NIRB Application for Screening #126018
Kugaaruk Sealift Improvements Project

Application Type: New

Project Type: Coastal Infrastucture

Application Date: 12/10/2024 2:37:07 PM

Period of operation: from 2025-08-28 to 2050-10-26

Project Proponent:
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DETAILS

Non-technical project proposal description

English: The Hamlet of Kugaaruk has determined that the community's existing barge landing area, including the barge landing ramp and cargo laydown/storage area need to be expanded to accommodate future anticipated Hamlet sealift needs. In particular, the barge landing expansion project is proposed to include:Barge Landing AreaExpansion of the existing barge landing area (0.76ha) to 45m wide to accommodate two (2) barges concurrently.Boulder and bedrock blasting in the lower intertidal zone, followed by rockfill and gravel placement during low tide conditions.Sealift Laydown Area-Expansion of the existing on-land sealift laydown area from its current size (0.5 ha) to 1.0 ha.-Drainage improvements to the perimeter of the current sealift laydown area. Excavation and bedrock blasting as necessary, followed by gravel and rockfill placement to create the expanded level sealift laydown area.Sealift Laydown AreaWidening of the existing access road from 8 m to 10 m.Improving existing steep vertical grades (approx.. 10-12% grades) along approximately 100 m. of the existing access road,Excavation and bedrock blasting as necessary, followed by gravel and rockfill placement.Additional proposed Infrastructure (Optional)Security Office insulated with Generator, powered heating and lighting.Security fence surrounding laydown area (320 m).Road and caution signage in both English and Inuktitut.

French: Le hameau de Kugaaruk a déterminé que l'aire d'atterrissage actuelle des barges de la communauté, y compris la rampe d'atterrissage des barges et l'aire de dépôt et d'entreposage des marchandises, doit être agrandie pour répondre aux besoins futurs prévus du hameau en matière de transport maritime. En particulier, le projet d'agrandissement de l'aire d'atterrissage des barges est proposé pour inclure :Expansion de l'aire d'atterrissage des barges existante (0,76 ha) à 45 m de large pour accueillir deux (2) barges simultanément.Dynamitage des rochers et du substrat rocheux dans la zone intertidale inférieure, suivi de la mise en place de l'enrochement et du gravier dans des conditions de marée basse. Zone de dépôt du transport maritime-Extension de la zone de dépôt terrestre existante de sa taille actuelle (0,5 ha) à 1,0 ha.-Améliorations du drainage du périmètre de la zone de dépôt actuelle du transport maritime. Excavation et dynamitage du substrat rocheux au besoin, suivis de la mise en place de gravier et d'enrochement pour créer la zone de dépôt de transport maritime élargie. Zone de dépôt du transport maritimeÉlargissement de la route d'accès existante de 8 m à 10 m.Amélioration des pentes verticales abruptes existantes (environ 10 à 12 % des pentes) le long d'environ 100 m de la route d'accès existante,Excavation et dynamitage du substrat rocheux si nécessaire, suivis de la mise en place de gravier et d'enrochement. Infrastructure supplémentaire proposée (facultatif)Bureau de sécurité isolé avec une génératrice, chauffage et éclairage alimentés.Clôture de sécurité entourant la zone de dépôt (320 m).Signalisation routière et d'avertissement en anglais et en inuktitut.

