

MEMO

From	Chris LeGoffe
To	Richard Dwyer
Ref.	2AM-BRP1831
Date	01 December 2025
Subject	2025 Winter Ice Road Technical Memorandum – Responses to Review Comments

Dear Mr. Dwyer,

Please find B2Gold Nunavut's responses to comments received on the 2025 Winter Ice Road Technical Memorandum.

Sincerely,


Dan Gagnon (Dec 6, 2025 09:47:18 MST)

Dan Gagnon, P. Geo
General Manager
B2Gold Nunavut

Cc: Jamie Richards, Operations Manager, B2Gold Nunavut
Clinton Wakefield, Operations Manager, B2Gold Nunavut
Bill Lytle, Chief Operating Officer, B2Gold

Interested Party:	Kitikmeot Inuit Association (KIA)	TRC NO.:	KIA-NWB-01
Re:	Date Mix Up		

KIA's Comment:

The October 22, 2024, was referring to the past season as the 2025 WIR season, which was now again the reference for the upcoming season. Not sure if this shouldn't be the 2026 season, r if they kept it is 2025 for a specific reason and will add a year as they are moving forward.

B2Gold Nunavut Response:

B2Gold Nunavut thanks KIA for their comment and acknowledges the date error that caused confusion. The Winter Ice Road (WIR) Technical Memorandum is prepared and submitted before construction of the WIR begins. Construction of the WIR typically occurs between mid-December of the current year through mid-February of the following year whereas the opening and operation of the WIR occurs between mid-February through mid-April of the following year. The technical memo should have specified that this is for the "Dec 2025/April 2026" WIR season.

Interested Party:	Kitikmeot Inuit Association (KIA)	TRC No.:	KIA-NWB-02
Re:	Estimated WIR Loads		

KIA's Comment:

On page 2, Section 3, they mention that they are expecting 2000 loads in the 2025 WIR season, but on page 4, section 5, they mention 3000 loads, which is similar to the October 22, 2024 report.

B2Gold Nunavut Response:

B2Gold Nunavut thanks KIA for their comment and acknowledges the confusion. B2Gold Nunavut confirms that the 2025/2026 WIR season will see up to 3,000 loads in total.

Interested Party:	Kitikmeot Inuit Association (KIA)	TRC No.:	KIA-NWB-03
Re:	WIR Figure		

KIA's Comment:

The drawing of Appendix A references the 2024 WIR, but I assume they mean 2025.

B2Gold Nunavut Response:

B2Gold Nunavut thanks the KIA for their comment. While the figure in Appendix A is from 2024, it will be the same route that is used in the 2025/2026 season unless there are any unpredicted field conditions that require a minor deviation (for safety reasons) to the route, which would typically only occur on a frozen lake.

Interested Party:	Kitikmeot Inuit Association (KIA)	TRC No.:	KIA-NWB-04
Re:	Referencing 2018 Golder Report		

KIA's Comment:

They are referencing the 2017 Gold report on page 4 under Section 8, but I assume they mean the 2018 report that was attached.

B2Gold Nunavut Response Provided on January 29, 2024:

B2Gold Nunavut thanks KIA for their comment regarding the 2018 Golder memo. B2Gold Nunavut confirms that we are referencing the 2018 Golder memo.

Interested Party:	Kitikmeot Inuit Association (KIA)	TRC No.:	KIA-NWB-05
Re:	GNWT / AB Guidelines for Building & Working Safely on Ice		

KIA's Comment:

In addition to the 2015 GNWT *Guidelines for Safe Ice Construction*, I would encourage B2Gold to consider and reference the new, 2024 *Guideline for Building and Working Safely on Ice Covers in Alberta*, which is a revised version of the document that had been used for the 2015 GNWT guidelines. The changes aren't substantial, but things have been modernized a little bit (cf. Proskin & Salman, 2025).

B2Gold Nunavut Response Provided on January 29, 2024:

B2Gold Nunavut appreciates the KIA's comment regarding the newer, updated 2024 Alberta guidelines for building ice overs. We confirm that that this 2024 document will be incorporated and referenced in the next revisions of this technical memorandum. We also want to assure the KIA that our contractors have substantial experience in the construction and maintenance of winter roads and may already be referring to this or similar guidance during the construction of the WIR.

Furthermore, all personnel tasked with working on or constructing the ice road are required to complete the Northern Safety Association's (NSA) specialized course, "Ice Roads & Safety Awareness".

Interested Party:	Department of Fisheries & Oceans (DFO)	TRC No.:	DFO Comment #1
Re:	Winter Water Withdrawal		

DFO's Recommendation(s):

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 DFO's *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).

An additional aspect of the DFO protocol is the recommendation to place water intakes in the deeper areas of waterbodies, to avoid deoxygenating oxygen-rich waters near the surface. B2Gold Nunavut should also follow this aspect of the protocol where possible.

B2Gold Nunavut Response:

B2Gold Nunavut thanks DFO for their thorough review and guidance on the Winter Ice Road's proposed water withdrawal. B2Gold Nunavut confirms and commits to ensuring that all intakes used for construction and maintenance of the WIR will occur in the deeper areas of all waterbodies.

Interested Party:	Department of Fisheries & Oceans (DFO)	TRC No.:	DFO Comment #2
Re:	Fish Screens		

DFO's Recommendation(s):

Water withdrawal from fish-bearing waterbodies will be required for winter ice road construction and maintenance. Direct fish mortality can occur during water withdrawal through entrainment/impingement. Entrainment occurs when a fish is drawn into a water intake and cannot escape. Impingement occurs when a fish is held in contact with the intake screen and is unable to free itself. The DFO Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater provides guidance on the design, installation and maintenance of small end-of-pipe water intake fish screens to prevent entrainment and impingement of fish. This code of practice is for small-scale water intakes (e.g. irrigation, construction, municipal and private water supplies, mining exploration).

B2Gold Nunavut should follow DFO's Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater when using fish screens, if water intake flow rate is up to 0.150 m³/s, or 150 litres per second (L/s).

B2Gold Nunavut Response:

B2Gold Nunavut thanks DFO for their review and acknowledges their comment regarding the use of fish screens. B2Gold Nunavut confirms that all water intakes have fish screens used as a proactive measure to prevent the impingement or entrainment of fish regardless of the waterbody along the WIR.

Interested Party:	Department of Fisheries & Oceans (DFO)	TRC No.:	DFO Comment #3
Re:	Ice Road Construction		

DFO's Recommendation(s):

The winter ice road will likely require several crossings over watercourses, potentially 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, including “restoring natural drainage by removing potential obstructions to drainage paths in advance of the spring melt”. The decommission of the road “will also include recovery of any sand along the alignment that may have been transferred by hauling equipment to frozen lakes from adjacent portages; this sand would only be placed on portages if additional traction was required for hauling vehicles”.

The DFO Code of practice: Ice bridges and snow fills 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. B2Gold Nunavut should follow DFO's Code of practice: Ice bridges and snow fills for ice bridge and snow fill operations.

B2Gold Nunavut Response:

B2Gold Nunavut thanks DFO for their review and acknowledges their comment regarding following DFO's Code of practice: Ice Bridges & Snow Fills. B2Gold Nunavut will ensure the WIR is constructed in a manner that prevents impacts to fish and fish habitat and will incorporate DFO's Code of practice where practicable.

2025_2026 B2Gold Nunavut 2AM-BRP1831 WIR Memo Comment Responses

Final Audit Report

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