



## **Demande de la CNER faisant l'objet d'un examen préalable #125436 BBC Perfect Planet - Ahiak Migratory Bird Sanctuary (Karrak Lake) - Arctic Foxes**

**Type de demande :** New

**Type de projet:** Scientific Research

**Date de la demande :** 1/16/2019 12:31:12 PM

**Period of operation:** from 0001-01-01 to 0001-01-01

**Autorisations proposées:** from 0001-01-01 to 0001-01-01

**Promoteur du projet:** Sarah Walsh  
Silverback Films Ltd  
Silverback Films, 1 Augustines Yard, Gaunts Lane  
Bristol Bristol BS1 5DE  
United Kingdom  
Téléphone :: +44 (0) 117 992 7277, Télécopieur ::

# DÉTAILS

## Description non technique de la proposition de projet

Anglais: Project Title BBC Perfect Planet - Ahiak Migratory Bird Sanctuary (Karrak Lake) - Arctic Foxes There will be 4 members of crew present on location;•Sarah-Jane Walsh – Field Director•Alain Lusignan – Expedition Leader•Ivo Norenberg – Camera Operator•Tom Crowley - Camera Operator Perfect Planet is a 5-part wildlife television documentary series, which has been filmed over a 4-year period and is due to air on BBC1 in 2020. Episode 1 focuses on how changes in the distribution of sunlight across the globe drive unique animal behaviours and adaptations. Two of our key sequences will showcase how animals cope with periods of no sunlight and perpetual sunlight. We have already filmed the polar night in Ellesmere Island and now wish to film the Midnight sun in the Ahiak (Queen Maud Gulf) Migratory Bird Sanctuary. This location interests us because there is just a short 5-week window when there is no snow on the ground and it is a race against time for animals to rear their young and get ready for the rapidly approaching winter. Our primary objective will be to film arctic foxes at an active den to document the pups in their first few weeks as they begin to explore their new world beyond their den. An additional part of our filming activities will be to document the large numbers of snow geese that nest around Karrak Lake with the aim to film predation by foxes and other opportunistic predators such as wolves, wolverines and bears. We would also like to film some scenic landscapes with an unmanned aerial vehicle (drone) and wide shots to showcase the nesting goose colonies. There will be two members of the team at Karrak lake within the Ahiak Migratory Bird Sanctuary from the 15th May – 17th July 2019 and the other two members of crew will be present from the 9th June – 9th July 2019. The crew will be based at a permanent research station which has been in use ever summer since 1991 for migratory bird research. No additional camp or infrastructure will be needed. The crew will arrive will arrive when the bird research crew arrives and stay with them until they close camp on the 1st day of the research season and leave as the research station is being closed. This is the only location they will visit with the exception of stopping at Perry River to swap from a helicopter to a twin otter on departure. The crew will use commercial airlines to reach their point of entry and departure in Cambridge Bay, then charter aircraft as detailed below to reach the research station. All charter aircraft from Cambridge Bay is managed by the Polar Continental Shelf Program. These flights will be shared by the other scientific research teams who will also be working out of the research station. The flights are just used for moving people and equipment in and out of the location and not used for filming or scouting for fox den locations. Crew 1 Outbound: Twin Otter from Cambridge Bay to Karrak Lake – 3.5-hour return flight. Return: Helicopter from Karrak Lake to Perry River, then Twin Otter from Perry River to Cambridge Bay. We are using Perry River as a midway stop to save money on helicopter costs. a twin otter is unable to fly in to Karrak Lake due to unsuitable landing conditions. Crew 2 Outbound: Helicopter from Cambridge Bay to Karrak Lake, a twin otter is unable to make the journey this late in the season. Return: Helicopter from Karrak Lake to Cambridge Bay On location crew will travel on foot and in small boats (10ft aluminium with 16 hp engines) owned by the Karrak Lake Research Station to reach the mainland from the station, which is situated on an island. The research station have 3 boats in total which are stored permanently on site. The boats can only be used once the lake melts from around the 10th June and are just used for crossing from the accommodation which is situated on an island to the main land. Karrak Lake has been the subject of an extensive Arctic Fox study over the past 20 years. Due to the knowledgeable research scientist, it is one of the best places in the world to film at an active den with fox cubs. Arctic foxes - We will be following the advice of the scientific experts who will help us locate the best dens for filming. Filming will take place in a camouflaged blind/hide located close to the den location. The crew will also place remotely operated camouflaged cameras to film much closer to the fox dens (less than 10m). This is already being undertaken by scientists at the same location and involves putting the camera down as quickly as possible, ideally before the pups emerge from the den to avoid disturbance and may need occasional maintenance i.e. Battery changes and memory card swaps. Opportunities to do this will be carefully chosen to avoid disturbance and under the guidance of the scientists. Nesting Geese - One of the objectives will be to film predation on goose nests by arctic foxes and other predators. Filming will be conducted at a distance and the crew will not approach the nest at a distance deemed to cause disturbance to the geese. The crew will attempt to showcase the scale of the goose colony using a drone (unmanned aerial vehicle). This will be done after egg laying and prior to hatching and fledging when all geese are grounded and on the nest. These flights will only be done at the strict discretion of the research scientists. Take off and landing zones will be >100m from the nesting colony and flights will be conducted at a height which does not illicit any signs of disturbance such as head cocking or leaving the nest. Flights will be conducted at an angle to the birds rather than directly overhead to reduce disturbance. The team will begin at a 100m height above the geese and if no disturbance is seen this height may be reduced. At all times during flight a spotter will watch the behaviour of the geese through binoculars. The aim of these UAV flights will be to showcase the scale of these nesting geese and so generally flight will be high and wide. The team are staying with the Karrak Lake research station who have a pre-existing waste management plan; Dry garbage is burned, food waste is buried, recyclables returned to Cambridge Bay, human waste is buried, grey water released away from open water Potential environmental impacts and mitigation measures The camera operators have worked with

