerator. Section 2.3, page 11 states that tests on incinerator efficiency has not yet been tested. The report does not indicate when a test will occur to fully meet this Condition. |
| **Recommendation/ Request** | The KIA Requests the following:<br>• Conduct the incinerator test and report on results as soon as possible to remain in compliance with condition 10. The associated condition requires that test results be included in annual reporting and that: "Reporting of Incinerator test results including the materials burned and the efficiency of the Incinerator in relation to effects on Water and the potential Deposit of Waste into Water".<br>• Include more detailed descriptions in tables to define what column headers mean and include information on how to read the table such that a person without access to the report text can still correctly interpret the table. |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | • Ensure that all acronyms are included in the list of Acronyms and Abbreviations and, ideally, defined at their first use in the text or Appendix.<br><br>Repeat table header rows when a table breaks across multiple pages. |
| **Importance** | Moderate-High |

## KIA-NWB-11

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-11 |
| **Subject/Topic** | Spill cleanup. |
| **References** | 2025 Annual Report for Water Licence 2AM-BRP1831, Page 24 and Appendix G. |
| **Summary** | Reportable spills were cleaned up, and the spill material was scheduled to be treated in the spring. No information is provided to indicate if this action was completed. |
| **Detailed Review Comment** | At least three of the reportable spills were cleaned up and the contaminated material contained was scheduled to be melted down and treated in the spring. Presumably, this treatment was to be completed in the spring of 2025, but no follow-up is provided about whether this action was taken. |
| **Recommendation/ Request** | Information should be provided on whether the action to treat spilled material in the spring was completed in order to confirm that treatment loop was completed. |
| **Importance** | Low |

## KIA-NWB-12

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-12 |
| **Subject/Topic** | 2025 Aquatic Effects Management Plan (AEMP) and Additional Investigative Sampling Program |
| **References** | B2Gold Back River Project - 2025 Aquatic Effects Management Plan Report (WSP Canada Inc., March 16, 2026) – Appendix I of Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831 |
| **Summary** | The 2025 AEMP results indicate water quality at Goose Lake has changed compared to baseline (i.e., prior to August 2023) and compared to the reference area (i.e., Reference B Lake). The 2025 results indicate many parameters of interest (POI) with median concentrations that were greater than the upper bound of pre- |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | development ranges and were identified using a Before-After Control-Impact (BACI) statistical analysis (i.e., to indicate weather concentrations had changed over time relative to the baseline period and reference area). For some POIs (e.g., total cobalt, nitrite), samples collected in 2025 at Goose Lake West Bay and/or Goose Lake Central Basin had concentrations above the AEMP benchmark. |
| **Detailed Review Comment** | An additional investigative sampling program was carried out in 2025 to better understand potential sources/cause of POIs with elevated concentrations. The results of the investigative sampling program were included as an appendix to the 2025 AEMP.<br>The results of the additional investigative sampling program suggested two main sources may be influencing water quality at Goose Lake, including (1) flows from the Echo Lake area, and (2) flows from the Llama Lake and Umwelt Lake area. The additional investigation program used parameter concentrations as an indicator of potential sources. However, the quantity of flow entering Goose Lake from these sources was not measured nor described. |
| **Recommendation/ Request** | Two mitigation options were recommended in the 2025 AEMP Report related to seepage and runoff from Site into Goose Lake, including suggested improvements to water management and dust control at site to minimize the potential for impacted water to report to Goose Lake, and a comprehensive monitoring program. BGC agrees with both recommendations. BGC additionally recommends that the flows entering Goose Lake from the Echo lake area and the llama Lake and Umwelt Lake area be measured/quantified. |
| **Importance** | Moderate |