Inuktitut: Hᐊᒻᒪᓚᖕᒐᑦ ᑰᒐᕐᔪᒃ ᓇᓗᓇᐃᖅᓯᓯᒪᔪᑦ ᓄᓇᓂᒻᒧᑦ ᒫᓐᓇᐅᔪᒥᑦ ᑲᓪᓚᓐᓄᑦ ᓄᓈᕐᕕᖕᒐ, ᐱᖃᓯᐅᑎᓪᓗᓂ ᑲᓪᓚᓐᓄᑦ ᒪᔪᕐᕕᖕᒐ/ ᑐᑦᑯᐃᕕᖕᒐ ᓇᒦᓐᓂᖕᒐ ᐊᖏᓪᓕᒋᐊᖅᑕᐅᓴᕆᐊᓪᓚᒃ ᐱᖃᓯᐅᔾᔨᔪᓐᓇᓂᐊᕐᓗᑎ ᓯᕗᓂᒃᓴᒥ ᓂᕆᐅᒋᓴᐅᔪᓂᑦ Hᐊᒻᒪᓚᒃᑯᓐᓄᑦ ᐅᒥᐊᕐᔪᐊᕈᖅᑎᑕᐅᓴᐅᔪᑦ ᐱᓴᐅᓴᕆᐊᖃᕐᓪᓚᖕᒋᓐᓄᑦ. ᐱᓗᐊᖅᑐᒥᑦ, ᑲᓂᓐᓄᑦ ᓄᓈᕐᕕᖕᒐ ᐊᖏᓪᓕᒋᐊᖅᑕᐅᓂᖕᒐᓄᑦ ᐱᓕᕆᐊᖅ ᑐᓯᕌᖕᒍᔪᖅ ᐱᖃᓯᐅᔾᔨᓗᓂ: ᑲᓪᓚᓐᓄᑦ ᓄᓈᕐᕕᖕᒐ ᓇᒦᓐᓂᖕᒐᐊᖏᓪᓕᒋᐊᖅᑕᐅᓂᖕᒐ ᒫᓐᓇᐅᔪᒥᑦ ᑲᓪᓚᓐᓄᑦ ᓄᓈᕐᕕᖕᒐ (0.76ha) ᑎᑭᓪᓗᓄᒍ 45ᒦᑕᐃᑦ ᓯᕕᑐᓂᖕᒐ ᐱᖃᓯᐅᔾᔪᔭᓐᓇᕐᓗᓂ ᒪᕐᕈᓐᓂᒃ ᕕ2) ᑳᓪᓐᓂᒃ ᐊᑕᐅᑦᑎᒎᖅᑐᓂᑦ. ᐅᔭᖅᑲᓂᑦ ᐊᒻᒪ ᓄᓇᐅᑉ ᐃᑭᖕᒐᓂ ᐅᔭᖅᑲᐃᑦ ᖄᖅᑎᑕᐅᖃᑦᑕᕐᓂᖕᒋᑦ, ᐃᓗᓪᓕᔪᖅᑕᐅᓕᕐᓗᓂ ᐅᔭᕋᓐᓄᑦ ᐊᒻᒪ ᐅᔭᕋᕈᓐᓄᑦ ᐊᑦᑎᓐᓂᖕᒐᓂ ᑎᓂᓐᓂᕐᒥ ᑎᓂᓐᖕᒐᑎᓪᓗᒍ.ᐅᒥᐊᕐᔪᐊᑰᖅᑎᑕᐅᔪᓄᑦ ᐃᓂᒥᖕᒐ ᓇᒦᓐᓂᖕᒐᐊᖏᓪᓕᒋᐊᖅᑕᐅᓂᖕᒐ ᒫᓐᓇᐅᔪᒥᑦ ᓄᓇᒥ ᐅᒥᐊᕐᔪᐊᑰᖅᑎᑕᐅᔪᓄᑦ ᐃᓂᖕᒐ ᓇᒦᓐᓂᖕᒐ ᒫᓐᓇᐅᔪᒥᑦ ᐊᖏᓂᖕᒐ (0.5 ha) ᑎᑭᓪᓗᒍ 1.0 ha. - ᑰᕝᕕᖕᒋᑦ ᐱᐅᓯᑎᕆᐊᖅᑕᐅᓂᖕᒋᑦ ᑭᓪᓕᖕᒋᓐᓂ ᒫᓐᓇᐅᔪᒥᑦ ᐅᒥᐊᕐᔪᐊᑰᖅᑎᑕᐅᔪᓄᑦ ᐃᓂᖕᒐ ᓇᒦᓐᓂᖕᒐ. ᐋᔭᖅᑕᐅᓂᖕᒋᑦ ᐊᒻᒪ ᓄᓇᐅᑉ ᐃᑭᖕᒐᓂ ᐅᔭᖅᑲᐃᑦ ᖄᖅᑎᑕᐅᖃᑦᑕᕐᓂᖕᒋᑦ ᐱᑕᖃᕆᐊᖃᖅᑎᑕᐅᔪᖅ, ᑭᖑᓂᐊᒍᑦ ᐅᔭᕋᓗᓐᓄᑦ ᐊᒻᒪ ᐅᔭᖅᑲᓄᑦ ᐃᓪᓗᓕᖅᑕᐅᓂᖕᒐ ᐊᖏᓪᓕᒋᐊᖅᑎᑦᑎᓗᑎ, ᓇᓕᒧᓕᖅᑎᓪᓗᒍ ᐅᒥᐊᕐᔪᐊᑰᖅᑎᑕᐅᔪᓄᑦ ᐃᓂᒥᖕᒐ ᓇᒦᓐᓂᖕᒐ. ᐊᑐᕆᐊᖕᒐᓯᕕᑦᑐᕆᐊᖅᑕᐅᓂᖕᒐ ᒫᓐᓇᐅᔪᒥᑦ ᐊᑐᕆᐊᖕᒐ ᐅᕙᓐᖕᒐᑦ 8 ᒦᑕᐃᑦ ᑎᑭᓪᓗᒍ 10 ᒦᑕᐃᑦ. ᐱᐅᓯᑎᕆᐊᖅᑕᐅᓂᖕᒐ ᓯᕕᖕᒐᓂᖕᒐ ᑐᑭᒧᑦ (ᖃᓂᒋᔭᖕᒐᓂ 10- 12% ᓯᕕᖕᒐᓂᖕᒐ) ᑭᓪᓕᖕᒐᒍᑦ ᖃᓂᒋᔭᖕᒐᓂ 100 ᒦᑕᐃᑦ ᒫᓐᓇᐅᔪᒥᑦ ᐊᑐᕆᐊᖕᒐ. ᐋᔭᖅᑕᐅᓂᖕᒋᑦ ᐊᒻᒪ ᓄᓇᐅᑉ ᐃᑭᖕᒐᓂ ᖄᖅᑎᑕᐅᓂᒥᖕᒋᑦ ᐱᑕᖃᕆᐊᖃᖅᑎᓪᓗᒍ, ᑭᖑᓂᐊᒍᑦ ᐅᔭᕋᓛᓄᑦ ᐊᒻᒪ ᐅᔭᖅᑲᓄᑦ ᐃᓗᓪᓕᖅᑕᐅᓗᓂ. ᐃᓚᒍᑖᒃᑲᓐᓂᖕᒋᑦ ᑐᓯᕌᖕᒍᔪᑦ ᐱᕐᑯᑎᕐᔪᐊᑦ (ᓇᓖᕌᕋᕐᓴᖅ)ᐅᐊᑦᑎᕈᓄ ᐊᓪᓚᕕᖕᒐ ᐅᑭᐊᕐᒥᓪᓕᒻᒧᑦ ᐊᐅᓚᐅᑎᒧᑦ, ᐆᓇᖅᑎᑎᑕᐅᔪᖅ ᐊᒻᒪ ᖃᐅᒪᖃᖅᑎᑕᐅᔪᖅ. ᐊᑦᑕᓇᐃᖅᓯᒪᓂᕐᒧᑦ ᐊᕙᓗᖕᒐ ᐊᕙᓯᓯᒪᔪᖅ ᐃᓂᖕᒐᓂ (320 m). ᐊᑐᕆᐊᖅ ᐊᒻᒪ ᐅᔾᔨᕈᓱᑎᑦᑎᓂᕐᒧᑦ ᑎᑎᖅᑲᐃᑦ.

