



NIRB Application for Screening #126465

Renewal and Amendment of Water Licence 3BM-GRI2636 to Type A

Application Type: New
Project Type: Water
Application Date: Friday, July 17, 2026
Period of operation: from 2027-08-31 to 2047-08-31
Project Proponent: Municipal Works Division
Government of Nunavut
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Canada
Phone Number:: 867-975-5478, Fax Number::

DETAILS

Non-technical project proposal description

- English: A renewal to 2047 and amendment of the Grise Fiord Municipal Water Licence No. 3BM-GRI2636 from a Type B to a Type A Water Licence is requested. The amendment is required to support the operation of the new Grise Fiord Water Treatment Plant, which was previously reviewed under NIRB File No. 23XN069. The new water treatment plant will continue to use Airport River as the community's primary water source, consistent with the previously reviewed project. Water is available from the river during the open-water season and must be collected and stored to provide a reliable drinking water supply to the community throughout the year. The proposed amendment would allow up to 2,160 cubic metres of water to be withdrawn per day during the seasonal water collection period to refill the community's three water storage tanks, which have a combined storage capacity of 13,200 cubic metres. The request is intended to provide the operational flexibility needed to collect, treat, and store enough water for long-term community use. The water treatment plant can operate in two ways depending on community needs: seasonal treatment and year-round treatment. In both cases, up to 2,160 cubic metres of water per day may be withdrawn from Airport River. Under the seasonal treatment mode, only the amount needed for treatment is sent to the plant, and the remaining water is returned to Airport River through a recirculation system. Pumping under seasonal treatment is expected to last for up to 45 days, while under year-round treatment the refill pumping period is expected up to 7 days. Supporting studies found that the proposed maximum withdrawal rate is a small portion of the river's observed flow. A withdrawal of 2,160 cubic metres per day is about 0.9% of the river's observed average daily flow, and the hydrologic assessment concluded that Airport River is non-fish bearing and can support the community's drinking water needs based on the monitoring completed. Water withdrawal and recirculation volumes will be monitored and recorded during operation. Any water returned through the recirculation system would be discharged downstream of the intake location. The outlet would be placed near large stones to reduce flow energy and limit the potential for localized erosion. The returned water would be untreated source water taken directly from Airport River, and the project documentation indicates that erosion control measures are included to avoid environmental effects at the discharge point. The proposed licence amendment does not change the overall purpose of the previously reviewed water treatment plant project. Instead, it would allow the municipal water system to operate more reliably by providing flexibility during the seasonal water collection period while continuing to use the same primary source water supply.
- French: La demande porte sur le renouvellement, jusqu'en 2047, du permis municipal d'utilisation de l'eau de Grise Fiord n° 3BM-GRI2636 ainsi que sur sa modification afin de le faire passer de la catégorie B à la catégorie A. Cette modification est nécessaire à l'exploitation de la nouvelle station de traitement de l'eau de Grise Fiord, dont le projet a déjà été examiné dans le cadre du dossier NIRB n° 23XN069. La nouvelle station continuera d'utiliser la rivière Airport comme principale source d'eau de la collectivité, conformément au projet déjà examiné. Comme l'eau de la rivière n'est accessible que pendant la saison sans gel, elle doit être captée et stockée afin d'assurer à la collectivité un approvisionnement fiable en eau potable tout au long de l'année. La modification proposée autoriserait le prélèvement d'un maximum de 2 160 mètres cubes d'eau par jour pendant la période saisonnière de collecte afin de remplir les trois réservoirs de la collectivité, dont la capacité totale atteint 13 200 mètres cubes. Elle vise à fournir la souplesse opérationnelle nécessaire pour capter, traiter et stocker un volume d'eau suffisant afin de répondre aux besoins à long terme de la collectivité. La station de traitement de l'eau peut fonctionner selon deux modes, en fonction des besoins de la collectivité : le traitement saisonnier et le traitement à l'année. Dans les deux cas, jusqu'à 2 160 mètres cubes d'eau par jour peuvent être prélevés dans la rivière Airport. En mode saisonnier, seule la quantité d'eau nécessaire au traitement est acheminée vers la station, tandis que le reste est renvoyé dans la rivière Airport au moyen d'un système de recirculation. Le pompage devrait durer jusqu'à 45 jours en mode saisonnier et jusqu'à 7 jours pour le réapprovisionnement en mode de traitement à l'année. Des études complémentaires ont démontré que le débit maximal de prélèvement proposé ne représente qu'une faible proportion du débit observé de la rivière. Un prélèvement de 2 160 mètres cubes par jour équivaut à environ 0,9 % de son débit quotidien moyen observé. Selon l'évaluation hydrologique et les suivis réalisés, la rivière Airport ne contient aucun poisson et peut répondre aux besoins en eau potable de la collectivité. Les volumes d'eau prélevés et recirculés feront l'objet d'un suivi et seront consignés pendant l'exploitation. L'eau renvoyée par le système de recirculation serait rejetée

