



New

Coastal Infrastructure

Monday, June 23, 2025

from 2030-07-01 to 2080-09-03

Justin

Government of Nunavut
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Iqaluit Nunavut (NU) X0A 0H0
Canada
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▷ΔΑΠΝΩ: n/a

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Post-Closure Phase: from to

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Port Area	Offshore Infrastructure (port, break water, dock)	Municipal	The port area is frequently used by community members for target practice. Fuel offloading facility is situated to the north of the port area, trail and berry picking area to the east, and Broughton Channel to the west.	Archaeological field assessment found no evidence of archaeological features in the port study area.	The port area is within the municipal boundaries of Qikiqtarjuaq. The main residential area of Qikiqtarjuaq is approximately 2.5 km north of the port area.
Port Area	Access Road	Municipal	The port area is frequently used by community members for target practice. Fuel offloading facility is situated to the north of the port area, trail and berry picking area to the east, and Broughton Channel to the west.	Archaeological field assessment found no evidence of archaeological features in the port study area.	The port area is within the municipal boundaries of Qikiqtarjuaq. The main residential area of Qikiqtarjuaq is approximately 2.5 km north of the port area.
Quarry Area	Quarry/Borrow pit	Municipal	The proposed location of the new quarry is a popular picnic spot for locals who access it via a trail across the road from the fuel depot.	Eight archaeological sites were identified through archaeological field assessment. The sites contain hearths or possible inukshuks associated with the community picnicking area.	The proposed quarry area is within the municipal boundary, approximately 1 km from the main residential area.
Construction Camp Area	Camp	Municipal	Undeveloped land zoned for future residential development.	Archaeological field assessment found no evidence of archaeological features.	Within municipal boundaries, approximately 750 m from main residential area.

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ᑦᑲᑦᑲᑦᑲᑦᑲᑦ	Daisy Arnaquq, Mayor	Hamlet of Qikiqtarjuaq	2023-12-12
ᑦᑲᑦᑲᑦᑲᑦᑲᑦ	Geela Kooneliusie, SAO	Hamlet of Qikiqtarjuaq	2023-12-12
ᑦᑲᑦᑲᑦᑲᑦᑲᑦ	Geela Qiyuqtaq	HTO	2023-12-12

ᑭᑭᑭᑭᑭᑭᑭᑭ	Jonah Audlakiak	HTO	2023-12-12
ᑭᑭᑭᑭᑭᑭᑭᑭ	Tommy Atsanilk	HTO	2023-12-12
ᑭᑭᑭᑭᑭᑭᑭᑭ	Lizzie Natsiapik	HTO	2023-12-12
ᑭᑭᑭᑭᑭᑭᑭᑭ	Lucyanna Nookiguak	HTO	2023-12-12
ᑭᑭᑭᑭᑭᑭᑭᑭ	Juilie Kuksiak	HTO	2023-12-12
ᑭᑭᑭᑭᑭᑭᑭᑭ	Lootie Toomasie	Arctic Fisheries Alliance	2024-03-18
ᑭᑭᑭᑭᑭᑭᑭᑭ	Dennis Nauyavik	Arctic Fisheries Alliance	2024-03-18
ᑭᑭᑭᑭᑭᑭᑭᑭ	Chris Flanagan	Baffin Fisheries	2024-04-17

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Project transportation types

Transportation Type	ᐱᓇᑦ ᐸᓚᐅᓂᐱᓄᐱᓪᐳᖅ	Length of Use
Air	Personnel required to construct the port will travel to Qikiqtarjuaq by air.	
Water	Equipment and materials to construct the port will be brought to Qikiqtarjuaq by ship/barge	

Project accomodation types

Temporary Camp

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Drilling rig	2	5.5 x 2.3	Quarrying
Excavator	5	30 - 60 ton	Quarrying, material handling, excavating
Rock truck	5	11.1 x 4.2	Transporting quarried rock
Transport truck	2	40 tons	Transporting equipment and materials
Front end loader	3	7.5 x 2.5	Material loading and handling
Compactor	1	20 ton	Work surface and road compaction
Bulldozer	1	3.2 x 2.7	Work surface and road levelling
Grader	1	140 ton	Work surface and road grading
Spud barge/ derrick	1	20m x 50m deck with 150 ton crane	Dredging, transporting material and equipment
Material scow	2	500 cubic metre	Dredging and disposal of dredged material
Tug	1	1000 - 1500 horsepower	Transport and movement of marine equipment
Work boat	2	50 - 500 horsepower	Transport and movement of marine equipment and personnel
Pick-up truck	3	3/4 ton	Transport and movement of equipment and personnel
Fuel/service truck	1	10 ton	Transport fuel from Government of Nunavut Petroleum Products Division dispensers to mobile equipment
Water truck	1	10 ton	Transport water from municipal water to work camp and construction site
Wastewater truck	1	10 ton	Transport wastewater from work camp and construction site to municipal wastewater treatment facility
Telehandler/ forklift	1	5 ton	Material and equipment loading, handling, and movement
Rough terrain crane	1	250 ton	Material and equipment loading, handling, and movement
Rock Crusher for quarry	1	125 ton	Portable jaw crusher, cone and screening plant for

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Camp	ፍጹም ምርት ለምርት	2 tonnes	Municipal landfill	n/a
Camp	ፍጹም ምርት ለምርት	800 cubic metres	Collected by wastewater truck and transported to municipal wastewater treatment facility	n/a
Offshore Infrastructure (port, break water, dock)	ፍጹም ምርት ለምርት	100 litres	Packaged, sealed, and transported south in shipping containers for disposal according to applicable regulations	n/a
Camp	ፍጹም ምርት ለምርት	0.5 tonnes	Municipal landfill	n/a
Offshore Infrastructure (port, break water, dock)	Other, Dredge spoils	25000 cubic metres	Infilling, reuse, and/or land disposal	Dewatering
Quarry/Borrow pit	ፍጹም ምርት ለምርት	0 cubic metres (negligible)	Stockpiled at quarry	n/a
Camp	ፍጹም ምርት ለምርት	1500 cubic metres	Collected by wastewater truck and transported to municipal wastewater treatment facility	n/a

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Measurable environmental effects of the Project have been identified for the following VCs: Atmospheric Environment - Air quality, ambient noise, ambient light. Terrestrial Environment - Permafrost, soils and terrain, vegetation, wildlife and wildlife habitat. Freshwater - Surface water resources (hydrology and water quality). Marine Environment - Tidal and bathymetry, marine water and sediments, marine fish and fish habitat, marine mammals, SAR and SoCC. Socio-economic Environment - Employment and business opportunities, community infrastructure, human health and safety, community wellness and traditional land uses, archaeological and cultural historic resources. The following VCs are not expected to experience measurable or significant environmental effects and are not evaluated further: Atmospheric Environment - Climate conditions. Terrestrial Environment - Ground stability, environmentally sensitive areas, SAR and SoCC. Freshwater - Freshwater fish and fish habitat.

Additional Information

SECTION A1: Project Info

The Project consists of the construction and operation of a 75 m long closed-face marginal wharf structure with 10 m depth at low tide and 18,000 m² of laydown space. The port has been designed to accommodate ships up to 150 m in length and 9.9 m draft, which includes a wider range of vessels than are currently able to access Qikiqtarjuaq.

SECTION A2: Allweather Road

A short (275 m) access road will be constructed as part of the project to connect the port facilities to the existing 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

Rock and gravel required to construct the new port and access road will be sourced from a new quarry. The proposed quarry is approximately 2 km by road from the port site. The road that will be used to haul material from the quarry has been recently constructed by the municipality.

SECTION D1: Facility

The Project will consist of the following components: 75 m long closed-face marginal wharf structure with armour stone protection, 275 m access road connecting to existing municipal roads, Crane for offloading cargo, Wastewater receiving systems, VHF radio communications station, Freezer container facilities, Operations and security office, Power distribution.

SECTION D2: Facility Construction

Construction of the project will require the following: Quarrying operations (e.g., blasting, excavation) at a new quarry in Qikiqtarjuaq Temporary materials stockpile areas Temporary staging/laydown areas Temporary camp to accommodate workers. Dredging and disposal of dredged material (may be used for construction) Utility installation (e.g., poles, lighting) The road that will be used to haul material from the quarry has been recently constructed by the municipality; a short (275 m) access road will be constructed as part of the Project to connect the port facilities to the newly constructed road. Infilling and excavation will be carried out to establish the port facilities and expand the upland area for the laydown area. Some dredging may be required to construct the new wharf. Disposal locations for dredged material have not yet been selected; it may be stockpiled on land for use by the community or reused at the Project site.