Personnel

Personnel on site: 15

Days on site: 240

Total Person days: 3600
Operations Phase: from 2025-06-27 to 2026-10-27
Operations Phase: from 2025-08-28 to 2050-10-26
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
expanded area footprints	Harbour infrastructure	Municipal	Existing sealift barge ramp with existing sealift laydown area	Previously disturbed site, no archaeological potential	1.6 kilometres south of Kugaaruk
expanded area footprints	Offshore Infrastructure (port, break water, dock)	Municipal	Existing Sealift barge ramp and Sealift cargo area will be expanded to address ongoing and future supply needs of the Hamlet of Kugaaruk. Aggregates from the community quarry/borrow site will be hauled to the project area and placed in areas designated for expansion,	this is a previously disturbed site and is not anticipated to have no archaeological potential	1.6 km south of Kugaaruk

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Kugaarjuk	Michelle Byers MBA	SAO	2024-10-30

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Fisheries and Oceans Canada	Letter of Advice	Not Yet Applied		
Aboriginal Affairs and Northern Development Canada	Land Use Permit	Not Yet Applied		
Transport Canada	Approval	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	expansion of the sealift landing ramp will be conducted on land or in the dry during low tide conditions	
Land	all Project work will be conducted on land or in the dry during low tide conditions	

Project accomodation types

Community

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Excavator	1	35 tons	excavate aggregate and rock for loading into trucks
Bull Dozer	1	25 tons	for moving and spreading of aggregate matererials
Grader	1	20	leveling and grading of aggregate material for expansion of sealift ramp and laydown area
Front end Loader	1	20	Loading of aggregate into trucks
vibrator compactor	1	19 tons	for compacting of aggregate at expanded barge ramp and sealift laydown area
Water truck	1	15 cubic metres	for dust control and Project site and haul road
Dump Trucks	3	30 tons	Haul aggregate and rock from community quarry to project site for placement

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	9	300	2700	Liters	fuel for construction equipment

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	No water will be used for the construction of this expansion Project	Not Applicable

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Harbour infrastructure	Combustible wastes	10 cubic metres over 2 years	all combustible wastes will be transported to the hamlet landfill site for disposal	none required
Harbour infrastructure	Non-Combustible wastes	0.5 cubic metres	waste electrical wire will be returned to the Hamlet for re-use	None required
Harbour infrastructure	Sewage (human waste)	240 liters	Porta Potties or Hamlet facilities will be used. all sewage will be transported to the Hamlet sewage lagoon	None required

Environmental Impacts:

Positive impacts will be achieved for the residents of the Hamlet of Kugaaruk as the sealift expansion project will permit an increase in the volume and variety of cargos that can be offloaded on an annual basis. A locally negative/non mitigable impact will occur to the small area of benthic intertidal marine habitat at the end of the current barge ramp, due to burial of this habitat by fill and aggregate material used to widen the end of the barge ramp. Negative/mitigable potential impacts on fish will be mitigated by conducting all potential in-water work by conducting all work "in the dry" during low tide conditions .

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

The Hamlet of Kugaaruk has determined that the community's existing barge landing area, including the barge landing ramp and cargo laydown/storage area need to be expanded to accommodate future anticipated Hamlet sealift needs. In particular, the barge landing expansion project is proposed to include:Barge Landing AreaExpansion of the existing barge landing area (0.76ha) to 45m wide to accommodate two (2) barges concurrently.Boulder and bedrock blasting in the lower intertidal zone, followed by rockfill and gravel placement during low tide conditions.Sealift Laydown Area-Expansion of the existing on-land sealift laydown area from its current size (0.5 ha) to 1.0 ha.-Drainage improvements to the perimeter of the current sealift laydown area. Excavation and bedrock blasting as necessary, followed by gravel and rockfill placement to create the expanded level sealift laydown area.Sealift Laydown AreaWidening of the existing access road from 8 m to 10 m.Improving existing steep vertical grades (approx.. 10-12% grades) along approximately 100 m. of the existing access road,Excavation and bedrock blasting as necessary, followed by gravel and rockfill placement.Additional proposed Infrastructure (Optional)Security Office insulated with Generator, powered heating and lighting.Security fence surrounding laydown area (320 m).Road and caution signage in both English and Inuktitut.

