



## **NIRB Uuktuutinga Ihivriuqhikhamut #125969**

### **Amendment to Municipality of Grise Fiord Water Licence 3BM-GRI2025**

|                                     |  |
|-------------------------------------|--|
| <b>Uuktuutinga Qanurittuq:</b>      | New  |
| <b>Havaap Qanurittunia:</b>         | Municipal and Industrial Development   |
| <b>Uuktuutinga Ublua:</b>           | 5/25/2024 2:11:28 PM   |
| <b>Period of operation:</b>         | from 2028-10-01 to 2048-10-01  |
| <b>Havauhikhaq<br/>Ikayuqtinga:</b> | Community Support Division<br>Government of Nunavut<br>p.o. box 700 station 1000<br>Iqaluit Nunavut x0a0h0<br>Canada<br>Hivayautit Nampanga:: 867-975-5478, Kayumiktukkut Nampanga:: |

## Tukihiannaqtunik havaariyaumayumik uqauhiyun

Qablunaatitut: The Government of Nunavut Department of Community and Government Services, on behalf of the Municipality of Grise Fiord, is applying for an amendment to water licence 3BM GRI2025 to replace the existing water supply infrastructure, increase the maximum annual water withdrawal volume, and to upgrade the existing landfill. A design for the new water supply infrastructure is complete and business case for the landfill upgrades has been developed. There is no change to wastewater management being requested at this time. The new water supply facility will consist of a treatment building, three water storage tanks and water will be transported from the river using a gas driven centrifugal pump, through 300 m of flexible overland hose, where it then drops into a chamber and enters a buried pipeline that extends another 300 m to the treatment building. Grise Fiord must fill storage tanks each summer to maintain water supply to the community throughout the year. The water source will remain the same for the new facility. An increase in water withdrawal is being requested because the new system will have an additional tank to provide the community with redundancy should a tank fail in the future. The new total tank capacity will hold a maximum of 13,200 m<sup>3</sup> of water. The overland flexible piping for water withdrawal will be stored once the resupply is complete each year. The footprint of the landfill will remain the same, but the upgrades are intended to improve regulatory compliance by addressing the following:

- stormwater management and ditching to divert water from the landfill;
- waste containment and segregation by berming the existing landfill areas and establishing a drop-off area; and
- installation of fencing to improve containment.

Uiviititut: Le ministre des Services communautaires et gouvernementaux du gouvernement du Nunavut présente, au nom de la municipalité de Grise Fiord, une demande de modification à son permis d'utilisation des eaux 3BM GRI2025 afin de remplacer l'actuelle infrastructure d'approvisionnement en eau, d'augmenter le volume annuel d'eau prélevée et de moderniser le site d'enfouissement actuel. La conception de la nouvelle infrastructure d'approvisionnement en eau est terminée et l'analyse du projet d'amélioration du site d'enfouissement a été élaborée. À l'heure actuelle, aucune modification n'est demandée concernant la gestion des eaux usées. La nouvelle infrastructure d'approvisionnement en eau comportera un bâtiment pour son traitement et trois réservoirs d'eau, et l'eau de la rivière sera acheminée sur 300 m par un tuyau flexible de surface, à l'aide d'une pompe centrifuge au gaz, jusqu'à une chambre à partir de laquelle elle parcourra 300 m dans une canalisation enterrée jusqu'au bâtiment de traitement. Chaque été, Grise Fiord doit remplir ses réservoirs pour maintenir l'approvisionnement en eau de la localité tout au long de l'année. La nouvelle installation utilisera la source d'eau actuelle. La modification demandée quant au volume d'eau prélevé découle de l'ajout d'un réservoir au nouveau système, ceci afin de disposer d'une marge de manœuvre pour assurer l'approvisionnement de la localité advenant la défaillance d'un des réservoirs. La nouvelle infrastructure d'approvisionnement en eau aura une capacité totale de 13 200 m<sup>3</sup> d'eau. Une fois tous les réservoirs remplis, le tuyau flexible de surface sera rangé jusqu'à l'année suivante. L'empreinte du site d'enfouissement demeurera la même, mais les améliorations visent à en améliorer la conformité réglementaire par : • la gestion des eaux pluviales et l'aménagement d'un fossé pour en éloigner l'écoulement du site d'enfouissement; • le confinement et la séparation des déchets par l'aménagement de bermes autour des sites d'enfouissement existants et l'établissement d'une aire de dépôt; • l'installation de clôtures pour maximiser le confinement.