SECTION D3: Facility Operation

The Project will include an operations and security office, wastewater receiving systems, power transmission lines, and an approximately 275 m long access road connecting the facility to existing municipal roads. Equipment will include a mobile crane to offload cargo, VHF radio communications station, and services to allow for freezer containers. The port, as currently designed, will not provide fuel services. The facility has a design service life of 50 years with regular inspection, maintenance, and repairs. Some components, such as the wharf structure itself, may exceed this, but utilities and mobile equipment and tools will require infrequent replacement due to regular, unavoidable wear and tear.

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

Vessels that could be accommodated include commercial, scientific, and recreational boats, and even small cruise ships, but it is unknown what types of vessels may ultimately visit the port. Vessels will dock under their own power as the port will not employ tugboats or other docking aids.

SECTION H2: Disposal At Sea

Not currently expected

SECTION I1: Municipal Development

the study area: Rocky and Sandy Beach Shoreline (RSB), Dwarf Shrub Tundra (DST), Upland Rocky Slope (URS), Upland Bedrock (UPB), and Disturbed (DIS). None of these communities are considered to be rare or significant in Nunavut. The location of the proposed port overlaps with Rocky and Sandy Beach Shoreline and Disturbed communities; the quarry will be constructed on Upland Bedrock and Upland Rocky Slope communities. The project will make use primarily of existing roads, which are surrounded by Dwarf Shrub Tundra. Traditional knowledge identified parts of the Project Study Area as important for berry picking, which likely refers to Bog Bilberry, a common edible berry in the area.

5.2.3 Wildlife and Habitat

As indicated above, onshore areas of the proposed port overlap with Rocky and Sandy Beach Shoreline (RSB) and Disturbed (DIS) vegetation communities, and the quarry area overlaps with Upland Bedrock (UPB) and Upland Rocky Slope (URS) communities. These communities are of limited value to wildlife except as movement areas and potential habitat for birds that nest on bare ground. Intertidal areas provide foraging opportunities for marine birds and small mammals at low tide. CBCL conducted breeding bird surveys in July and September of 2024, which consisted of area searches in terrestrial habitats and visual surveys at five marine bird observation points. A total of 16 bird species were documented with three exhibiting breeding behaviour: American Pipit (*Anthus rubescens*), Horned Lark (*Eremophila alpestris*), and Snow Bunting (*Plectrophenax nivalis*). The only bird with confirmed breeding evidence was Horned Lark, which likely nested within or very close to the Project Study Area. None of the bird species observed are rare or at risk in Nunavut. CBCL did not directly observe any non-avian vertebrates (e.g., mammals) in the study area during field investigations in 2024. Scat was observed belonging to Arctic Hare (*Lepus arcticus*) and several unidentified mammals, indicating that small mammals travel through and potentially forage in the Project Study Area. Traditional knowledge verified that lemmings, Arctic Hare, and Ermine (*Mustela ermine*) likely occur in the Project Study Area. A whale carcass and caribou jawbone observed in the study area in 2024 indicate that hunters use the proposed port location as a site for processing game. Community members indicated that there are no caribou on Broughton Island, but that caribou have been harvested across the channel on the mainland (i.e., Baffin Island).

5.2.4 Species at Risk and Species of Conservation Concern

Species at risk (SAR) receiving regulatory protection are listed as Special Concern, Threatened, Endangered, or Extirpated on Schedule 1 of the federal Species at Risk Act (SARA). Species of conservation concern (SoCC) include species not listed on Schedule 1 but assessed by COSEWIC as At Risk, and species with a conservation status of S3, S2, S1, or SH in Nunavut. Table 9 lists terrestrial SAR and SoCC (including marine and migratory birds) that could potentially be found within the Project Study Area. Sources consulted included field investigations, multiple desktop resources, traditional knowledge, SARA registry documents, land use planning documents (NPC 2021, 2023), eBird, iNaturalist, and NatureServe Explorer. Field investigations and community consultation determined that the Project Study Area generally contains low value habitat for SAR and does not contain critical habitat for any of the species in Table 9. No terrestrial SAR or SoCC were observed in the study area during field investigations in 2024, and traditional knowledge gathering did not identify the presence of any SAR or SoCC.

