Demande de la CNER faisant l’objet d’un examen préalable #125982

Cambridge Bay Air Quality

Type de demande :	New
Type de projet:	Scientific Research
Date de la demande :	7/4/2024 11:33:26 AM
Period of operation:	from 2024-08-30 to 2027-08-30
Promoteur du projet:	Emily Koide Polar Knowledge Canada (POLAR) 1 Uvajuq Road Cambridge Bay Nunavut X0B 0C0 Canada Téléphone :: 8673910285, Télécopieur ::

DÉTAILS

Description non technique de la proposition de projet

Anglais: Overview: Polar Knowledge Canada and Environment and Climate Change Canada are proposing to install monitors to measure particulate matter (PM 2.5, PM 10 and black carbon) in the community of Cambridge Bay, Nunavut. Particulate matter can come from many sources in the community including road/construction dust, burning of diesel, and burning of the dump. Particulate matter, including black carbon, is of concern because it can contribute to negative health outcomes as well as climate change. Purpose: The purpose of this project will be to understand the levels and sources of particulate matter and black carbon in the community of Cambridge Bay, Nunavut. This information will help to assess whether these levels could be associated with any public health risks and develop options for mitigating emissions. Activities: The project will involve deploying small particulate matter sensors and black carbon sensors in strategic areas of the community. Qulliq Energy Corporation will help to install the sensors on top of the streetlights and remove them at the end of the project. A sensor will also be installed in the high school to monitor differences in indoor air quality.Timeline: This pilot project will span 3 years (2024 – 2027). It includes a minimum 2-year data collection period (2024-2026) and 1-year to analyze data and produce the project deliverables.Results: At the end of the project, the team will produce a report on findings, including options for mitigating emissions and exposure. These findings will be presented to community members in a results workshop where discussions can be held on results, next steps, and potential mitigation measures. The data generated from the project will also be shared with the Hamlet of Cambridge Bay to help determine potential emissions mitigation measures. Additionally, the team will be working with the high school to allow students to see the differences in particulate matter concentrations within their school and in different areas in their community. Should this pilot project be successful in Cambridge Bay the project could be duplicated/adapted for other arctic communities that are interested. Impacts: Due to the location of the project within a pre-disturbed area (within the community), the noiseless and small size of the instruments (approximately the size of a 1 litre Nalgene bottle), and the inaccessibility of the instruments on top of streetlights, there is unlikely to be any impacts to the environment, wildlife or people.

