NIRB Application for Screening #126421

Coastal dynamics in Kugluktuk and Grise Fiord (Aujuittuq), Nunavut.

Application Type:	New
Project Type:	Scientific Research
Application Date:	Friday, March 20, 2026
Period of operation:	from 2026-04-01 to 2028-04-30
Project Proponent:	Stephanie Coulombe Polar Knowledge Canada CHARS Campus, 1 Uvajuq Road, PO Box 2150 Cambridge Bay Nunavut X0B0C0 Canada Phone Number:: 867-983-6676, Fax Number::

DETAILS

Non-technical project proposal description

English: This project focuses on coastal and environmental changes identified as priorities by the Nunavut communities of Ausuittuq (Grise Fiord) and Kugluktuk. In Ausuittuq, concerns revolve around storm impacts and coastal flooding, while in Kugluktuk, erosion near the Coppermine River Delta presents increasing challenges for infrastructure, cultural sites, and community safety. The project brings together local research partners and scientists from several universities to study and monitor environmental conditions in both communities. Research activities concentrate on coastal erosion and flooding, permafrost conditions, ocean processes, and related environmental risks. The project includes fourteen specific objectives, organized into four main themes: (1) supporting community adaptation to coastal change; (3) studying coastal and permafrost conditions; (3) studying ocean physics, geochemistry, and marine ecosystems; and (4) assessing risks associated with rockslides. Field campaigns are scheduled for May and later in August. Most field approaches, activities, and sampling methods will remain consistent with previous years.In 2026, the research scope will expand to build on ongoing work by adding new objectives focused on oceanographic processes influencing the local marine environment. The project will investigate the physical dynamics of ocean waters, including stratification, mixing, freshwater and heat content, and biogeochemical properties, to better understand the impacts of sea ice loss, warming, storms, runoff, and deep-water inflows on marine ecosystems. The project will also start monitoring oceanic water masses in Jones Sound and along eastern Ellesmere Island to improve regional ocean circulation modelling and provide Inuit-acquired baseline data for the Tuvaijuittuq Marine Protected Area. These objectives will be supported by profiled and moored sensors and targeted water sampling for chemical and microbial analyses. Community engagement will extend through a workshop scheduled for May 2026 to share project findings, showcase decision-support tools, and collect local knowledge on environmental change and adaptation. Interviews and surveys will also record community perspectives on climate-related risks.

French: Ce projet porte sur les changements côtiers et environnementaux identifiés comme prioritaires par les communautés du Nunavut d'Ausuittuq (Grise Fiord) et de Kugluktuk. À Ausuittuq, les préoccupations concernent principalement les impacts des tempêtes et les inondations côtières, tandis qu'à Kugluktuk, l'érosion près du delta de la rivière Coppermine représente des défis croissants pour les infrastructures, les sites culturels et la sécurité de la communauté. Le projet réunit des partenaires de recherche locaux et des scientifiques de plusieurs universités afin d'étudier et de surveiller les conditions environnementales dans les deux communautés. Les activités de recherche portent sur l'érosion côtière et les inondations, les conditions du pergélisol, les processus océaniques ainsi que les risques environnementaux connexes. Le projet comprend quatorze objectifs spécifiques, regroupés en quatre grands axes : (1) soutenir l'adaptation des communautés aux changements côtiers ; (2) étudier les conditions côtières et du pergélisol ; (3) étudier la physique des océans, la géochimie et les écosystèmes marins ; et (4) évaluer les risques associés aux glissements rocheux. Des campagnes de terrain sont prévues en mai et plus tard en août. La plupart des approches de terrain, des activités et des méthodes d'échantillonnage demeureront conformes à celles des années précédentes.En 2026, la portée du projet sera élargie afin de s'appuyer sur les travaux en cours en ajoutant de nouveaux objectifs axés sur les processus océanographiques influençant l'environnement marin local. Le projet étudiera la dynamique physique des eaux océaniques, notamment la stratification, le mélange, le contenu en eau douce et en chaleur, ainsi que les propriétés biogéochimiques, afin de mieux comprendre les impacts de la perte de glace de mer, du réchauffement, des tempêtes, du ruissellement et des intrusions d'eaux profondes sur les écosystèmes marins. Le projet amorcera également le suivi des masses d'eau océaniques dans le détroit de Jones et le long de l'est de l'île d'Ellesmere afin d'améliorer la modélisation de la circulation océanique régionale et de fournir des données de référence acquises par les Inuits pour l'aire marine protégée de Tuvaijuittuq. Ces objectifs seront appuyés par des capteurs profilés et ancrés ainsi que par un échantillonnage ciblé de l'eau pour des analyses chimiques et microbiologiques. L'engagement communautaire se poursuivra par l'organisation d'un atelier prévu en mai 2026 afin de partager les résultats du projet, de présenter des outils d'aide à la décision et de recueillir les connaissances locales sur les changements environnementaux et l'adaptation. Des entrevues et des sondages permettront également de documenter les perspectives des communautés sur les risques liés au climat.