SECTION D2: Facility Construction

Construction of the sealift expansion facilities will involve the hauling of aggregate materials from the existing community quarry/borrow site and the placement, leveling and compaction of this material in the designated areas to complete the planned expansion of the sealift barge ramp and associated sealift cargo storage area.

SECTION D3: Facility Operation

the expanded facilities will continue to be operated by assigned Hamlet personnel as per the current approach

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

the barge ramp expansion will permit two barges to offload their cargos concurrently and to reduce the total time for offloading cargo

SECTION H2: Disposal At Sea

No disposal at sea will occur in relation to this sealift expansion project

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

Kugaaruk is characterized by coastal mountains and well-vegetated lowlands with several lakes, rivers, and pondsthroughout the region, which provide important habitat for a variety of plants and animals2. Land-fast lead systems areareas of separated land-fast ice and pack ice and can be found throughout this region. Overall, Arctic temperatures areincreasing and recently much of Nunavut experienced unseasonably warm summer temperatures3. Residents are alsoexperiencing milder winters and fewer extreme cold temperatures. Due to glacial retreat in Kugaaruk, the land isrebounding to its former height, resulting in what appears to be declining sea levels.

Description of Existing Environment: Biological Environment

The wildlife economy plays an important role in Kugaaruk, with many residents supporting themselves by hunting, fishing, trapping, and gathering. Community members also participate in wage-based economic activities. Important coastal resources in the Kugaaruk region include bowhead whales, narwhals, seals, polar bears, and Arctic char, with residents sometimes travelling long distances to reach hunting and fishing grounds. The community's hunting and fishing area includes Pelly Bay, Boothia Peninsula, Committee Bay, Rae Strait, and The Gulf ofBoothia. Currently there are no national or territorial parks located near Kugaaruk, however, several fishing and huntingcamps exist nearby.

Description of Existing Environment: Socio-economic Environment

According to the most recent census in 2021, the population of Kugaaruk was 1033. Kugaaruk is a traditional Central Inuit community. Until 1968, the people followed a nomadic lifestyle. The population is approximately 97% Inuit and most people self-identify as Netsilik. The residents blend a land based lifestyle with modern technology and interests. Most families supplement their diet with ringed seal, caribou, and Arctic char. Other wildlife includes narwhal, beluga, bowhead whale, polar bears, wolverine and peregrine falcons.[8][20][21] Despite the isolation of the community, the traditional language, Inuktitut, is declining. Most people 30 and over speak Inuktitut as their first language, but the language is not being passed on to their children. In most households, a mixture of English and Inuktitut is spoken. Children understand their parents and grandparents, but respond to them in English. One goal of the Nunavut educational system is to encourage and spread the use of Inuktitut.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

The Sealift expansion project involves the hauling of aggregate materials to the existing sealift barge ramp and associated cargo laydown area. Primary mitigation measures to be employed will include: dust control through the application of water as needed from a water truck; all in-water work will be conducted in the dry during low tide conditions to minimize impacts on fish. Blasting of bedrock at the end of the existing barge ramp will be conducted in the dry during low tide conditions in conformance with DFO guidelines; all fuel will be loaded into construction equipment at the Hamlet and not at the construction site to minimize the potential for a fuel spill to occur at the construction site.

Cumulative Effects

this project involves the expansion of the existing sealift facilities to accommodate the growing future community supply needs. no cumulative effects are anticipated to occur as a result of this projec

