Demande de la CNER faisant l'objet d'un examen préalable #126224

Coastal Baseline Inventory: Benthic community composition and food web structure in waters adjacent to Qikiqtarjuaq, NU 2025.

Type de demande : New

Type de projet: Scientific Research

Date de la demande : Wednesday, August 27, 2025

Period of operation: from 2025-08-15 to 2026-10-15

Promoteur du projet:
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DÉTAILS

Description non technique de la proposition de projet

Anglais: The project will use a bottom trawling, traps and baited cameras to collect baseline data on benthic habitats and species (fishes and invertebrates) near Qikiqtarjuaq. All work will be completed off of a vessel-based platform. The collected data will allow assessments of current and potential impacts of climate change on the benthic community. The bottom trawl is an efficient gear for catching Greenland Halibut, sculpins and shrimp, the traps will target shrimp and benthic invertebrates (e.g. whelk), and the camera will collected data on urchins, crabs and other species that are not susceptible to the trawl, as well as data on habitat characteristics (e.g. bottom material, roughness) and effects of sampling equipment on habitats. The combination of sampling gear creates an excellent opportunity to observe any new species in the area that may be expanding because of climate change. Tissue samples will be taken from all species encountered for stable isotope analysis to determine food web structure and linkages. Fish stomachs will be examined to determine their diets, which will be compared with the results of the stable isotope analyses.The objectives of the project are to 1) determine which benthic fish and invertebrate species are currently present near Qikiqtarjuaq; 2) quantify fish diets and food web structure and dynamics; 3) quantify habitat characteristics and conditions, and assess impacts of sampling gears on habitats. Sampling would occur during the open water season (August or September) using a contracted research or fishing vessel; sampling would require approximately 7 days each year (vessel with 24 hour operations capacity). Reports on fish and invertebrate species encountered will be provided each year within a month following fieldwork. Specimens collected will be shipped to Winnipeg for diet and stable isotope analyses during the winter following collection. A report on the diet and food web analyses will be provided at the conclusion of the project (after 3 or 4 years of sampling) and will include consideration of year-to-year variability in the results. These baseline data on the benthic community and food web interaction will capture the current conditions at Qikitarjuaq and allow examinations of the effects of climate change or human development activities on benthic habitats and communities. Data on potential commercial species, such as Greenland Halibut and Northern Shrimp, will also be available to the community to support fishery development. Three years of sampling is considered the minimum to account for year-to-year variation in catches and environmental conditions when analyzing the data, four years would improve that consideration of year-to-year variation. Similar trawling surveys, but without traps and baited cameras, were conducted near Qikiqtarjauq in 2017-2019. Data form those surveys will be combined with the proposed work. Some specimens from those earlier years have been used for stable isotope analyses, but not stomach content analyses. The addition of the trap collections and baited camera observations will help put the trawling results in context regarding habitat structure and conditions.Methods: Bottom trawling, deployment of traps and a baited camera system, CTD casts, and zooplankton tows will be conducted using a vessel based platform. Two people from the Nattivak HTA will be contracted as members of the science crew during the survey. Bottom trawls will be run for 15 min bottom contact; 6-8 trawls can be completed in one day. At the end of each day a string of fish and invertebrate traps (4 traps) will be deployed; the traps will be retrieved ~12 h later, at the start of the next morning. At each sampling station a baited camera will be deployed to characterize the sea floor and record observations of species that are not caught in the trawl and traps, a CTD cast will be conducted to obtain a vertical profile of the water column, and a vertical zooplankton net tow will collect samples of the local zooplankton community. This sampling program will be coordinated with other coastal monitoring programs to minimize overlap in sampling and to provide as much complementary sampling as possible (i.e. collect additional samples that would aid other projects. Stable isotope analyses involve chemical sampling and use of an isotope analyzer in the lab. Two members of the science crew will be contracted through the Nattivak HTA. These crew members will be trained in use of the bottom trawl, fish traps, baited camera, zooplankton net, CTD and processing of the sample catch.Deliverables: •Map of sampling locations showing dominant species in the catches/observations.•Annual report to the Nattivak HTA on sampling activities, catches and food web and genetic analyses.•Annual DFO Technical Reports describing the fieldwork completed and data.•Primary publication describing the benthic community and food web at Qikiqtarjuaq.•Primary publication comparing benthic communities and food webs among Nunavut communities.

Français: Description du projet : Le projet utilisera un chalutage de fond, des pièges et des caméras appâtées pour recueillir des données de base sur les habitats et les espèces benthiques (poissons et invertébrés) près de Qikiqtarjuaq. Tous les travaux seront effectués à partir d'une plate-forme

rattachée à un navire. Les données recueillies permettront d'évaluer les conséquences actuelles et potentielles des changements climatiques sur la communauté benthique. Le chalut de fond est un engin efficace pour attraper le flétan du Groenland, les chabots et les crevettes. Les pièges cibleront les crevettes et les invertébrés benthiques (p. ex. le buccin), et la caméra recueillera des données sur les oursins, les crabes et d'autres espèces qui ne sont pas sensibles au chalut, ainsi que des données sur les caractéristiques de l'habitat (p. ex. matériau de fond, rugosité) et les effets de l'équipement d'échantillonnage sur les habitats. La combinaison des engins d'échantillonnage offre une excellente occasion d'observer toute nouvelle espèce dans la région qui pourrait s'étendre en raison des changements climatiques. Des échantillons de tissus seront prélevés sur toutes les espèces rencontrées pour l'analyse des isotopes stables afin de déterminer la structure et les liens du réseau trophique. Les estomacs des poissons seront examinés pour déterminer leur régime alimentaire, qui sera comparé aux résultats des analyses d'isotopes stables. Les objectifs du projet sont de 1) déterminer quelles espèces de poissons et d'invertébrés benthiques sont actuellement présentes près de Qikiqtarjuaq; 2) quantifier le régime alimentaire des poissons et la structure et la dynamique du réseau trophique; 3) quantifier les caractéristiques et les conditions de l'habitat et évaluer les impacts des engins d'échantillonnage sur l'habitat. L'échantillonnage aurait lieu pendant la saison des eaux libres (août ou septembre) à l'aide d'un bateau de recherche ou de pêche sous contrat. L'échantillonnage nécessiterait environ 7 jours par année (navire d'une capacité d'exploitation en tout temps). Des rapports sur les espèces de poissons et d'invertébrés rencontrées seront fournis chaque année dans le mois suivant les travaux sur le terrain. Les échantillons recueillis seront expédiés à Winnipeg pour des analyses de régime alimentaire et d'isotopes stables au cours de l'hiver suivant la collecte. Un rapport sur les analyses de l'alimentation et des réseaux trophiques sera fourni à la fin du projet (après 3 ou 4 ans d'échantillonnage) et tiendra compte de la variabilité des résultats d'une année à l'autre. Ces données de référence sur l'interaction entre les communautés benthiques et les réseaux trophiques permettront de saisir les conditions actuelles à Qikitarjuaq et d'examiner les effets des changements climatiques ou des activités de développement humain sur les habitats et les communautés benthiques. Des données sur des espèces commerciales potentielles, comme le flétan du Groenland et la crevette nordique, seront également mises à la disposition de la communauté pour soutenir le développement des pêches. Trois ans d'échantillonnage sont considérés comme le minimum pour tenir compte de la variation d'une année à l'autre des prises et des conditions environnementales lors de l'analyse des données, quatre ans amélioreraient cette prise en compte de la variation d'une année à l'autre. Des relevés au chalut similaires, mais sans pièges ni caméras appâtées, ont été effectués près de Qikiqtarjauq en 2017-2019. Les données recueillies lors de ces enquêtes seront combinées avec les travaux proposés. Certains échantillons de ces premières années ont été utilisés pour des analyses d'isotopes stables, mais pas pour analyses de contenus stomacaux. L'ajout des collections de pièges et des observations par caméra appâtée aidera à mettre les résultats du chalutage en contexte en ce qui concerne la structure et les conditions de l'habitat. Méthodes : Le chalutage de fond, le déploiement de pièges et d'un système de caméra appâtée, les lancers de conductivité, de température et de profondeur (CTP) et les remorquages de zooplancton seront effectués à l'aide d'une plate-forme rattachée à un navire. Deux personnes de l'Association de chasseurs et de trappeurs de Nattivak seront embauchées comme membres de l'équipe scientifique pendant le relevé. Les chaluts de fond seront exploités pendant 15 minutes en contact avec le fond; de 6 à 8 chaluts peuvent être effectués en une journée. À la fin de chaque journée, une série de quatre pièges à poissons et à invertébrés sera déployée. Les pièges seront récupérés environ 12 heures plus tard, au début de la matinée suivante. À chaque station d'échantillonnage, une caméra appâtée sera déployée pour caractériser le fond marin et enregistrer les observations des espèces qui ne sont pas prises dans le chalut et les pièges, un lancer de CTP sera effectué pour obtenir un profil vertical de la colonne d'eau, et un trait vertical de filet à zooplancton permettra de recueillir des échantillons de la communauté zooplanctonique locale. Ce programme d'échantillonnage sera coordonné avec d'autres programmes de surveillance côtière afin de réduire au minimum le chevauchement de l'échantillonnage et de fournir autant d'échantillonnage complémentaire que possible (c.-à-d. prélever des échantillons supplémentaires qui aideraient d'autres projets). L'analyse des isotopes stables implique l'échantillonnage chimique et l'utilisation d'un analyseur d'isotopes en laboratoire. Deux membres de l'équipe scientifique seront embauchés par l'intermédiaire de l'Association de chasseurs et de trappeurs de Nattivak. Ces membres d'équipage seront formés à l'utilisation du chalut de fond, des pièges à poissons, de la caméra appâtée, du filet à zooplancton, de la CTP et du traitement des captures d'échantillons. Livrables : •Carte des lieux d'échantillonnage montrant les espèces dominantes dans les captures/observations. •Rapport annuel à l'Association de chasseurs et de trappeurs de Nattivak sur les activités