## KIA-NWB-13

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-13 |
| **Subject/Topic** | Water Quality Trends and Hydrologic Source Attribution |
| **References** | 2025 Aquatic Effects Monitoring Program Report; 2025 Annual Report – Water Management |
| **Summary** | Increasing trends in several water quality parameters were identified. Additional interpretation of contributing water sources would improve understanding of potential Project-related influences. |
| **Detailed Review Comment** | The 2025 AEMP identified increasing trends for several water quality parameters, including changes observed in Goose Lake. While ongoing monitoring has identified these trends, additional interpretation of hydrologic source contributions would improve understanding of potential causes. Changes in water quality may be influenced by |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | multiple contributing sources, including natural run-off variability, contact water management, seepage contributions, dewatering activities, and operational changes. |
| **Recommendation/ Request** | Provide additional interpretation of potential water source contributions influencing observed water quality trends, including consideration of run-off volumes, contact water sources, seepage monitoring, and operational water management activities. |
| **Importance** | Moderate |

## KIA-NWB-14

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-14 |
| **Subject/Topic** | Fish and Fish Habitat (Phytoplankton) |
| **References** | B2Gold Back River Project – 2025 Aquatic Effects Management Plan Report<br>Appendix C – 2025 Chlorophyll a Data Analysis<br>Appendix E – 2025 Water Quality – Time Series Plots<br>page E-3 |
| **Summary** | Results of comparison study reported that chlorophyll a concentrations and total volume filtered generated using the 1.2 µm GF/C filters were higher than when using the 0.45 µm GF/C filters. A linear relationship was found between chlorophyll a concentration between methods. A time series was presented for chlorophyll a concentration using only results from the 1.2 µm GF/C filters and the converted 0.45 µm GF/C filters (Appendix E).Cited previous report (WSP 2025) lacks the scientific rationale for switching the data collection method. |
| **Detailed Review Comment** | Data collection for chlorophyll a was completed using 0.45 µm GF/C filters in 2011, 2012, 2013, 2018, 2021, and 2024. A conversion factor was calculated using the linear relationship between methods and previous 0.45 µm GF/C filters results were converted using this conversion factor. Efficiencies were noted when using the 1.2 µm GF/C filters. Trends were not discussed in full; chlorophyll a has an increasing trend from 2017/2018. |
| **Recommendation/ Request** | The report reports on the efficiency of using the 1.2 µm GF/C filters opposed to the 0.45 µm GF/C filters but does not provide information on the scientific basis for switching the methodology and the accuracy of each method. Provide scientific rationale and/or references for changing data collection method during mid-BACI study design and provide comparisons or information on the accuracy of the two methods. |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | Provide explanations and implications for the increases in chlorophyll a. |
| **Importance** | Moderate |

## KIA-NWB-15

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-15 |
| **Subject/Topic** | Fish Habitat (water quality) |
| **References** | B2Gold Back River Project – 2025 Aquatic Effects Management Plan Report<br>• Executive Summary, Section 5.3., 5.3.1.2, 5.3.2.2, Section 5.5.3<br>Appendix E – 2025 Water Quality – Time Series Plots<br>Appendix F – 2025 Water Quality Investigative Sampling Section F3 |
| **Summary** | While some water quality parameters were similar to 2024, increasing trends of 28 water quality parameters (page 623, 630) were observed in 2025, including some above normal ranges shown in Appendix E. Results. This is more pronounced for West Bay in many parameters.<br><br>AEMP benchmarks were exceeded for nitrite and cobalt.<br><br>Low Action Levels for aquatic life for nitrate, nitrite and total/dissolved cobalt were all exceeded.<br><br>Some explanations are provided for possible contributions, and mitigation measures are outlined. The report explained that different guidelines and benchmarks should be used for nitrite and cobalt. |
| **Detailed Review Comment** | More details are needed on the proposed benchmark for nitrite. The current benchmark is the CCME guideline for nitrite. Please explain the validity of using a new benchmark over the CCME guideline.<br><br>Additionally, the reports mention that run-off volume could play a crucial role in the exceedances and increasing trends in water quality parameter concentrations. Estimating this could be beneficial in understanding the contribution of each water source and its impact on water quality.<br><br>Water quality has changed significantly from baseline conditions and although increasing monitoring efforts are being made, additional mitigation options and approaches are also needed and should be reported (2024, 2025). |
| **Recommendation/ Request** | Provide explanations and detailed discussion for increases in water quality parameters that are outside of normal ranges and use of other |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | benchmarks different from 2025.<br><br>Please provide estimates on the run-off volumes from other water sources and provide explanations on how these may impact the water quality parameters in Goose Lake.<br><br>Please provide and consider mitigations measures and further actionable items to mitigate changes in water quality. |
| **Importance** | Moderate |

