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Our file *Notre référence*
12-HCAA-CA7-00007

Your file *Votre référence*
2AM-BRP1831

October 13, 2026

Subject: B2Gold Nunavut – 2027 Winter Ice Road Technical Memo

To whom it may concern,

On October 5th, 2026, the Nunavut Water Board invited parties to comment on B2Gold Nunavut's *2027 Winter Ice Road Technical Memo* for the Back River Mine. The Fish and Fish Habitat Program (FFHPP) of Fisheries and Oceans Canada (DFO) appreciates the opportunity to review the document in accordance with our mandate and has the following comments.

DFO Comment #1 – Winter Water Withdrawal:

Excessive amounts of water withdrawn from ice-covered waterbodies can impact fish through oxygen depletion, loss of over-wintering habitat and/or reductions in littoral habitat. B2Gold Nunavut have addressed this concern sufficiently by adhering to the appended *Winter Ice Road Water Withdrawal Evaluation – Back River Project (2018).* This evaluation is protective of fish habitat by following the upper threshold of under-ice water volume loss of 10% as stipulated in the *DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut* (2010). The methods in the 2018 evaluation also improve upon the protocol by accounting for waterbodies with a lower surface area to water volume ratio where a 10% loss in under-ice volume would result in a comparatively higher amount of littoral habitat loss (potentially impacting incubating eggs). The memo also stipulates that water withdrawal from lakes will have to maintain a minimum of 2-meters water depth below ice to conform with the DFO protocol.

An additional mitigation within the DFO protocol, not mentioned in the memo, is to place water intakes in the deeper areas of waterbodies, away from the littoral zone, to avoid deoxygenating oxygen-rich waters near the surface. B2Gold Nunavut should also follow this aspect of the protocol where possible. DFO recommends this mitigation measure be added into the memo for future submissions.

DFO Comment #2 – End of Pipe Fish Screen:

The technical memo references *DFO Code of Practice: Water Intake Screens for the Protection of Fish*, a guidance document which applies to withdrawing water from fish-bearing waters. Please note that this Code of Practice is out of date and has been replaced by *DFO Interim Standard: Water intake end-of-pipe fish screens*. Please update the memo with this reference, where applicable, and adhere to all relevant avoidance and mitigation measures described within.

DFO Comment #3 – Lake 997:

As reported previously by B2Gold Nunavut, Lake 997 winter water withdrawals exceeded thresholds in both the previous two winter ice road seasons. The *DFO Protocol for Winter Water Withdrawal from Ice-Covered Waterbodies in the Northwest Territories and Nunavut* stipulates mitigations for protecting fish and fish habitat, most notably the maximum withdrawal of 10% of an ice-covered waterbody's water volume. However, B2Gold Nunavut withdrew 44.8% (2024/2025) and 16.5% (2025/2026) from Lake 997 in the last two years. Due to these exceedances in water withdrawal for the two past years consecutively, it is assumed the lake has not yet returned to its natural (pre-exceedance) condition.

B2Gold Nunavut and DFO have been working collaboratively to address this situation. In the open-water season of 2026, B2Gold Nunavut collected eDNA samples from Lake 997 and submitted them for lab analysis to determine whether this lake is fish-bearing or not. The results have not yet been presented to DFO. If the results confirm fish presence, then an assessment of any harmful alteration, disruption, or destruction of fish habitat and death of fish will need to be completed, potentially followed by enforcement actions from DFO's Conservation and Protection program. Assuming the lake is fish-bearing, and that lake water levels have not returned to natural conditions, continuing water withdrawal could exacerbate any potential impacts to fish and fish habitat. Therefore, until an assessment has been completed and the issue has been resolved, DFO advises no further water withdrawal from Lake 997. Alternatively, if B2Gold Nunavut can confirm that water levels have returned to their natural conditions, then DFO will be satisfied with water withdrawal continuing in Lake 997 in the 2026/2027 winter ice road season.

DFO Comment #4 – Updated Road Signage and Water Withdrawal Tracking:

In addition to the increased withdrawal from Lake 997, 1,884 m^3 of water was withdrawn from unknown water sources along the winter ice road during the 2025/2026 ice road season. DFO provided comments on this in response to B2Gold Nunavut's *Back River Project 2025 Annual Report for Water Licence 2AM-BRP1831*.

B2Gold Nunavut previously proposed measures to avoid these issues in under-ice water withdrawal along the winter ice road from re-occurring. These measures included posting clear signage at each authorized water source, updating the water tracking spreadsheets, requiring more regular review of water usage against limits, and requiring withdrawal from depth, in deeper lake areas to avoid taking more oxygenated surface water to reduce risks

associated with potential over withdrawal. DFO anticipates these additional measures will avoid both i) exceedances in under-ice water withdrawal, and ii) withdrawing water from unknown water sources. DFO will however, continue to monitor water withdrawal activities along the winter ice road, and work collaboratively with B2Gold Nunavut to address any future issues.

DFO Comment #5 – Ice Road Construction and Decommissioning:

The winter ice road will likely require several crossings over watercourses, including the construction of ice bridges and snow fills. The improper construction, maintenance, or decommissioning of these crossings can impact fish and fish habitat through the disturbance of watercourse beds and banks, the release of sediments or other deleterious substances, and injury or mortality of fish by entrainment and impingement.

B2Gold Nunavut addressed mitigating impacts during the decommission of the road in the memo, stating "closure activities will focus on the protection of fish and fish habitat by ensuring sediments or other deleterious substances do not cause mortality of fish and maintain safe passage of fish for all crossings."

The *DFO Code of Practice* *Ice bridges and snow fills: Construction, maintenance and decommissioning* provides guidance on both the construction and decommissioning of winter water crossings, including several measures to protect fish and fish habitat specific to this activity. Please update the memo with this reference, where applicable, and adhere to all relevant avoidance and mitigation measures described within.

Regards,



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