d’échantillonnage, les captures et les analyses du réseau trophique et génétique. •Rapports techniques annuels du MPO décrivant les travaux sur le terrain et les données. •Publication primaire décrivant la communauté benthique et le réseau trophique de Qikiqtarjuaq. •Publication primaire comparant les communautés benthiques et les réseaux trophiques des communautés du Nunavut.

Inuktitut: ᐱᓕᕆᐊᖓᔪᖅ ᐊᑐᖏᓕᖅᑐᖅ ᐃᖅᑲᖓᓂ ᐅᒥᐊᖏᓚᐅᔪᓄᑦ, ᒥᑭᒋᐊᓂᒃ ᐊᒻᒪᓗ ᐊᐃᓕᓕᐅᑕᑎᓄᑦ ᓄᐊᖏᑎᓗᑎᒃ ᑐᑭᓯᐊᖅᑎᓴᓂᒃ ᐃᖅᑲᖓᓂ ᓇᔪᑏᐅᔪᓂᒃ ᐊᒻᒪᓗ ᐅᒪᔪᓂᒃ (ᐃᖅᑲᓗᐃᑦ ᐊᒻᒪ ᖃᒥᖏᓗᖅᓯᑐᑐᑦ) ᖃᑭᖅᑕᖏᔪᐊᓕᒃ ᓴᓂᕆᔨᒃ. ᐃᖅᑲᓇᐃᔨᖓᔪᓕᒪᓂᐊᑦ ᐱᖁᓱᖅᑕᐅᓂᐊᖏᑦᑐᑦ ᐃᖅᑲᓚᓯᔪᓐᓇᑦ ᐅᒥᐊᖏᓚᒥᒃ. ᖃᐅᔨᓴᖅᑎᓄᑦ ᓄᐊᑕᐅᓂᒃ ᐱᙵᖅᑎᓂᐊᖏᑦᑐᓂᒃ ᐊᖏᖅᑎᓂᒋᔭᖅᑐᓂᒃ ᓯᓚᐃᓐᓇᖅᑐᓂᒃ ᓴᓇᓕᕆᔨᒃᑯᑦ ᐊᑐᖅᑭᒃᑯᑦ ᐱ