Inuktitut: ᐅᓇ ᐱᓕᕆᐊᖑᔪᖅ ᐊᐅᓪᓗᑎᔪᖅ ᓯᒡᔭᓂᒃ ᐊᒻᒪᓗ ᐊᕙᑎᑦᑎᓂᒃ ᐊᓯᖑᖅᑐᓂᒃ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓯᕗᓪᓕᐅᑎᖁᔭᐅᓪᓗᑎᒃ ᓄᓇᕗᒻᒥ ᓄᓇᓕᖕᒋᓐᓂᑦ ᐊᐅᓱᐃᑦᑐᖅ ᐊᒻᒪᓗ ᖁᖅᓗᖅᑑᖅ. ᑕᐃᑲᓂ ᐊᐅᓱᐃᑦᑐᖅ, ᐃᓱᒫᓘᑎᑦ

ᐱᓯᒪᔪᑦ ᐊᓂᕆᓗᐊᖃᑦᑕᕐᓂᖓᓄᑦ ᐊᒃᑐᖅᑕᐅᔪᑦ ᐊᒻᒪᓗ ᓯᓪᓭᐃᑦ ᐃᕗᖃᑦᑕᖅᑐᑦ, ᑕᐃᒪᓗ ᖁᕐᓗᖅᑑᖅ, ᐊᐅᔪᑦ ᖃᓂᒋᔭᖕᒐᓂ ᖁᕐᓗᖅᑑᑉ ᑰᖕᒐ ᐊᒃᓱᕈᓐᓇᖅᑎᑦᑎᕙᓪᓕᐊᔪᑦ ᓇᐸᔪᓂᒃ ᓱᕋᑦᑎᕙᓪᓕᐊᔪᑦ, ᐱᐅᓯᑐᖃᖃᕐᕕᖕᓂᒃ ᐃᓕᖕᒋᓐᓂᒃ, ᐊᒻᒪᓗ ᓄᓇᓖᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᕈᓐᓇᖅᑐᑦ. ᐅᓇ ᐱᓕᕆᐊᖑᔪᖅ ᑲᑎᖕᒐᑎᑦᑎᔪᖅ ᓄᓇᓕᖕᓂ ᖃᐅᔨᓴᖅᑎᓂᒃ ᐱᓕᕆᖃᑎᒌᖕᓂᒃ ᐊᒻᒪᓗ ᖃᐅᔨᓴᖅᑎᒪᕆᖕᓂᒃ ᓇᑭᑐᐃᓐᓇᖅ ᐃᓕᓐᓂᐊᕐᕕᒃᔪᐊᓂᑦ ᐃᓕᑦᑎᓇᓱᒃᓱᑎᒃ ᐊᒻᒪᓗ ᒥᐊᓂᕆᓪᓗᒍ ᐊᕙᑖ ᑕᒪᐃᓐᓂ ᓄᓇᓕᖕᓂ. ᖃᐅᔨᓴᖅᑎᑦ ᖃᓄᐃᓕᐅᕈᑕᐅᔪᑦ ᐊᐅᓪᓗᑎᔪᑦ ᓯᓪᓭᖕᒋᑦ ᐊᐅᕙᓪᓕᐊᓂᖕᒋᓐᓄᑦ ᐊᒻᒪᓗ ᐃᕗᖃᑦᑕᕐᓂᖓᓄᑦ, ᐊᐅᒍᓐᓇᓐᖏᑦᑐᖅ ᖃᓄᑎᑑᓂᖓ, ᐃᒪᕖᖕᒥ ᑕᐃᒪᐃᑉᔪᔫᑦ, ᐊᒻᒪᓗ ᐊᑕᔪᑦ ᐊᕙᑎᒥ ᐊᑦᑕᕐᓇᕈᓐᓇᖅᑐᑦ. ᐱᓕᕆᐊᖑᔪᖅ ᐃᓚᖃᖅᑐᖅ 14 ᑐᑭᓕᐅᕈᑕᐅᕙᓪᓕᐊᓂᐊᖅᑐᑦ, ᐋᕿᒃᑕᐅᓯᒪᔪᑦ ᑎᒪᓴᐃᓕᖕᒐᓪᓗᑎᒃ ᑐᑭᖕᒋᑦ: (1) ᐃᑲᔪᖅᑐᑦ ᓄᓇᓕᖕᓂ ᓱᖕᒋᐅᑎᓂᐊᕐᒪᑕ ᓯᓪᓭᖕᒋᑦ ᐊᓯᖑᕐᒪᑕ; (3) ᐃᓕᑦᑎᓇᓱᒃᑐᑦ ᓯᓪᓭᖕᒐᓂᒃ ᐊᒻᒪᓗ ᐊᐅᒍᓐᖏᑦᑐᖕᒐᓂᒃ ᖃᓄᐃᓕᖕᒐᖕᒪᖕᖠᑕ (3) ᐃᓕᑦᑎᓇᓱᒃᑐᑦ ᐃᒪᕖᒃ ᖃᓄᐃᓕᐅᖃᑦᑕᓕᕐᓂᖕᒐᓂᒃ, ᓄᓇᖕᒐ ᑭᓱᖃᕐᒪᖕᖠᑦ, ᐊᒻᒪᓗ ᑕᑯᐅᖕᒐᑕ ᐅᒪᔪᓕᒫᖕᒋᑦ ᐊᕙᑎᓕᒫᖕᒋᓪᓗ; ᐊᒻᒪᓗ (4) ᖃᐅᔮᓇᓱᑦᑎᐊᕐᓗᒋᑦ ᐊᑦᑕᕐᓇᖅᑐᑦ ᐊᑕᔪᑦ ᐅᓴᖃᓄᑦ. ᓄᓇᒥ ᐱᓕᕆᐊᖑᔪᑦ ᐃᓂᓕᐅᖅᓯᒪᔪᑦ ᒪᐃᒍᑦ ᐊᒻᒪᓗ ᐋᒍᓯ ᐊᑖᓂ. ᑕᒪᕐᒥᐸᓗᒃ ᓄᓇᒥ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᑦ, ᖃᓄᐃᓕᐅᕈᑕᐅᓂᐊᖅᑐᑦ, ᐊᒻᒪᓗ ᖃᐅᔨᓴᕈᑎᑖᕐᕕᐅᓂᐊᖅᑐᑦ ᒪᓕᑦᑎᐊᕐᓂᐊᖅᑐᑦ ᑕᐃᒪᑉᐸᒃᑐᓂᒃ ᐊᕐᕋᒍᑕᒫᑦ. ᑕᐃᑲᓂ 2026, ᖃᐅᔨᓴᖅᑎᑦ ᑐᑭᓯᒋᐊᕈᒪᔪᑦ ᐋᕿᒋᐊᒃᑲᓐᓂᕐᓗᒋᑦ ᑲᔪᓯᔪᑦ ᐱᓕᕆᐊᖑᖃᑦᑕᖅᑐᑦ ᐃᓚᑳᓐᓂᕐᓗᒋᑦ ᓄᑖᒥᒃ ᑐᑭᓕᐅᕈᑕᐅᓇᓱᐊᖅᑐᒥᒃ ᐊᐅᓪᓗᑎᔪᑦ ᐃᒪᕖᖕᒥᒃ ᖃᓄᐃᑎᑦᑎᓂᖓ ᓄᓇᓕᖕᓂ ᑕᑯᐅᖕᒐᑕ ᐊᕙᑖᓂᒃ. ᐅᓇ ᐱᓕᕆᐊᖑᔪᖅ ᖃᐅᔨᓴᕐᓂᐊᖅᑐᖅ ᑕᐅᑦᑐᖕᒋᑦ ᓄᓇᐅᑉ ᖃᓄᐃᓕᖕᒐᖕᒪᖕᖠᑕ ᐃᒪᕖᖕᓂ ᐃᒪᖕᒐᓂᒃ, ᐃᓚᒋᔭᐅᕗᖅ ᑭᓲᖕᒪᖕᖠᑕ ᓄᓇᒥ ᖃᓅᒃᑑᑎᑦ ᐊᔾᔨᒋᔭᐅᓐᖏᑦᑐᓪᓗ, ᑲᑎᖕᒐᐅᖅᑐᑦ, ᐃᒪᑦᑎᐊᕙᒃ ᐊᒻᒪᓗ ᐆᓇᕐᓂᖓ, ᐊᒻᒪᓗ ᐆᒪᔭᑦᑐᑦ ᑭᓲᖕᒪᖕᖠᑕ, ᑐᑭᓯᑦᑎᐊᒃᑲᓐᓂᕐᓗᑕ ᐊᒃᑐᐃᓂᖓ ᑕᑯᐅᖅ ᓯᑯᐊ ᓯᑯᖑᖃᑦᑕᕈᓐᓃᕐᓂᖕᒐᓂ, ᐆᓇᖅᓯᓂᖕᒐᓂᒃ, ᐊᓄᑲᔪᑦ, ᑰᒃᑐᑦ, ᐊᒻᒪᓗ ᐃᑎᔪᑦ ᐃᒻᒥᖅᐸᓪᓕᐊᔪᑦ ᑕᑯᐅᕐᒥ ᐆᒪᔪᓕᒫᑦ ᐊᕙᑎᓕᒫᖕᒋᓪᓗ. ᐅᓇ ᐱᓕᕆᐊᖑᔪᖅ ᐱᒋᐊᕐᓂᐊᕐᒥᔪᖅᑕᐅᖅ ᒥᐊᓂᕆᓗᓂ ᐃᒪᕖᖕᓂ ᐊᖕᒋᔫᓂᖓ ᐊᐅᓯᐃᑦᑐᑉ ᐃᒪᕐᐱᖕᒐ ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓ ᐊᐅᓯᐃᑦᑐᖅ ᕿᑭᖅᑖᓗᐊ ᐱᐅᓯᕚᓪᓕᕐᓂᐊᕐᒪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑎᒍᑦ ᐃᒪᖕᒐᑕ ᐃᖕᒋᕋᓂᖓ ᑐᑭᓯᓗᒍ ᖃᓄᐃᓕᖕᒐᖕᒪᖕᖠᑦ ᐊᒻᒪᓗ ᑐᓂᓯᓗᑕ ᐃᓄᖕᓄᑦ ᖃᐅᔨᓴᕆᐊᕐᖓᐅᑎᑦᑎᓂᒃ ᑐᕝᕙᐃᔭᐃᑦᑐᖅ ᑕᑯᐅᖕᒐ ᓴᐳᒻᒥᔭᖅ ᓄᓇᖕᒐ. ᐅᑯᐊ ᑐᑭᓕᐅᕈᑕᐅᕙᓪᓕᐊᔪᑦ ᐃᑲᔪᕐᓂᐊᖅᑐᑦ ᓇᓗᓇᐃᖅᓯᓗᑕ ᑭᓲᖕᒪᖕᖠᑕ ᐊᒻᒪᓗ ᑭᓴᖅᓯᒪᑕ ᖃᐅᔨᓴᕈᑎᓂᒃ ᐊᒻᒪᓗ ᑐᕌᖅᑐᒍᑦ ᐃᒪᖕᒐᓂᒃ ᖃᐅᔨᓴᕈᑎᑖᕐᓗᑕ ᐃᓖᖅᓗᒃᓯᒪᖕᒪᖕᖠᑦ ᐊᒻᒪᓗ ᐊᖕᒋᓐᓇᖅᑐᒍᑦ ᑕᑯᔭᒃᓴᓂᒃ ᐆᒪᔪᖕᒋᓐᓂᒃ ᖃᐅᔨᓴᕐᓗᑕ. ᓄᓇᓕᖕᓂ ᐱᓕᕆᖃᑎᖃᕐᓂᖅ ᐅᖕᒐᕙᕆᐊᕐᓂᐊᖅᑐᖅ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᓗᑕ ᐃᓂᓕᐅᖅᓯᒪᕗᒍᑦ ᒪᐃ 2026-ᒧᑦ ᑐᓴᖅᑎᑦᑎᓂᐊᕋᑦᑕ ᐱᓕᕆᐊᖑᔪᓄᑦ ᓇᓂᓴᐅᔪᓂᒃ, ᓴᕿᔮᖅᑎᑦᑎᓗᑕ ᐃᓱᒪᓕᐅᕆᔭᕆᐊᓕᖕᓄᑦ ᓴᓇᕐᕈᑎᒃᓴᓂᒃ,ᐊ ᒻᒪᓗ ᓄᐊᑦᑎᓗᑕ ᓄᓇᓕᖕᓂᑦ ᖃᐅᔨᒪᔭᐅᔪᓂᒃ ᐊᕙᑎᖕᒐ ᐊᓯᖑᕐᓂᖕᒐᓄᑦ ᐊᒻᒪᓗ ᓱᖕᒋᐅᓴᐅᑎᒃᓴᑦ. ᐊᐱᕐᓱᕐᓗᑕ ᖃᐅᔨᓴᕐᓗᑕ ᐊᒻᒪᓗ ᓈᓴᐃᓗᑕ ᑎᑎᕋᖅᑕᐅᓂᐊᖅᑐᑦᑕᐅᖅ ᓄᓇᓖᑦ ᑕᐅᑦᑐᖕᒋᑦ ᓯᓚᐅᑉ ᖃᓄᐃᓐᓂᖕᒐᑕ - ᐱᓯᒪᔪᓂᒃ ᐊᑦᑕᕐᓇᖅᑐᓂᒃ.