[illegible]

Inuinnaqtun: Nunavut Kavamanga Kavamatngni Kavamatkunnilu Pivikhaqautikkut, pitqutigiquplugu Haamlanganit Ausuittuq, uuktuliqtut aadlanguriami imaqmut laisinganik 3BM GRI2025 himmiriami ittut imaqarvinga aulapkaitjutikhanik, angikliyuumiqlugu kiklinga ukiuq tamaat imaq taimaaqtittiyuq qanuraaluktut, nutaanguqtiriamilu ittut iqqakuuqvik. Qanurinnikhaa nutaamun imaqarvikhanun igluqpaghatigut iniqtauyuq uvalu nanminiaqtut pidjutauyut haffumunga iqakuuqviknun nutaanguqtigutikhat havaktauyut. Aalagugituq iqqakunik iqqakunik munagidjutinik apiqhiyut tadja. Nutaag imaqarvikhaq piqaqniaqtuq halumaqhiivikhamik igluqpakmik, pingahut imaqarviit quyagiyauyut imarlu agyaqtauniaqtut kuukkap atuqluni gaasalimik pamirvikhangit 300 mik ihuaqtumik tuqhuaqarluni nunat qangagun, taima anmugianganiq iliugarvikhaanun ilaulunilu hauhimajumik tuqhuangit hivutunirmik aulaniqaqtun 300 nik miitanik halumaqhiyumun igluqpaangnun. Ausuittuq tatatiyukhaq qattaryuit auyaq tamaat pihimayaangani imaqarvikhaq nunallaamun ukiuq tamaat. Imaq aulalimaituq aadjikiiktumik nutaamun igluqpangmun. Akituquyumiyut imakkut auladjutikharnik tukhiqtauliqtut taimaali nutaag auladjut piqangniaqtuq ilaliutihimayunik qatarjunik tunihiyaangani nunallaanun aupayaaqtumik imaqarvikhamik ihuangitpat hivungani. Nutaag atautilimut qattaryuit aktikkutilanga 13,200 m<sup>3</sup>-nik imarmik. Tamna nunami ayurnaittumik imarmik auladjutjikharnik tutqurlugit qataryuangit inirumik ukiuq tamaat. Tamna hanadjutikhanga iqakuuqvik aulangulimaituq, kihimi tamna nuutaanguqtiquhimayut havakhimayut ihuaqhaidjutikharnik malikhautikharnik ilituqhaiyaangat ukuninga: •hilarluk imap munaridjutait kukulaqibluliklu ahinungaqlugit imaq iqakuuqvikmin; •iqakut iluaniituaqtut uvalu ikualatiivit ikualatilugit iqakuuqviit uvalu havaklugit agitiqviit nayugainut; unalu •iliurainiq avatiliqimik pimmarigharnikkut hiamitigtaaqtunik.

Personnel on site: 2

Total Person days: 730

Operations Phase: from 2026-07-01 to 2028-10-01

Operations Phase: from 2028-10-01 to 2048-10-01

### Post-Closure Phase: from to

# Hulilukaarutit

| Inigiya  | Hulilukaarut Qanurittuq              | Nunannga Qanurittaakhaanik | Initurlinga qanuritpa   | Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga | Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtailiyainnit nuna |
|--|--------------------------------------|----------------------------|---|---|--|
| Water Treatment Plant                                | Municipal and Industrial Development | Municipal                  | Lot adjacent to the power plant. New plant will provide treated water to the community. | N/A   | Within the municipality  |
| Existing landfill where the upgrades will take place | Landfill                             | Municipal                  | Existing landfill will be upgraded to improve solid waste management and containment.   | N/A   | Within the municipality  |

## Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

| Nunauyuq  | Atia          | Timiuyuq                    | Upluani Uqaqatigiyaungmata |
|-----------|---------------|-----------------------------|----------------------------|
| Ausuittuq | David General | Municipality of Grise Fiord | 2024-03-24                 |

# Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Angiuttauvaktunik

| Munariniqmut<br>Ayuittiaqtuq     | Angirutinga<br>Qanurittuq | Tadja<br>Qanurittaakhaanik | Ublua<br>Tuniyauyuq/Uuktuqtuq | Umikvikhaa<br>Ublua |
|----------------------------------|---------------------------|----------------------------|-------------------------------|---------------------|
| Nunavut Imaligiyyit<br>Katimayit | 3BM GRI2025               | Active                     | 2020-12-09                    | 2025-12-08          |

## Project transportation types

| Transportation<br>Type | Qanuq Atuqtauniarmangaa                        | Length of Use |
|------------------------|--|---------------|
| Air                    | Some water treatment equipment may be flown in |               |
| Water                  | Sealift of most construction materials         |               |