ᐅᵇᑐᑦᕃᐃᐅᓯᓗᖅᑐᓂᵇ ᑕᑯᐴᐅᑎᑎᑦᑎᓴᖅ ᐅᒪᔪᓂᵇ ᐱᕆᐅᓯᒪᔪᓂᵇ/ᑕᑯᕆᐅᓯᒪᔪᓂᵇ. •ᐊᑦᕃᔪᑕᒧᖅᓯᐅᑦ ᐅᓂᵇᑲᓪᐊᖅ ᓇᑦᑎᐃᵇ ᐅᒪᔪᕐᓂᐊᑎᵇᑯᓗᑦ ᐅᵇᑐᑦᕃᐃᓂᕐᒧᑦ ᐱᓪᓗᐊᖅᓯᐅᒪᔪᑦ, ᐱᕆᐅᓯᒪᔪᓂᵇ ᐊᒻᒪᓗ ᓂᕈᑭᕆᐅᔪᑦ ᐊᒻᒪᓗ ᑭᖓᔪᖅᓴᓗᓂᑦ ᖃᐅᔨᕆᕐᓗᑦ ᖃᐅᐅᔪᕐᓂᐅᔪᓂᵇ. •ᐊᑦᕃᔪᑕᒧᒪᑦ ᐃᒪᕈᒥᐅᑕᓪᓗᓇᵇᑯᑦ ᐅᓂᵇᑲᖏᑦ ᓇᓗᓇᐃᕆᐃᔪᑦ ᓄᓇᒥ ᐱᓪᓗᐊᖅᓯᐅᒪᔪᓂᑦ ᐱᕆᕃᖅᑕᐅᓯᒪᔪᓂᵇ ᐊᒻᒪᓗ ᑐᑭᓯᐊᕐᑭᑎᕆᓂᵇ. •ᐱᒋᐊᖅᓴᕆᓂᖓᓂ ᕆᖃᑎᑕᐅᓯᒪᔪᖅ ᓇᓗᓇᐃᕆᐃᔪᖅ ᐃᖅᑲᖓᓂ ᓇᐸᒪᒃᐅᓯᒪᔪᑦ ᐅᑭᖅᑕᕐᕕᒃ. •ᐱᒋᐊᖅᓴᕆᓂᖓᓂ ᑎᑎᕆᖅᓯᒪᔪᑦ ᒥᕆᐃᑕᐅᓯᒪᔪᑦ ᐃᖅᑲᖓᓂ ᓇᐸᒪᒃᐅᓯᒪᔪᑦ ᐊᒻᒪ ᓂᕈᑭᕆᐅᔪᑦ ᓄᓇᕗᒻᒥ ᓄᓇᓕᕐᓂᓂ.

Personnel

Personnel on site: 14
Days on site: 7
Total Person days: 98
Operations Phase: from 2025-08-15 to 2026-10-15

Activités

Emplacement	Type d'activité	Statut des terres	Historique du site	Site à valeur archéologique ou paléontologique	Proximité des collectivités les plus proches et de toute zone protégée
Area in which research stations will be selected and represented in our research	Scientific/International Polar Year Research	Marine	N/A	N/A	approximately 20 km from the community of Qikiqtarjuaq, NU

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Qikiqtarjuaq	Ann Sanguya	Nattivak HTO	2025-06-25
Qikiqtarjuaq	Pasa Aulaqiaq	Nattivak HTO	2025-08-21