Personnel

Personnel on site: 9

Days on site: 14

Total Person days: 126

Operations Phase: from 2026-04-01 to 2028-04-30

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Jones Sound	Researching	Marine	N/A	N/A	Grise Fiord
Jakeman Glacier	Researching	Inuit Owned Surface Lands	N/A	N/A	Grise Fiord
Norwegian Bay	Sampling sites	Marine	N/A	N/A	Grise Fiord
Camp 1	Camp	Marine	N/A	N/A	Grise Fiord
Camp 2	Camp	Crown	N/A	N/A	Grise Fiord (and Eureka)
Camp 3	Camp	Crown	N/A	N/A	Grise Fiord (and Eureka)
Camp 4	Camp	Crown	N/A	N/A	Grise Fiord (and Eureka)
Camp 5	Camp	Crown	N/A	N/A	Grise Fiord (and Eureka)
Camp 6	Camp	Crown	N/A	N/A	Grise Fiord (and Eureka)
Greely Fiord	Sampling sites	Marine	N/A	N/A	Grise Fiord (and Eureka)
Eureka Sound	Sampling sites	Marine	N/A	N/A	Grise Fiord (and Eureka)
Nansen Sound	Sampling sites	Marine	N/A	N/A	Grise Fiord (and Eureka)
Kugluktuk	Researching	Municipal	N/A	N/A	Kugluktuk
Grise Fiord	Researching	Municipal	N/A	N/A	Grise Fiord

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Kugluktuk	Amanda Dumond	Kugluktuk HTO	2025-10-06
Kugluktuk	Richard Akana	Kugluktuk HTO	2025-10-06
Grise Fiord	David General	Hamlet	2025-08-18
Grise Fiord	Marty Kuluguqtuq	Hamlet	2025-08-18
Grise Fiord	Terry Noah	Ausuittuq Adventures	2025-08-18
Grise Fiord	Laisa Watsko-Audlaluk	Hamlet	2025-08-18

Authorizations

Indicate the areas in which the project is located:

Transboundary
Kitikmeot
North Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Planning Commission	The NPC has determined that the project proposal is a significant modification to the initial project because of th expanded research objectives, additional sample sites, and the use & establishment of temporary camps and fuel cache.	Active	2025-12-17	
Nunavut Research Institute	Not issued yet.	Applied, Decision Pending		
Nunavut Water Board	Not issued yet.	Applied, Decision Pending		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	Commercial and PCSP flights	
Water	Transportation by local boats operated by community members.	
Land	Transportation by ATV and truck.	