## KIA-NWB-16

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-16 |
| **Subject/Topic** | Increased concentrations of nitrate and cobalt over three years. |
| **References** | 2025 Aquatic Effects Management Plan. Appendix I. pp. 640-641 and Appendix F 2025 Water Quality Investigative Sampling P. 1376-1418. |
| **Summary** | Investigative water quality sampling was undertaken in 2025 in an effort to determine the cause of the increases in nitrate and cobalt in the West Bay of Goose Lake. |
| **Detailed Review Comment** | The 2024 AEMP reported increasing concentration for several parameter concentrations in the West Bay area of Goose Lake since September 2023. In an attempt to identify the cause of the increased concentrations an investigative sampling program was undertaken. The investigation centered on nitrate, nitrite and cobalt since Low Action Level was exceeded for these Parameters of Interest (POIs). Targeted sampling locations were selected. Several factors were identified as potential causes including:<br>• Seepage and runoff from the site<br>• Water seeping through the road<br>• Contact water could be entering the environment<br>• Contaminated soils that were not removed.<br>The report concludes by stating that without assessing both concentration and flow rate, it is difficult to accurately determine the relative contributions of each stream to changes in the lake. The report does not contemplate any mitigation measures or adaptive management plan to be implemented in order to address the increased concentrations. |
| **Recommendation/ Request** | The investigative sampling program provided valuable results, but no follow-up was provided in the write-up. If the nitrate and cobalt concentrations have been increasing over three years, rather than continuous monitoring, mitigation measures should be implemented, rather than spending additional time and resources on determining |

P.O. Box 360
Kugluktuk, NU X0B 0B0
Telephone: (867) 982-3310
Fax: (867) 982-3311
www.kitia.ca

| | |
|---|---|
| | flow rate. Alternatively, flow rate and analysis could be completed and mitigation measures implemented on the basis of the results. |
| **Importance** | High |

## KIA-NWB-17

| | |
|---|---|
| **Review Comment Number** | KIA-NWB-17 |
| **Subject/Topic** | Implementation of Mitigation Measures |
| **References** | Annual Geotechnical Inspection (AGI) Primary Observations. Table 3. Page 62. |
| **Summary** | Several recommendations were made to undertake or "consider" actions in the 2024 AGI that were carried over into the 2025 AGI as not completed. |
| **Detailed Review Comment** | Several recommendations were identified in Table 3: Summary of 2025 AGI Observations and Recommendations for the Goose Property. Several of these recommendations had also been identified in the 2024 AGI and were carried over. Recommendations included giving "consideration" to undertaking mitigative action. However, giving consideration to an action will not mitigate an effect that is already occurring. For example, long-term water conveyance through portions of the airstrip should be implemented since soft shoulder conditions may lead to substantial erosion resulting in compromising fish habitat and fish passage. |
| **Recommendation/ Request** | Explanation should be provided regarding reasons why the recommendations were not acted upon. Also, information should be provided regarding the nature of the "considerations" and if these will translate into mitigative actions and if not, provide rationale. |
| **Importance** | Medium |

Thank you.

John Roesch

John Roesch, P.Eng.

Senior Hope Bay Project Officer
Kitikmeot Inuit Association, Department of Lands and Environment

Cc Cory Barker, Interim Director, KIA, Department of Lands and Environment