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

South Baffin

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Pêches et Océans Canada	This is the only other license as indicated by Nunavut Planning Commission required to complete this work.	Applied, Decision Pending		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	Canadian North flight into Qikiqtarjuaq (food will be purchased by the research team in Qik. while at the research station. We will be using the research station's transportation). We are disembarking the research vessel once our project is completed in Iqaluit and will flight home from this location. Taxis and food will be purchased in Iqaluit before flying home.	
Water	Patrick and William research vessel is arriving from Newfoundland to complete this work and will return to Newfoundland once the work is completed. They will be purchasing food to resupply the vessel as needed.	
Land	Qikiqtarjuaq Research Station (beginning of the trip 4 days), We are leaving the vessel in Iqaluit and no accommodations are booked for going home presently	

Project accomodation types

Collectivité

Autre,

Utilisation de matériel

Équipement à utiliser (y compris les perceuses, les pompes, les aéronefs, les véhicules, etc.)

Type d'équipement	Quantité	Taille – Dimensions	Utilisation proposée
Research Vessel	1	30.4 m	The research vessel proposed to do this work is the Patrick and William. The vessel selected has A-frame and winch capacities. It has the capacity to trawl (trawling net and warp), as well as longlining equipment (groundline and float lines). The vessel has a covered deck space and indoor lab area to accommodate science work. It has all safety certifications and standards as per Transport Canada regulations.
zoplankton net	1	2m	Collection of zooplankton samples at depth.
longlines	2	1 km	Collection of Greenland Halibut for biological sample collection (length weight sex and number)
towed camera system	1	1m X 0.5m	To collect 4K images of the ocean floor up to 350 m depth.
Beam Trawl	1	4-4.5 m width by	To collect benthic fish and invertebrates for biodiversity assessments
Marine Weigh Scale	1	50 cm X5cm	To weigh biomass of samples
Satellite tags	4	5 cm by 10 cm	For use with Greenland Halibut
Surgical Equipment	8	10 cm length	suture fish after satellite tag is attached

Décrivez l'utilisation du carburant et des marchandises dangereuses

Décrivez l'utilisation de carburant :	Type de carburant	Nombre de conteneurs	Capacité du conteneur	Quantité totale	Unités	Utilisation proposée
Diesel	fuel	1	21000	21000	Gallons	The fuel tanks of the vessel is capable of storing enough fuel to sustain operations for up to 60 days.
Oil and Lubriation	hazardous	5	5	25	Gallons	Engine Oil and lubrication

products						products will be used and stored to support the proper function of the vessel's engine.
formaldehyde	hazardous	1	4	4	Liters	to preserve samples
MS222	hazardous	1	4	4	Liters	Anesthetize fish for satellite tagging
betadine	hazardous	1	2	2	Liters	clean sutures and satellite tags

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
3	Desalination of seawater to freshwater onboard the vessel. Vessel is equipped with water makers, capable of producing fresh potable water from seawater.	Vessel is equipped with advanced water makers, capable of producing fresh potable water from seawater. This ensures a continuous supply of drinking water and fresh water for other needs.

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Scientific/International Polar Year Research	Eaux grises	246 liters per day per person	Greywater will be released back into the marine environment in designated areas/zones where this is allowed. All marine transport laws will be followed. Greywater will include cleaning and rinsing of the vessel deck after sampling procedures are completed.	No additional treatment procedures are identified.
Scientific/International Polar Year Research	Déchet dangereux	1-2% of heavy fuel oil burned ends up as sludge	All oil and lubricant products used will be stored safely in appropriate containers and disposed of when the vessel reaches the home port. Disposal at the port will follow provincial and federal guidelines for safe disposal.	No additional treatment procedures will occur.
Scientific/International Polar Year Research	Déchets non combustibles	1.4-2.3 Kg per person per day.	All non-combustible waste will be stored on board the vessel and disposed when the vessel reaches a port. Disposal at the port will follow provincial, territorial and federal guidelines for safe disposal.	No additional treatment procedures will occur.
Scientific/International Polar Year Research	Mort-terrain (sol organique, déchets, résidus)	60-80 Kg per tow	Overburnden (organic waste products from trawling and food) will be released back into the marine environment in designated areas/zones where this is allowed. All marine transport	No additional treatment procedures will occur.

			laws will be followed.	
Scientific/International Polar Year Research	Eaux usées (matières de vidange)	30 liters per person per day	Sewage will be stored in a holding tank and released into the marine environment in designated areas where this is allowed. All marine transport laws will be followed regarding waste and dumping of waste.	no other treatment procedures are identified.

