



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Fish and Fish Habitat Protection Program
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Programme de protection du poisson et de son habitat
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February 14, 2025

Your file *Votre référence*
3AM-GRA1631

Subject: Modifications to Water Supply Facilities for Water Licence (3AM-GRA1631)

To whom it may concern,

On January 15, 2025, the Nunavut Water Board invited parties to comment on the Modifications to Water Supply Facilities for water licence, 3AM-GRA1631,. The Fish and Fish Habitat Program of Fisheries and Oceans Canada (FFHPP) appreciates the opportunity to review the application and offers a comment below.

DFO Comment:

The Government of Nunavut (Community and Government Services), Water Licence Amendment documents outline the proposed construction of new infrastructure for the Water Treatment Plant at Williamson Lake, new raw water intake, and culverts which have the potential to impact fish and fish habitat.

Impacts to fish and fish habitat can occur during construction activities through loss of riparian habitat during site clearing, erosion and sedimentation, disturbance to fish and fish habitat during sensitive life stages, restriction of fish passage (e.g., at culverts) and water withdrawals, particularly during low water periods.

Direct fish mortality can occur during pumping activities 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. Excessive amounts of water withdrawn from waterbodies can impact fish through oxygen depletion, loss of over-wintering habitat and/or reductions in littoral habitat.

Recommendation:

In order to comply with the *Fisheries Act*, it is recommended that the Proponent follow DFO's protective measures for fish and fish habitat and standard codes of practice which can be found on DFO's website (<https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html> and <https://www.dfo-mpo.gc.ca/pnw-ppe/practice-pratique-eng.html>).

Proponents are also asked to respect the NU in-water works restricted activity timing windows ([Projects Near Water - Nunavut Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat \(dfo-mpo.gc.ca\)](https://www.dfo-mpo.gc.ca/projects/near-water-nunavut-restricted-activity-timing-windows-for-the-protection-of-fish-and-fish-habitat)) to protect fish during spawning and incubation periods when spawning fish, eggs and fry are vulnerable to disturbance or sediment.

The proponent should refer to DFO's Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater available at <https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html> when using fish screens and if the water intake flow is up to 0.150 m³/s, or 150 liters per second (L/s).

For water withdrawal from watercourses, DFO recommends the proponent follow the Framework for Assessing the Ecological Flow Requirements to Support Fisheries In Canada (<https://waves-vagues.dfo-mpo.gc.ca/Library/348881.pdf>) and demonstrates that water withdrawal rate remains <10% of actual (instantaneous) flow and does not result in flows <30% of mean annual discharge (MAD).

In addition, the proponent should follow the DFO Protocol for Winter Water Withdrawal in the NWT (2010) and not withdrawal more than 10% of under-ice water volumes ([Microsoft Word - Water Withdrawal Protocol - Jan 05.doc](#))

If the proposal meets the criteria for a site specific review, as described on DFO's website (<https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-003-eng.html>), they should complete and submit the request for review form available on the website(<https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-004-eng.html>).

It is also the proponent's Duty to Notify DFO if they have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption, or the destruction of fish habitat. Such notification should be directed to DFO.ARCENTriage-TriageGEARC.MPO@dfo-mpo.gc.ca

Yours sincerely,



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