## Project accomodation types

Nunauyuq

## Ihuaqutivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

| Hanalrutit Qanurittuq | Qaffiuyut | Aktikkulaanga – Qanurittullu | Qanuq Atuqtauniarmangaa       |
|-----------------------|-----------|------------------------------|-------------------------------|
| Heavy                 | 1         | Unknown                      | Front end Loader or Excavator |

### Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

| Qanurittuq urhuqyuaq hunavaluit aturninnga: | Urhuqyuaq Qanurittuq | Qaffiuyut qattaryut | Qattaryuk Aktikkulaanga | Atauttimut Qaffiuyut | Ilanga | Qanuq Atuqtauniarmangaa                          |
|---|----------------------|---------------------|-------------------------|----------------------|--------|--|
| Diesel                                      | fuel                 | 1                   | 10000                   | 10000                | Liters | Used to fuel heavy equipment during construction |

### Imaqmik Aturninnga

| Ubluq qanuraaluk (m3) | Aturumayain imavaluin utiqtittagaani qanuq                              | Atulirumayain imavaluin utiqtittagani humi |
|-----------------------|---|--|
| 299                   | Water will continue to be pumped from the licenced source Airport River | Airport River                              |

# Iqqakuq

## Ikkakunik Munakgiyauyunik

| Havauhikhaq<br>Hulilukaarut | Qanurittuq<br>Iqqakut | Ihumagiyauyuq<br>Qanuraaluktut<br>Atuqtait | Qanuq<br>Iqqakuurniarmangaa             | Halummaqtirarnirutikhan<br>piyutin                           |
|-----------------------------|-----------------------|--|---|--|
| Landfill                    | Qayangnaqtut          | 0.6 cubic meters<br>per capita per<br>year | Temporary<br>containment at<br>landfill | Backhauling to an<br>approved facility for final<br>disposal |
| Landfill                    | Other, Domestic       | 6 cubic meters<br>per capita per<br>year   | Landfilling                             | N/A  |

### Avatiliriniqmut Ayurhautingit:

The water treatment plant provide sustained access to safe drinking water and upgraded landfill will improve the containment of waste, supporting environmental protection.

# **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**

This is critical municipal infrastructure within the municipal bounds

**Qanurittuq Ittunik Avatinga: Avatingalluanga**

This is critical municipal infrastructure within the municipal bounds

**Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga**

This is critical municipal infrastructure within the municipal bounds

**Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga**

This is critical municipal infrastructure that is essential for municipal operations.