Inuktitut:

Inuinnaqtun:

Nutaanguqtiirniq hamunga 2047 uvalu ihuaqhaqtaujuaq haffumunga Ausuitturmi Haamlat Imakkut Laisia No. 3BM-GRI2636 hamanga Qanuginia B hamunga Qanuginia A Imakkut Laisi tukhiqtaujuq. Tamna nuutaanguqtiqhimajuq piqaqtukhaq ikajuutikharnik auladjutikharnik nuutaangujuq Ausuitturmi Imarmik Halumaqtiurutikhaq Havakviangit, taima ihivriuqtauvakhimajuq talvuuna NIRBkutni Titiqat Titiqat Nappaa 23XN069. Tamna nuutaangujuq imarmik halumaqtiurutikhaq aulahimaarniaqtuq atugiangani Milviup Kuugaanik nunalaani imiqtarvikharnik, aulajukharnik talvani kinguliujuunik ihivriuqtauhimajuunik havaaqhangit. Imaq piinagialik kuukkamin hikuiqtilugu uvalu katitiqtaujuukhaq uvalu tutquqhimalugu tunihijaangani ihuaqtumik imigakhamik immaqmik nunallaamun ukiuq tamaat. Tamna tukhiqtauhimajuq nuutaanguqtiqhimajuq pigiaqtitinaqtun taima 2,160 cubic metresnik imarmik piijaqtaujuukharnik ubluq tamaat talvuuna ukiungani imarmik katitirvikharnik imiqtuijaangat nunalaani pingahuujut imaqarviingit, taima piqaqtun atautimiitun imaqarvikharnik taima 13,200 cubic metresnik. Tukhiut pihimajuq tunihijaami auladjutikkut ihuangnighainik ihariagijaujut katitiriangini, halumaqhijaami, tutquqhimalugillu naamajuunik imarmik hivitujumik-kikliqaqtut nunallaat atugahait. Imiqtaqviat aulajaaqtuq malguknik qanuginiitigut nunallaat ihagiagijainik: ukiutigut halumaqhijut uvalu ukiuq-tamaat halumaqhijut. Tamangni, imaa 2,160 cubic metresmik imarmik attauhirmi ublumi unguvaqtaujaqtut hamanga Milviup Kuugaani. Ataani ukiup iluani halummaqtiurutimi, taamnainnaq aktilaanga ihariagijaujuq halummaqtirutimut tujugtauvaktuq pauwaqarvingmut,