Project accomodation types

Temporary Camp

Community

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Portable earth auger	1	100 cm x 60 cm x 60 cm	Permafrost drilling with sampling
GNSS system	1	100 cm x 30 cm	High-precision mapping
Small fixed-wing drone	1	116 cm (wingspan)	High-precision mapping (Aerial surveys of the coastal zone)
Buoys	1	42 cm x 31 cm	Measure wave and water levels (ice-free season). The instrument will be retrieved before freeze-up.
Bottom-mounted sensors	3	3 cm x 10 cm	Measure wave and water levels in the intertidal zone during low tide. All the sensors will be retrieved before freeze-up
Automatic time-lapsed cameras	3	10 cm x 10 cm x 10cm	Monitor and quantify coastal erosion in relations to storms.
ATVs	2	2.5 m x 1.2m x 1.4 m	Access study sites
ERT	1	1 m x 1 m x 1 m	Non-invasive, subsurface investigation technique to map near-surface permafrost structures.
Snowmobile	2	1 m x 1 m x 3 m	Travel to study sites
Ocean profiler	2	0.5m x 0.5m x 0.75m	Measure ocean properties

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Gasoline	fuel	1	20	20	Liters	Portable earth auger refuelling.
Gasoline	fuel	10	200	2000	Liters	Snowmobile refueling
Other	fuel	20	4	80	Liters	Naphtha (stove fuel)
Other	fuel	20	4	80	Liters	Kerosene (heater fuel)

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Water for drinking and cooking will come from melted snow or	At camps and sampling sites.

	natural freshwater. Small ocean samples (<2 L per site) will be collected for microbial and chemical laboratory analyses.	

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Camp	Other, Empty fuel drums	10 x empty metal drums	Cached in Eureka for disposal by PCSP or removeable by sealift.	N/A
Camp	Sewage (human waste)	100 L	Disposed on or through sea ice for natural microbial decomposition in marine waters.	N/A

Environmental Impacts:

No significant or lasting environmental effects are expected from this project. All field activities are designed to minimize disturbance to land, water, wildlife, and nearby communities, resulting in impacts that are minimal, localized, temporary, and fully reversible. The project will be conducted in close collaboration with northern communities to ensure alignment with local priorities, knowledge, and environmental stewardship practices. Potential risks are limited to the use of off-road vehicles, small boats, and hand-held tools. These activities will follow established safety and environmental protocols to prevent spills, soil compaction, and vegetation damage. Most methods, including mapping (GNSS, drones), geophysical surveys (GPR, ERT), and sensor deployment, are non-invasive and have negligible impact. Permafrost drilling will be localized (~15 m^2 per site), with care taken to avoid sensitive areas and prevent contamination. Sites will be restored after sampling, and spill response equipment will be available. Ocean profiling instruments will be temporarily deployed and recovered through sea ice, leaving no trace. A single mooring near Grise Fiord will remain in place, consisting of passive, battery-powered sensors that emit no sound or chemicals. Its location will be selected with community input to avoid sensitive habitats. Small water samples (<2 L) will be collected with no environmental risk. Multibeam sonar surveys may cause brief disturbances but will follow best practices and avoid sensitive periods. All equipment will be securely deployed and removed promptly.