[illegible]

[illegible]

Inuinnaqtun: Havaagham AtiaBBC-kut Nunaryuatqiktut– Ahiaqmi Tingmitjat Tikitaqtut Nayugait (Hanningayuq) - TiriganniatTughiraqtum atia turaaqviitalu naunaitkutaitNick Jordan, QunngialiuqtiSilverback Qunngialiuqtit Limitit / Nunaryuatqiktut Qunngialiuqtit Limitit.Silverback Qunngialiuqtit, 1 St Augustine’s Yard, Gaunts Lane, Bristol, BS1 5DE, UKQaritauyakkut titiraqviat: nick.jordan@silverbackfilms.tv Hivayaut: +44 (0) 117 992 7257Sarah-Jane Walsh, Qauyihaiyi / Nunainnaqmi IkkuuqtiSilverback Qunngialiuqtit Limitit / Nunaryuatqiktut Qunngialiuqtit.Silverback Qunngialiuqtit, 1 St Augustine’s Yard, Gaunts Lane, Bristol, BS1 5DE, UKQaritauyakkut titiraqviat: sarah.walsh@silverbackfilms.tv Hivayaut: +44 (0) 117 992 7277Naallugit havaktit taapkualu/uniit pulaaqtit ikayuqtauniaqtut piinnaraliutit ataagutHitamauniaqtut qunngialiuqtit talvani qunngialiuqvianit;•Sarah-Jane Walsh – Nunainnaqmi Ikkuuqti•Alain Lusignan – Havaktinut Hivuliqti•Ivo Norenberg – Qunngialiuqtut•Tom Crowley - QunngialiuqtutHavaaghanit InirumayaitNunaryuatqiktut tallimanik qunngiaghalik anngutighanik unipkaaqtut, qunngialiuqhimayut hitamanik ukiunik qunngiaqtaghauplutik BBC1-mi 2020-nguqqat. Hivulliq qunngiagaghaq unipkaalluaqpagait aallannguqpalliyuq hiqinnaarniq nunaqyuami ingilratjutaayunik aulatjutauplutiklu anngutighat inuuhiinut aulatjuhiinullu. Malruk qunngialiuqtaptinngit unipkaarahuat qanuq anngutighat aularaaqpagiaghait hiqinnaaruiraangat hiqinnaanginnaraangallu. Qunngialiuqhimayaqqut nanuit unnuktumi Auyuittumi tajjalu qunngialiurumayaqqut unnuktumi hiqinnaaqtut Ahiaqmi (Ahiam Ikirahaanit) Tingmitjat Tikitaqtut Nayugainit. Hamna nuna ihumagilluaqpaktavut nainmat tallimanik Santiqhiiplutik havakvighaat aputaitillugu nunami imaalu hivikinihanik anngutighanut irniyuqtunik imaalu ukiaghamut parnaiyaiyunik. Havaaghalluariyumayaqqut qunngialiuqlugit tiriganniat piaraita hitimingnit qunngiaqlugit irniuhaaqtumit anivalliyunut hitimingnit. Ahiaqullu qunngialiuqpangniaqtugut amihuaryungnik kangurnik ivayut Hanningayumi naahurilugit qunngialiuqtaghat tirigannianit anguniaqtauyut ahiniklu anngutighanit