5.3 Freshwater

5.3.2 Freshwater Fish and Fish Habitat

No freshwater fish occur in the study area due to a lack of suitable freshwater features. Anadromous fish occur in marine waters in the study area but complete freshwater phases of their life cycle elsewhere.

5.4 Marine

5.4.2 Marine Fish and Fish Habitat

The Project study area is located in the Broughton Channel which divides Broughton Island from Baffin Island and is part of the Davis Strait. Open water season typically spans from mid-July to mid-October. Benthic habitats in the Project Study Area are composed primarily of coarse sand with some silt and gravel. CBCL conducted marine surveys in early September of 2024 to characterize and describe fish and fish habitat and document the existing marine environment in the Broughton Channel, including the intertidal zone. The intertidal zone in the Project Study Area is relatively steep sloped and composed of coarse sand in the upper zone and fine sediments with cobbles and boulders in the lower zone. Loose bands of algal wrack occur in upper and mid intertidal levels. There are no existing human structures in the intertidal zone in the Project Study Area. Subtidal benthic habitats in the Project Study Area are quite uniform and dominated by fine sediments with scattered boulders. Marine flora in the intertidal and subtidal zones is scarce due to seasonal ice scour and a lack of rocky substrates. Some community members harvest kelp and other edible seaweeds from the general area, but only small amounts of edible seaweed occur in the Project Study Area. Marine fauna in the Project Study Area includes polychaete worms and other invertebrates. A dense population of soft-shelled clams (*Mya truncata*) occurs offshore adjacent to the community of Qikiqtarjuaq, but they are not abundant in the Project Study Area. The only abundant zooplankton species found during surveys was *Pseudocalanus minutus*, a copepod considered to be a key grazer on Arctic shelves (Hopcroft 2009). Copepods are important food for pelagic fish such as Arctic Char, but they do not occur in high enough abundance for the Project Study Area to be an important foraging area. At least six marine fish species occur in the Broughton Channel, but only three were recorded in the Project Study Area during field investigations: Arctic Staghorn Sculpin (*Gymnocanthus tricuspis*), Fish Doctor (*Gymnelus viridis*), and Shorthorn Sculpin (*Myoxocephalus scoparius*). None of these are considered rare or at risk in Nunavut. The community noted Arctic Char, sculpin, and soft-shelled clams as important species for fishing and harvesting during IQ workshops in 2023. But the Project Study Area was not identified as an important location for these activities.

5.4.3 Marine Mammals

Parts of the Davis Strait east of Broughton Island are mapped as moderate to high sensitivity areas for Bowhead Whale, Beluga, and other toothed whales by DFO, but these species are rarely sighted in the Broughton Channel. No

The overall effects of the Project are expected to be positive and long-term, especially because of the significant benefits to community infrastructure and employment opportunities in Qikiqtarjuaq. Nonetheless, there may be residual negative effects on some aspects of the bio-physical environment as described below.

8.1.1 Atmospheric Although increases in ambient light will be mitigated to an extent, navigation lights and lighting around the port and access road will result in a net increase in ambient light during operation of the port. The potential effects of the predicted increase in ambient light on wildlife are expected to be negligible and there will be a significant positive effect on safety and security for the community.

8.1.2 Terrestrial There will be a permanent loss of approximately 6,000 m² of upland habitat within the footprint of the new port and access road. The quarry will result in a loss of some rocky upland habitat, but physiographic conditions in the quarry are expected to be generally similar to existing rocky upland habitat despite the change in local topography. The areas to be removed are not significant foraging, breeding, or movement areas for any wildlife, and no SAR or SoCC will be affected. The overall effect of the Project on the terrestrial environment of Broughton Island is expected to be negligible and there will be significant socio-economic benefits from the new deep-water port.

8.1.3 Marine There will be a permanent loss of or change in approximately 28,000 m² of marine habitat within the footprint of the new port. The areas to be removed are not identified as significant marine fish habitat, so the overall effect on marine life is expected to be negligible. The potential changes to marine habitat as a result of dredging are expected to be negligible within the context of the Broughton Channel as a whole. Installation of armour stone protection around the new port may increase the area of rocky marine habitat.