**Miscellaneous Project Information**

Not applicable

**Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit**

Not applicable

**Tamatkiumayunik Ihuikgutivaktunik**

Not applicable

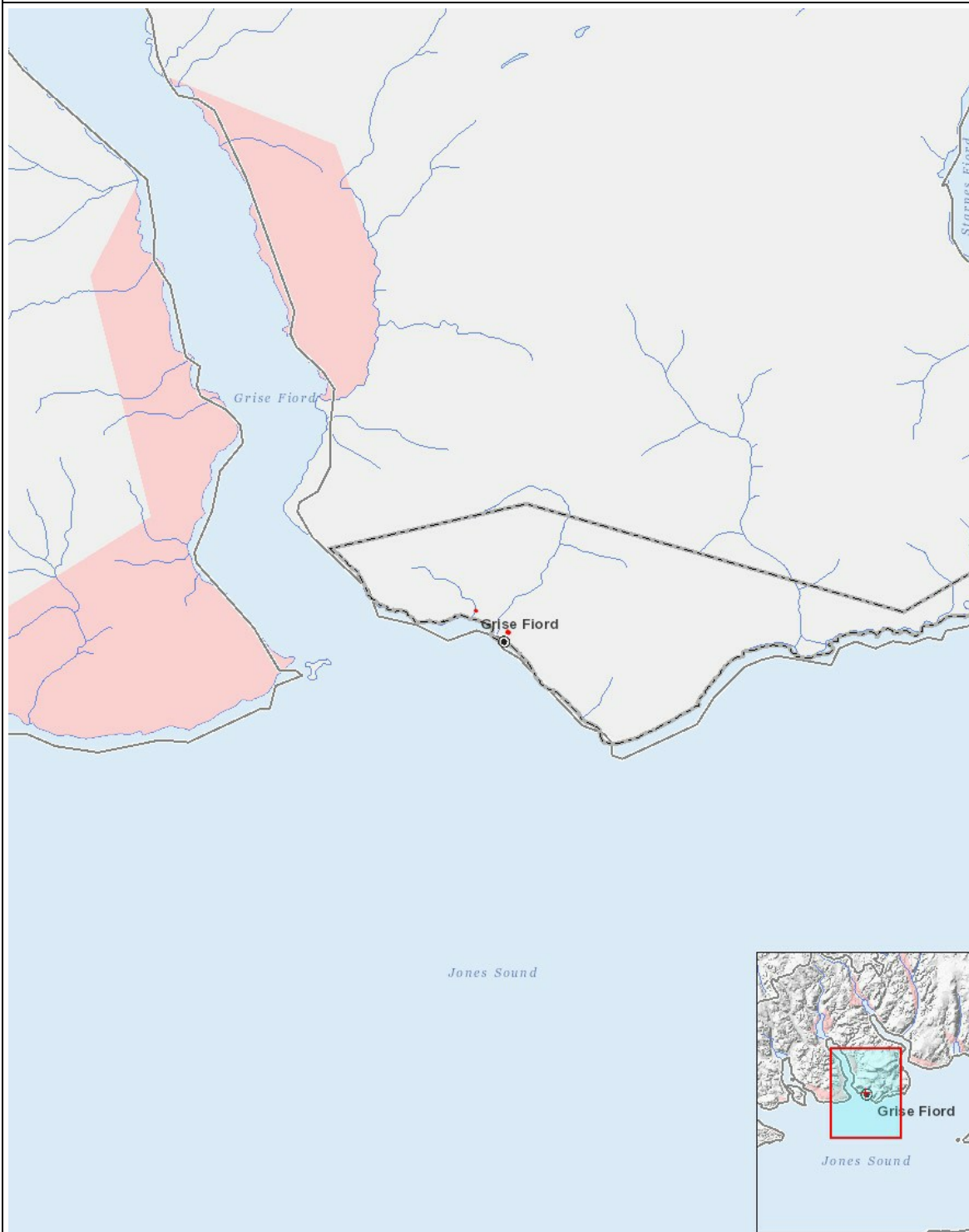
# Impacts

## Ilitariyauniq Avatiliriniqmut Ayurhautingit

|                                      | PHYSICAL | Designated environmental areas | Ground stability | Permafrost | Hydrology / Limnology | Water quality | Climate conditions | Eskers and other unique or fragile landscapes | Surface and bedrock geology | Sediment and soil quality | Tidal processes and bathymetry | Air quality | Noise levels | BIOLOGICAL | Vegetation | Wildlife, including habitat and migration patterns | Birds, including habitat and migration patterns | Aquatic species, incl. habitat and migration/spawning | Wildlife protected areas | SOCIO-ECONOMIC | Archaeological and cultural historic sites | Employment | Community wellness | Community infrastructure | Human health |
|--------------------------------------|----------|--------------------------------|------------------|------------|-----------------------|---------------|--------------------|---|-----------------------------|---------------------------|--------------------------------|-------------|--------------|------------|------------|--|---|---|--------------------------|----------------|--|------------|--------------------|--------------------------|--------------|
| <b>Havakvinga</b>                    |          |                                |                  |            |                       |               |                    |   |                             |                           |                                |             |              |            |            |  |   |   |                          |                |  |            |                    |                          |              |
| Landfill                             |          | -                              | -                | -          | -                     | -             | -                  | -   | -                           | -                         | -                              | -           | -            |            | -          | -  | -   | -   | -                        |                | -  | P          | P                  | P                        | P            |
| Municipal and Industrial Development |          | -                              | -                | -          | -                     | -             | -                  | -   | -                           | -                         | -                              | -           | -            |            | -          | -  | -   | -   | -                        |                | -  | P          | P                  | P                        | -            |
| <b>Aulapkaininnga</b>                |          |                                |                  |            |                       |               |                    |   |                             |                           |                                |             |              |            |            |  |   |   |                          |                |  |            |                    |                          |              |
| Landfill                             |          | -                              | -                | -          | -                     | P             | P                  | -   | -                           | -                         | -                              | -           | -            |            | -          | -  | -   | -   | -                        |                | -  | P          | P                  | P                        | P            |
| Municipal and Industrial Development |          | -                              | -                | -          | -                     | P             | -                  | -   | -                           | -                         | -                              | -           | -            |            | -          | -  | -   | -   | -                        |                | -  | P          | P                  | P                        | P            |
| <b>Piiqtauniq</b>                    |          |                                |                  |            |                       |               |                    |   |                             |                           |                                |             |              |            |            |  |   |   |                          |                |  |            |                    |                          |              |
| -                                    |          | -                              | -                | -          | -                     | -             | -                  | -   | -                           | -                         | -                              | -           | -            |            | -          | -  | -   | -   | -                        |                | -  | -          | -                  | -                        | -            |

(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

## Havaariyauyukhamut Nayugaa



### List of Project Geometries

- |   |         |  |
|---|---------|--|
| 1 | polygon | Existing landfill where the upgrades will take place |
| 2 | polygon | Water Treatment Plant                                |