ilakungalu imaq utiqtitauvaktuq Milviup Kugaarmut utiqtiffaaqhugu aulavikhaanut. Immiqtauniq ataani ukiup iluani halummaqtirutimi niriuktaujuq hivituniqarniaqtuq imaatun 45nik ublunik, taimaalu ataani ukiuq-tamaat halummarhidjutimi imiqtauffaarutikkut niriuktaujuq imaatun 7nik ublunik. Ikajuutaujut naunaijautit paqitijut tapkua tukhiqtaujut kiklikhait unguvaqtirnikkut aktilaangit mikijuuq ilanga kuukkap tautuktaujuq kuukninga. Unngavaqtirninga imaatut 2,160 cubic metres-mik atauhirmi ublumi imatut 0.9%-ngujuq kuukkap qun'ngiaqtaujuq ubluq tamaat kuukninganik, imaup imanganik naunaijaidjutaa naunairutaujuq tamna Milviup Kuugaa iqaluqangittuq ikajuutauhungujuqlu nunallaap niuqqaqtakhamik imarmik ihariahuutainut munaqhidjutainut iniqtauhimajunut. Imaq unngavaqtirutaa imaalu imiqtaffaarutait aktilaangit munarijauniaqtut titiraqtaulutiklu havagtautitlugit. Kituliqaak imaq utiqtitaujuq talvuuna aulavikhatigun kuviraqtauniaqtuq anmun imiqtarvianun. Kuvivia ilijauniaqtuq haniani angijut ujaqqat mikhijuumigiangani aulaniit uvalu kikliqagiangani nunap nungutiqnia. Utiqtitaujuq imaq halumaqtiqhimangituq imaq pihimajuq hamanga Milviup Kugaarmin, uvalu havaaghap titirgat naunaijaqhimajut nunap nungutiqpalianikkut munagidjutikkut aktilaangit ilaujut avatingnun hulaqutainun kuviraqvianun. Tamna tukhiqtauhimajuq laisikhaq nuutaanguqtiqhimajuq allanguqtilimaitaat tamaat pidjutikhangit kingulirmi ihivriuqtauvakhimajuq imarmik halumaqtirutikhaq havaaqhangit. Kihimi, pipkaidjutiniaqtaa haamlatkut imiqtarvinga aulapkaigiami nakuutqijajumik tunigiami pittaarninnga ukiup ilainnaani imiqtarvinga atuqhimmaaqtillugu aadjikutaanik imiqtarvinganik.

Personnel

Personnel on site: 1

Days on site: 45

Total Person days: 45

Operations Phase: from 2026-04-30 to 2027-08-31

Operations Phase: from 2027-08-31 to 2047-08-31

Post-Closure Phase: from to

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Pumping Location at Airport River	Other	Commissioners	Currently undeveloped, but will be developed (NIRB File No.: 23XN069) by the time of withdrawing water above 299 m ³ per day.	None	Within the community of Grise Fiord

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Grise Fiord	SAO and Municipal Council	Municipality of Grise Fiord	2026-07-12

Authorizations

Indicate the areas in which the project is located:

North Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	3BM-GRI2636	Active	2026-05-22	2036-05-21
Hamlets and Municipalities	Municipal Council Motion for Project	Active	2024-03-19	

Project transportation types

Transportation Type	Proposed Use	Length of Use
Land	Access to the pumping location will be using the access road	

Project accomodation types

Community

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Centrifugal Pump	1	xyz	Seasonal pump to withdraw water from Airport River

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	1	106	106	Liters	Diesel tank for centrifugal pump

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
2160	Centrifugal pump	Airport River at the end of access road currently under construction for the new water treatment plant (NIRB File No.: 23XN069)

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Information is not available				

Environmental Impacts:

Erosion at the location of the return water from the recirculation system return line will be mitigated with large stones to dissipate the water's energy and prevent ground erosion.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

See attached memo Grise Fiord WTP - Type A Water License Application Support Documentation. The design deviates from the river intake under NIRB File No.: 23XN069. The design and operations now include a recirculation system used to control the amount of flow into the water treatment plant by diverting a portion of the pumped water back to the river downstream of the river intake.

Description of Existing Environment: Physical Environment

Airport River within the community of Grise Fiord.

Description of Existing Environment: Biological Environment

Airport River within the community of Grise Fiord. The river is non-fish bearing.

Description of Existing Environment: Socio-economic Environment

Within the community of Grise Fiord.

Miscellaneous Project Information

None

Identification of Impacts and Proposed Mitigation Measures

See attached memo Grise Fiord WTP - Type A Water License Application Support Documentation

Cumulative Effects

None

Impacts

Identification of Environmental Impacts

Construction																										
Other		M	M	M	-	M	M	M	M	M	M	M	M		M	M	M	M	M		M	M	M	M	M	
Operation																										
Other		M	M	M	-	M	M	M	M	M	M	M	M		M	M	M	M	M		M	M	M	M	M	
Decommissioning																										
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

- | | | |
|---|---------|---|
| 1 | polygon | Water Treatment Plant and Water Storage Tanks |
| 2 | point | Pumping Location at Airport River |