8.1.4 Socio-economic The effects of the Project on marine mammals in the Broughton Channel, which are hunted by local Inuit, was identified as a concern by Elders during consultation. While construction activities could disturb marine mammals if not mitigated (see Section 7.4.4), port operation is not expected to affect them, so no negative residual effects to traditional land use are anticipated. The new port will provide better facilities for local Inuit to harvest and process marine mammals, resulting in a net positive residual effect overall. Overall, the new deep-water port is expected to have significant positive residual effects on employment and business opportunities, community infrastructure, human health and safety, and traditional land use.

Project screening by NIRB is conducted to identify potential effects of the Project – including construction and operation – on elements of the biophysical, socioeconomic, and cultural environments. This section describes potential environmental effects and discusses mitigation measures that could be implemented to avoid or minimize effects. Table 11 summarizes the potential interactions between the Project and environmental Valued Components (VCs). Interactions may be positive or negative or, in some cases, both positive and negative. Negative interactions may be mitigable—resulting in no residual effects—but some are non-mitigable and are expected to result in unavoidable residual effects. Measurable environmental effects of the Project have been identified for the following VCs:

- 4Atmospheric Environment: Air quality, ambient noise, ambient light.
- 4Terrestrial Environment: Permafrost, soils and terrain, vegetation, wildlife and wildlife habitat.
- 4Freshwater: Surface water resources (hydrology and water quality).
- 4Marine Environment: Tidal and bathymetry, marine water and sediments, marine fish and fish habitat, marine mammals, SAR and SoCC.
- 4Socio-economic Environment: Employment and business opportunities, community infrastructure, human health and safety, community wellness and traditional land uses, archaeological and cultural historic resources.

The following VCs are not expected to experience measurable or significant environmental effects and are not evaluated further:

- 4Atmospheric Environment: Climate conditions.
- 4Terrestrial Environment: Ground stability, environmentally sensitive areas, SAR and SoCC.
- 4Freshwater: Freshwater fish and fish habitat.

Mitigation measures have been recommended for the potential effects identified in Table 11. These include changes to project configuration, engineering, and construction approaches, as well as other specific measures. Mitigation measures will be included in a Construction Environmental Management Plan (CEMP) detailing environmental protection requirements during construction. The CEMP details the environmental protection requirements and mitigation measures that will be adhered to on the Project site and provides a framework for the development and implementation of safe and environmentally responsible practices to reduce environmental effects of the Project. The CEMP provides an overall strategy and guidance for compliance and relevant environmental legislation and policies, as well as compliance with terms and conditions of permits and approval obtained. Construction personnel will be trained in the requirements of the CEMP and advised of the regulatory requirements and conditions for the Project construction. Mitigation measures are outlined in the following sections; however, further detail will be provided in the CEMP.

The only other development project currently proposed in Qikiqtarjuaq is a new hospital, which is in the planning phase with an anticipated opening date of 2030, the same year as the new deep-water port. The Municipality of Qikiqtarjuaq is also considering upgrading the existing potable water supply to meet future

demand. The coincident openings of these facilities will cumulatively be of significant socioeconomic benefit to the community. Cumulative effects on the biophysical environment are difficult to quantify, but as the new hospital will be located in the built-up part of the community it is not expected to result in a significant loss of terrestrial habitats or have residual effects on ambient light or other VCs. The upgraded water supply facility has not yet been designed, but is expected to be in the same or similar location as the existing facility. Past projects evaluated by the NIRB in the area are all scientific research projects involving no new construction. Between 2017 and 2014, the NIRB conducted a Strategic Environmental Impact Assessment of Baffin Bay and the Davis Straight to facilitate oil and gas exploration in the region, but no exploration projects are currently proposed in the area around Qikiqtarjuaq (Nunami Stantec 2019). A recent past activity was the construction of the new Qikiqtarjuaq Research Centre which is located in the built-up part of the community. The Project is expected to have overall net positive, long-term effects for the community of Qikiqtarjuaq, and may facilitate future projects of net benefit by expanding commercial access to the community.

Impacts

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1	polygon	Port Area
2	polygon	Quarry Area
3	polyline	Construction Camp Area

1	polygon	Port Area
2	polygon	Quarry Area
3	polyline	Construction Camp Area