Répercussions environnementales :

1.) Impact of Water Bodies: a. Antifouling paint pollution b. Oil spill c. NIS: Leading to the loss of Arctic biodiversity, local extinction, and decline in species richness, etc., d. Wastewater discharge. The vessel will follow all guidelines provided by Transport Canada to minimize impacts to water bodies. This includes ensuring oil is stored properly and safely while on the vessel, minimizing risks of causing oil spills by following standard operating procedures to reduce risks of accidents. The vessel ballast water will only be exchanged in specific ballast water exchange zones designated by maritime guidelines and the federal Canadian Government. Discharge of wastewater will occur in designated areas. The captain and crew will be familiar with all safety procedures and maritime governance rules to reduce impacts to water bodies. 2. Impact of air emissions (Air pollution etc.). The vessel will maintain proper functions of vessel engine and muffler, and all other mechanical aspects of the vessel to ensure that air pollution is minimized. The vessel will follow Standard Operating procedures to reduce accidental occurrences that would increase air pollution. The vessel captain and crew will know maritime regulations for the region and ensure that the standard of operation is maintained in accordance with the rules. 3. Impact on animal survival: a. Noise pollution and b. Light pollution. The vessel will follow DFO and Nunavut guidelines to maintain a distance of 100 meters, stay clear and move away from marine mammals. Vessels will also slow their speed if they do encounter a marine mammal while transiting an area to ensure that the marine mammal can move away from the noise and avoid a collision strike. Areas with high concentrations of marine mammals will be abandoned and no fishing equipment will be placed in the water during their presence in the region. Light pollution will be minimized by reducing lights during evening work events.

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

Description de l'environnement existant : Environnement physique

The physical environment is the marine environment adjacent to the community of Qikiqtarjuaq and extends outwards to the NSA boundary. The study region is in the general proximity to the Auyuittuq National Park. The study region ranges in depth from 200m to 1000m.

Description de l'environnement existant : Environnement biologique

The biological environment includes marine fish, zooplankton, marco benthos and other marine organisms. The benthic habitat is disturbed during trawling events. Spotted Wolffish, a species at risk, live in this region and are captured in previous trawling events.

Description de l'environnement existant : Environnement socio-économique

The study area is adjacent to the community of Qikiqtarjuaq. We are working in the marine environment where community members may hunt for marine mammals or fish for anadromous Arctic Char or other marine species.

Miscellaneous Project Information

All work is done in collaboration with the Hunters and Trappers Organisation. Our research is designed to support interests in emerging marine fisheries as well as any concerns they may have regarding the presence of a research vessel in the region. All work conducted has been approved by the HTO in advance of the field season.

Identification des répercussions et mesures d'atténuation proposées

1.) Remain out of all marine sanctuaries, marine protected areas and any other land identified as protected. Sampling adjacent to the boundaries of these areas will be limited.2. All Species at Risk (Wolffish) will be live released immediately upon capture. 3. If community members are hunting in an area - the vessel will move away and work in another area. We will consult with the HTO to ensure that we do not disturb specific organised hunts and areas that may be used by community members while work is being conducted.4.) We are trawling for a minimal amount of time to ensure that we minimize impacts of habitat on the ocean floor. The length of time needed to capture the wide range of biodiversity is approximately 15 minutes per tow. This is adhered to while conducting scientific research.

Répercussions cumulatives

Habitat damage to the ocean floor is the largest cumulative effect from trawling and marine floor disturbance.

