



Fish and Fish Habitat Protection Program  
Arctic Region  
301 – 5204 50th Ave. (Franklin)  
Yellowknife, Northwest Territories  
X1A 1E2

Programme de protection du poisson et de son habitat  
Région de l'Arctique  
301 – 5204 50th Ave. (Franklin)  
Yellowknife, Territoires du Nord-Ouest  
X1A 1E2

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

*Your file*                      *Votre référence*  
2AM-BRP1831

November 21, 2025

**Subject:        B2Gold Nunavut – 2025 Winter Ice Road Technical Memo**

To whom it may concern,

On November 4th, 2025, the Nunavut Water Board invited parties to comment on B2Gold Nunavut's *2025 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Excessive amounts of water withdrawn from ice-covered waterbodies can impact fish through oxygen depletion, loss of over-wintering habitat and/or reductions in littoral habitat.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 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.

**DFO Comment #2 – Fish Screens:**

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 m<sup>3</sup>/s, or 150 litres per second (L/s).

**DFO Comment #3 – Ice Road Construction:**

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.

Yours sincerely,



William Richmond  
Biologist  
Fish and Fish Habitat Protection Program  
Fisheries and Oceans Canada