taapkuatut amaqqunik, qalvingnik agharniklu. Qunngialiurumayaqqullu nunait ahiittut pinniqtut tingmitaqtitaigut (ingniqutilinnuagut) qulaanitlu piksaluqlutik takughaupkaiyunik upluinik kanguit.Havaaghaita NayugaitAhiaqmi Tingmitjat Tikitaqtut Nayugait Hanningayumi Qauyihaiyit Havakvianit - 67° 13' 59.99 N, -100° 15' 0.00 E Havakvighaat upluq hivitunialu pulaaqvighaat tamangnt munaqtauyunutMalruuniaqtut qunngialiuqtit Hanningayumi talvani Ahiaqmi Tingmitjat Tikitaqtut Nayugainit May 15-mit July 17-mut, 2019-mi ahiillu malruk qunngialiuqtit tikimanahuat June 9-mit July 9-mut 2019-mi. Qunngialiuqtit qauyihavilluami havagahuat atuqtauhimaghaaqtumi 1991-mit tingmitjanik qauyihaiyunit. Ahiaqut tupiqturahuanngittut iklupaliulaittutiklu. Qunngialiuqtit tikinniaqtut qauyihaiyit tikitpata nayuqlugillu tupiqtuqviat umighiilugu hivullianit upluanit qauyihaviiinut aullaqlutiklu qauyihaviiat umiktaukpat. Hamnatuaq nuna pulaaqniaqhimayaat kihimi nutqarlutiklu Kuukyuaami halikaaptamit tingmiarmunngaqlutik aullaqvighaanit.Qanuq aullaarahuatQunngialiuqtit aullaarahuat angiyukkut tingmiakkut tikivighaanut aullaqvighaanullu Iqaluktuuttiaqmi, talvanngat saataqlutik tingmiaqmik ilittuqhitihiimayutut ataani talvunga qauyihavvighainut. Tamangnik saataqhimayait tingmiat Iqaluktuuttiaqmit munaqtauyut taapkuningga Ukiuqtaqtumi Nunaqatigiingnit Aulapkaqtaigut. Tingmiqatiqarniaqtut ikayuqtigiiklutit taapkualu qauyihaiyit havaqatigiit havangniaqhimayullu talvani qauyihavvianit. Tingmivangniat agyaqtarlugit havaktit ingilrutaitalu havakviinut atuqtaulaittutiklu qunngialiuqtunit tirigannianik hitihiurutigilugilluuniit.Havaktiit 1 Aullaqtiqviat: Malrulik tingmiaq Iqaluktuuttiaqmit Hanningayuqmut – pingahunik avvaaniklu ikaaqnik tingmiyughat. Utiqlutik: Halikaaptakkut Hanningayumit Kuukyuaqmut, talvanngat malrulikkut Kuukyuaqmit Iqaluktuuttiaqmunngaqlutik. Kuukyuaq nutqaqvinahuaqtaqqut akunngani maniktuqpallaaqtailpluta halikaaptat akighainik. Malrulik tingmiaq mittaqtulainmat Hanningayumi milvighaillamut.Havaktiit 2Aullaqtiqviat: Halikaaptakkut Iqaluktuuttiaqmit Hanningayumut, malrulik tingmilainmat talvunga