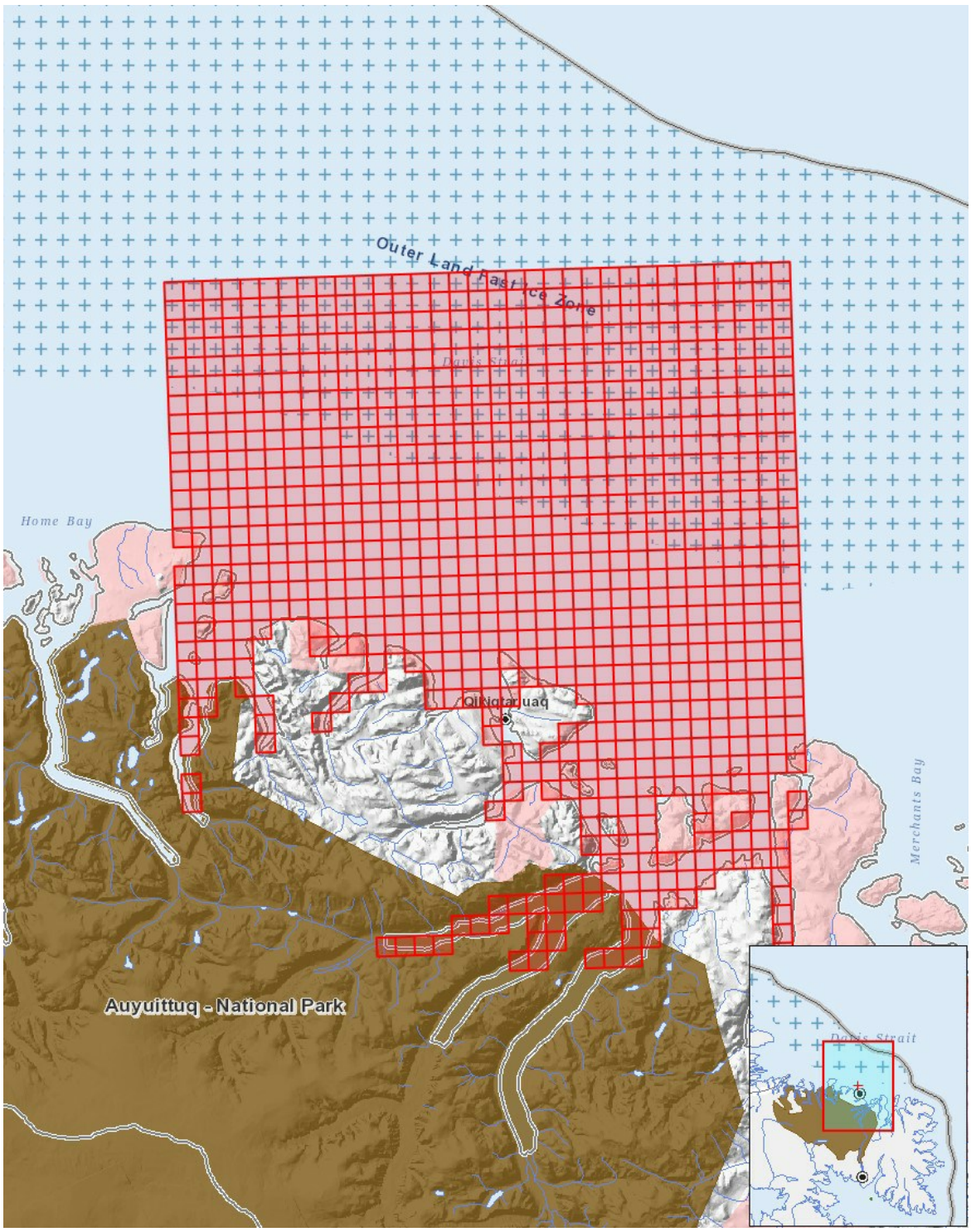
Impacts

Identification des répercussions environnementales

	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																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Exploitation																									
Scientific/International Polar Year Research		-	-	-	-	M	-	-	-	-	-	N	N		-	-	-	N	-		-	P	-	-	-
Désaffectation																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)

Site du projet



Liste des géométries de projet

1	polygon	Area in which research stations will be selected and represented in our research