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 of Existing Environment: Physical Environment

Description of Existing Environment: Biological Environment

Description of Existing Environment: Socio-economic Environment

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

Cumulative Effects

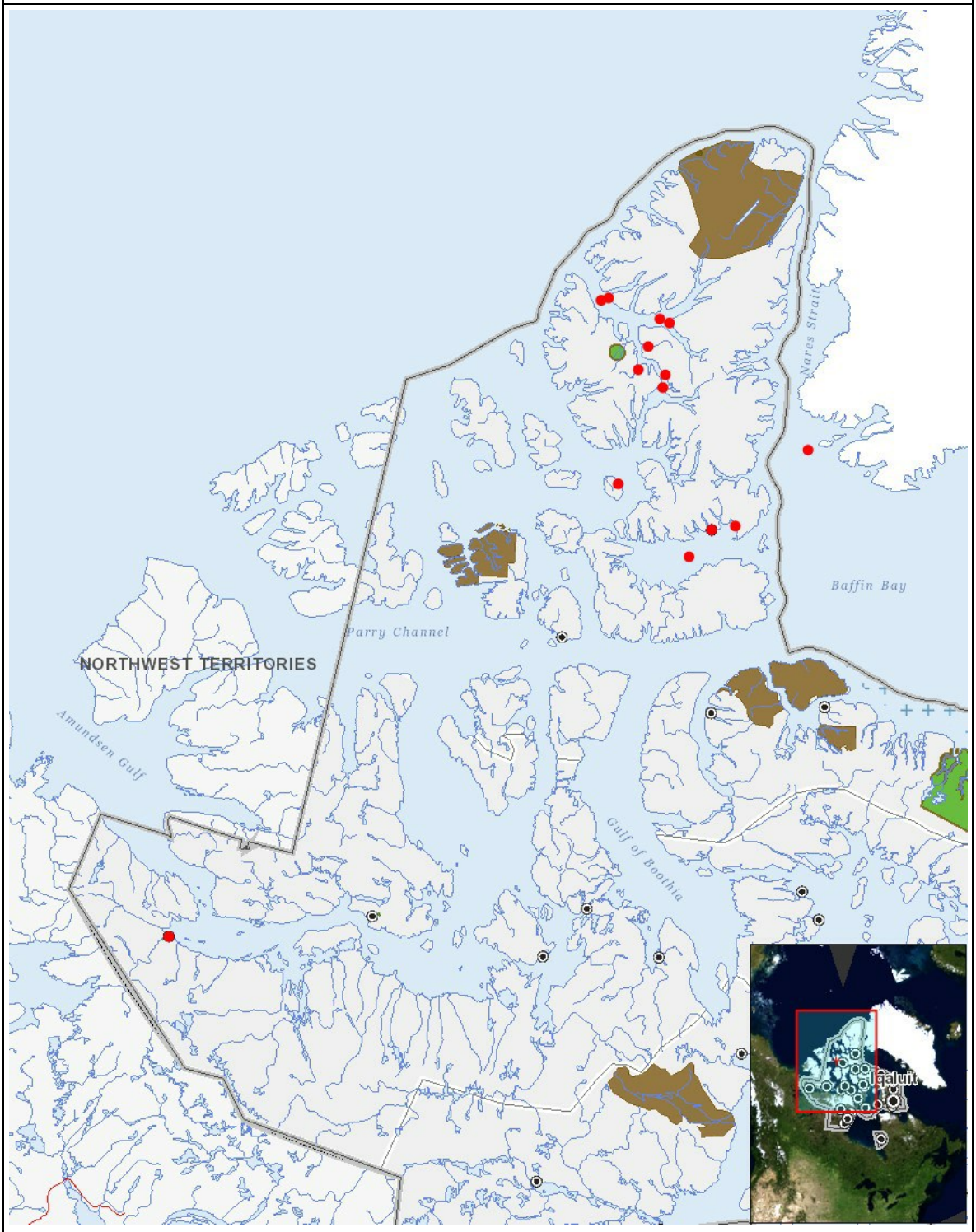
Impacts

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																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Operation																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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

Project Location



List of Project Geometries

1	point	Jones Sound
2	point	Jakeman Glacier
3	point	Norwegian Bay
4	point	Camp 1
5	point	Camp 2
6	point	Camp 3
7	point	Camp 4
8	point	Camp 5
9	point	Camp 6
10	point	Greely Fiord

11	point	Eureka Sound
12	point	Nansen Sound
13	point	Kugluktuk
14	point	Grise Fiord