Français: N/A

Inuktitut: N/A

Inuinnaqtun: Ukautait: Polar Knowledge Canadami ovalo Avatiligiyit Hilat Aalangayulikiyit Kanatami uktumayut ililutik kungiagutikhainik halumaituligutainik (PM 2.5, PM 10 ovalo Puyuut) Ikaluktutiami, Nunavut. Halumailigutit pilaaktut amigaitunit nunalaani, ilauyut apkotini hiugaliat, ikualaaktut ukhukyuat ovalo ikualaaktut kuviit. Halumaituligutit ilauyut puyuut ihumaalugiliktait ilaa, ilaulaamata anialilaagutainut ovalo hilat aalangugutait. Huliniaktut: Hulinahuaktut hamani hanayakhait kangikhinahualugit kanugitaakhaat ovalo nakitlu halumailigutit ovalo puyuut Ikaluktutiami, Nunavut. Hamna tuhagutikhait ikayuniaktut ikayugiaganik hapkoa kanugitaakhaat ilauyunit Inunut aniaktitailigiyiit ovalo hanalutik aalanut ihuakhilaagutainik puyuunit. Havaniaktait: Hanayakhat ilauniaktut ililutik mikiyunik kimilguugutainik Ikaluktutiami. Qulliq Kuliligiyiit Kuapurisitkut ikayuniaktut ilitigutainik kimilguugutait kaangani apkotini kuliit ovalo unguvaklugit inikata hanayakhat. Kimilguutit iliyauniaktut Ilihakvim kungiagiaganik kanugitaakhaat iluani anikhaagautit. Ubluinik: Hamna hivulik hanayakhat uktuniaktut pingahunik ukiunik (2024mit – 2027mut). Ilauniaktut mikinikhaanut malguunik ukiunik katitigutait ukiunik (2024mit-2026mut) ovalo atauhimik ukiumik kimilguugutainit katitigutait ovalo hanalutik tunilaaktainik.Iniktigutait: Inikata hanayakhat, havakatigiiktut hananiaktut tuhaktitakhainik nanihimayainik, ilauyut aalangugutainut ihuakhailaaktait puyuut ovalo aktugutait. Hapkoa nanihimayait tuniyauniaktut nunakatigiiktunut ayoikhaitilutik katimayut nani ukakatiginiaktait iniktigutainik, aipaanutlu piniaktait ovalo ihuakhautikhait naunaiyautainik. Katitikhimayut pihimayut hanayakhamit tuniyauniaktut, ilaukatigiyaanganik Hamletkunut Ikaluktutiami ikayugiaganik kanuk pilaaktait puyuut ihuakhailaagutainik naunaiyautait. Ovalutauk, havakatigiiktut havaniaktut Ilihakvimi pipkaiyaanganik ilihaktut takuyaanganik kanugitaakhaat halumailigutit katitilikpaktut ilihakvimi ovalo aalatkiinit ilihimayait Ikaluktutiami. Pigumik hamna hanayakhat nakuugumik Ikaluktutiami, hanayakhat aatjikutiliuniaktait/atuliklugit aalani Ukiuktaktumi nunalaat uktugumayunut. Ikpinagutait: Naniiniagutait hanayakhat iluanik aktuktauhimaitumi (iluani Ikaluktutiak), nipikangitut ovalo mikiyut hanalgutit (haniani Ikaluktutiami), nipikangitut ovalo mikiyut (angitjutait 1litre hikulautait) ovalo aktuktaulaitjutainik hanalgutikhait kaangani

kuliit, ikpinaktilaitut avatiligiyinut, hugaanut ovaluniit Inunut.

Personnel

Personnel on site: 2
Days on site: 2
Total Person days: 4
Operations Phase: from 2024-08-30 to 2027-08-30

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
Air quality monitors within the boundary of Cambridge Bay	Scientific/International Polar Year Research	Commissioners	Within municipal limits of Cambridge Bay	N/A - will be installed in pre-disturbed area on buildings and light posts	Within Cambridge Bay

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Cambridge Bay	Angela Gerbrandt	Cambridge Bay Hamlet	2024-06-06

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Institut de recherche du Nunavut	NRI Research Permit - Physical / Natural Sciences Research	Not Yet Applied		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Land	Travel by truck in community to install monitors	

Project accomodation types

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
QEC Cherry Picker	1	2x4.5m	Install sensors on top of light posts

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
Information is not available						

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
0		

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Information is not available				

Répercussions environnementales :

Potential environmental impacts are very low as the monitors are small (approximately the size of a nalgene water bottle), do not emit sound, and will be placed out of reach on light posts and buildings. The monitors are also being placed within the community in pre-disturbed areas. Potential for positive impacts on air quality, community wellness and human health as the results workshop from this project will discuss with community members, KIA and the Hamlet about current air quality and mitigation measures to improve air quality in the community.

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

Pre-disturbed area

Description de l'environnement existant : Environnement biologique

Description de l'environnement existant : Environnement socio-économique

This project is in response to community concerns with air pollution from dust and burning of the dump. The air quality monitors will help measure impacts from these activities and will aid in determining mitigation measures.