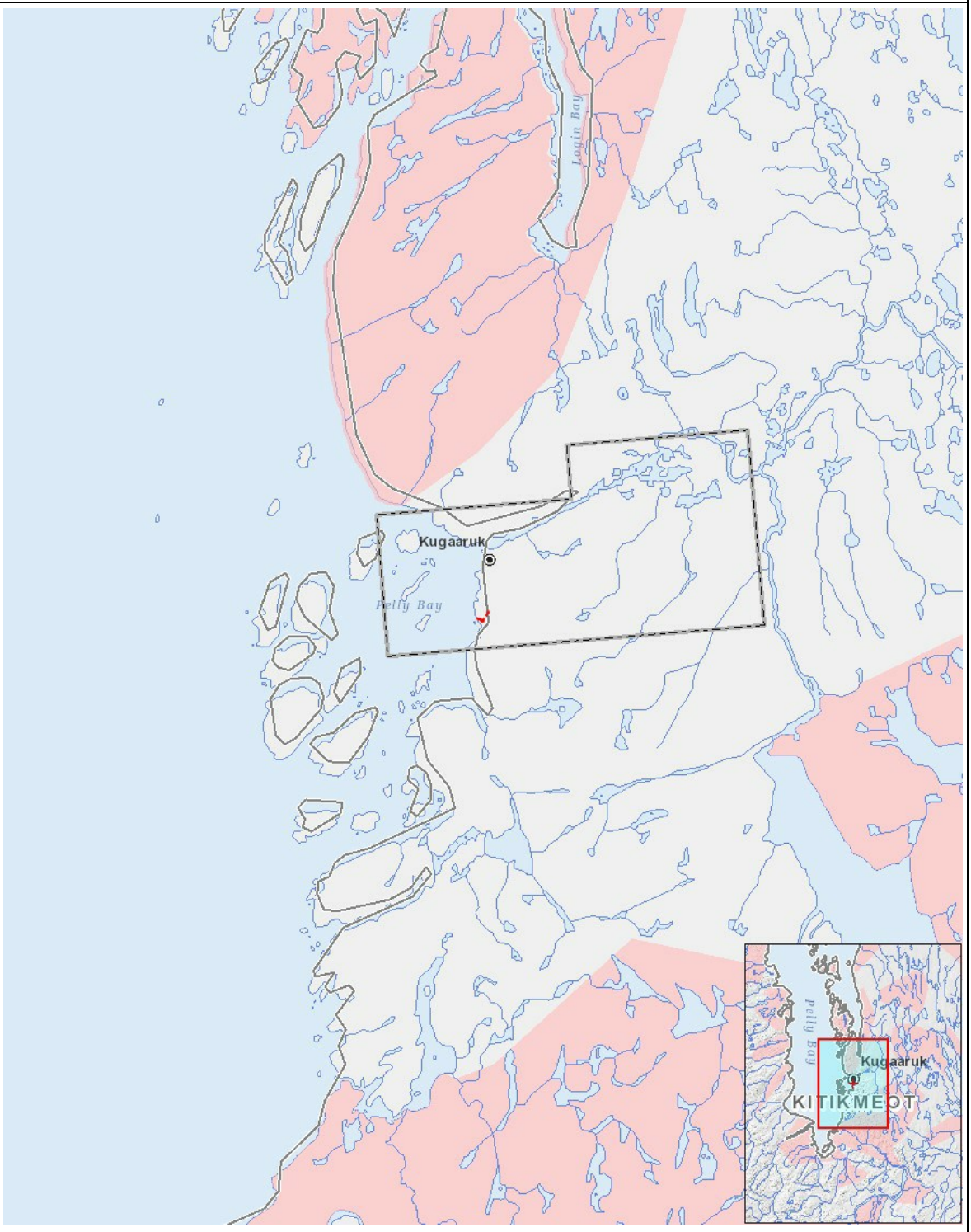
Impacts

Identification of Environmental Impacts

	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
Construction																									
Harbour infrastructure		-	P	-	-	-	-	-	M	-	-	M	M		-	-	-	M	-		-	P	P	P	P
Operation																									
Harbour infrastructure		-	P	-	-	M	-	-	-	-	-	M	M		-	-	-	-	-		-	P	P	P	P
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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

Project Location



List of Project Geometries

1	polyline	expanded area footprints
2	polyline	expanded area footprints
3	polyline	expanded area footprints
4	polyline	expanded area footprints