Miscellaneous Project Information

Identification des répercussions et mesures d'atténuation proposées

Répercussions cumulatives

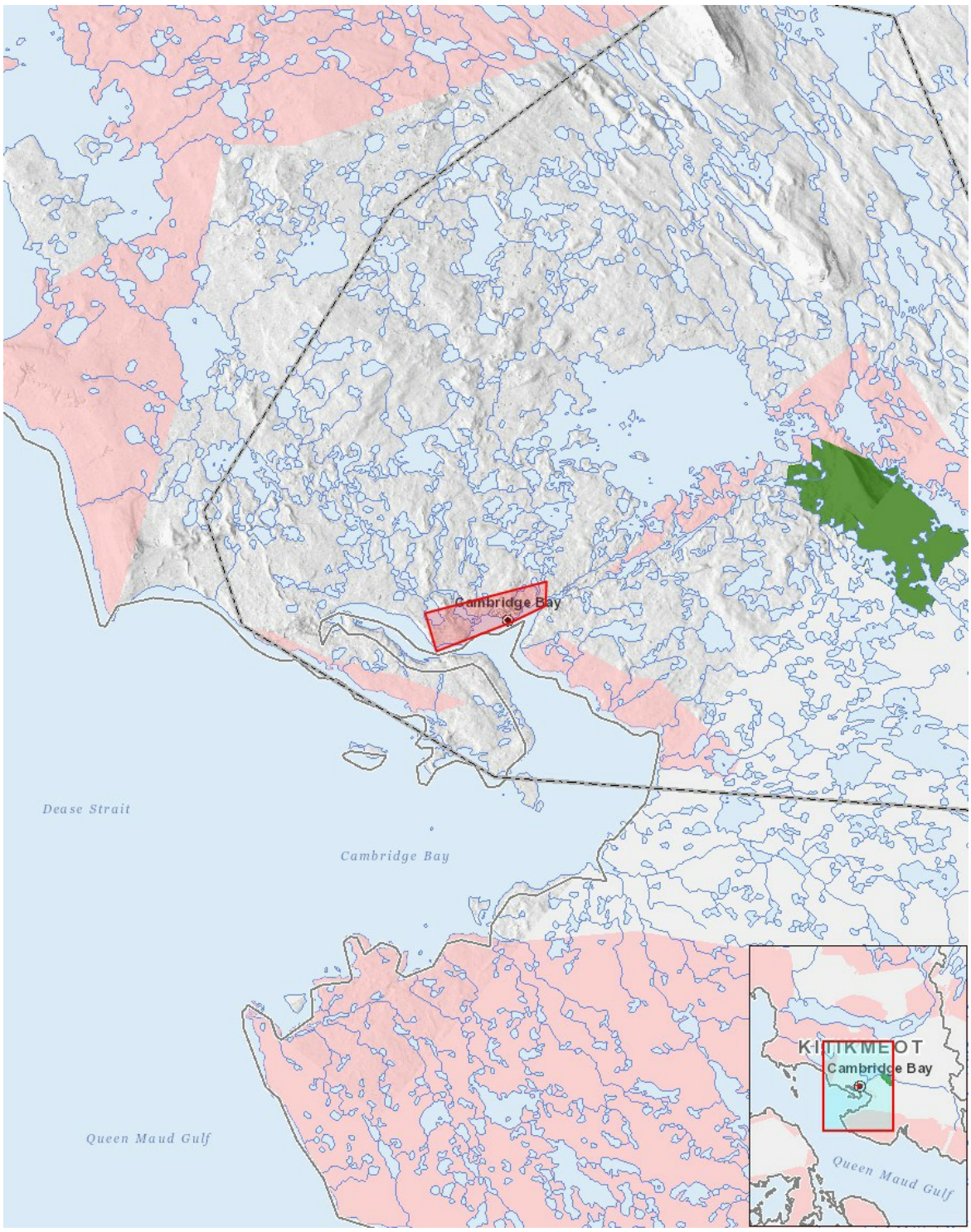
Impacts

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		-	-	-	-	-	-	-	-	-	-	-	P	-		-	-	-	-	-		-	-	P	-	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	Air quality monitors within the boundary of Cambridge Bay