kinguvaqtinmat.Utiqlutik: Halikaaptakkut aullaqlutik Hanningayumit Iqaluktuuttiaqmut Havakvianit havaktut aullaqpangniat pihughutik mikiyukkullu qayakkut (10 feet-nik takiyaaqtunik 16 hp-nik ingniqutiqlutik) nanminiriyayut Hanningayumi Qauyihavqianit ikaarutighait ahiarmut qauyiharvingnit, qikiqtamiittumit. Qauyihaiyt havakviat pingahunik qayalgit naallugit tutquumavaktut qauyihavqianit. Qainnat atuqtauvaktut tahi q hikuiraangat June 10 haniani ikaarutauvaghutik hiniktarviinit qikiqtamit talvunga ahiarmut.Ilittuqhitit havaanginnit naunaitkutalluHanningayuq tahi q qauyihaivilluanguvaktuq Tirigannianik 20 ukiut naallugit. Ilihimmattiaqtumik qauyihaiyiqaghutik, qunngiaghaliuqvittuq nuna nunaqyuami tamaat hitiqarami tiriganniat piarainik. Tiriganniat – uqauhiita qauyihaiyt ayuittut naalakpangniaqtaqqut paqittinahuaqluta hitinik qunngaliuqtaghat. Qunngialiupangniat ilitturinnaittumik iiraqturviqarlutik haniani hitiita. Qunngialiutit qunngaliuqpangiat ilitturinnaittunik piksalitikkut qunngialiuriamik qanilruanit hitiit (10 meters avatqutaililugu). Taimaa qauyihaiyt havakpaliqtut talvani nayugaanit imaalu piksalitait qilamiurahuaghutit ipirarahuaqpagaat, tiriganniat piarait nuitinnatik hitimit kuinginnainnahuaqhutik ilaanilu ihuaqhaqtauvaktughat taapkua patuliit himiqhugit tutquumaviillu aallannguqtighugit. Himmiqhivighait taapkuninnga pittirarahuaqpangniat kuinginnainnahuaqhutik uqauhiigut qauyihaiyt.Ivayut kanguit – Atauhiq havaariyumayaat taimaa qunngialiuglutit angunahuaqtut kangurnik tiriganniat ahiniklu anngutighanik. Qunngialiupangniat ungahiaqtumit taapkualu qunngialiutut upagahuaqtailivangniarait upluta kuinginnautilugit kanguqnut. Qunngialiutut tamatkirahuaqniaqtait piksalitikkut kanguit nayugait tingmitaqtukut piksalitikkut (inuittuq tingmitaqtuq ingilrutik). Taimaa piksaluqpagahuat ivalirumik maninik ahiruqtiqtinnagillu manniit tamangnik kanguit uplunit ivalirumik. Taapkua tingmitaqtut piksalitit atuqtauvangniat pitquyaugumik qauyihaiyinit. Aullaqtitauvangniat mittaqtuqtitaulutik 100 meters haniani uplunit kanguit tingmipkaqtitauvangniatlu aktuqtailiplugit niaquinut upluiniklu qimagahuaangamik. Tingmitaqtunik tingmipkaivangniat haniaguqhutik qulauhimaittumik kuinginnainnahuaqhutik. Qauyihaivangniat 100 meters-nik qulaagut kanguit imaalu kuinginnaitkumi kangurnut atpaghivangniat. Tingmitaqtuq tingmitillugu munaqtiqaqpangniat qunngiaqtumik kanguqnik qinngutikkut. Tingmitaqtunik UAV-nik ingilrapkaivangniat tautuktittiyaamik amihuaryuita kanguit talvuuna qulvahiktumi tingmivangniat.IqqakuitHavaktiit nayurahuaghaat Hanningayumi Qauyihavvik talvani iqqakuiniqmik parnaiyautilgit; paniumayut iqqakuit ikulattiyauvaktut, niqivaluit iqqakuit hauyauvaktut, atuqtautqilaqtut utiqtitauvaktut Iqaluktuuttiaqmut, annakuit hauyauvaktut, kuvvikuillu immat kuviyauvaktut imariktut ahianitAvatinut mihingnautaulaqtut ihuaqhautillu havauhiitQunngialiutit qunngialiuhimavagait tiriganniat hivuani talvuuna pitquhiit naluhuiqhimaliqtait taimaalu ilittuqhiyaamik kuinginnautinik ihumaaluutiniklu. Taapkua amirnaqhiyut anngutighat tautungniarahugiyaqqut taapkuanguyut Tukuit, Aghait Umingmaillu. Qunngialiulaaruptitku, qunngialiurumayaqqut pitquhiita hapkua anngutighat. Amirnaittumik qunngialiulaarupta kuinginnautihimaittumik anngutighanut qunngialiurahuagpangiat hivuraaniillutik anuqqimit amirnaittumillu piksaluqlutik.Havauhighat amirnainniqmut anngutighanik paqittinnirumikAmirnaqtunik anngutighanik paqittiniarahugiyut;Amaruq (Canis lupus arctos); Aghaq (Ursus arctos); Qalvik (Gulo gulo); Umingmak (Ovibos moschatus).Tamangnik nunainnaqmi havaktut hiqquutilgiarniat/titirautiqpaluktuniklu hiqquutinik qaryughainiklu, tamangniklu havaktit tigumiaqpangniat agharnut ihilatjutinik. Nunainnaqmi havaktit haatkaalgiaqpangniattaug iharianaqhikpat atuqtaghainik, havaktinut hivuliqti iniqhimaliqtat taamna Kaniitian Hiqquutiliqiyit Amirnainniqmut Ilihaqtaghaat, tigumiaqtiuliqhuni Tigumialaaliqtuq Piinnarialiutulu laisiutaanik,Nunallaaqnit katimayut ilaupkaiyulluHapkua havakviit hivayaqpangniaqtavut January-mi hapkua naunaitkutat numiktitaataaqqata;•Iqaluktuuttiami Anguniaqtit Naniriaqtuqtillu Katimayit •Uqhuqtuumi Anguniaqtit Naniriaqtuqtillu Katimayit•Umingmaktuq HTOHavakvighaqqut hivikiyaaramik ayurnaqaiaqtuq katimaqatigiyaamik nunallaaqmiut hulilukaaqatigiyaamiklu

kihimi tamangnik nunallaat aajjikkutaliuqhimayunik iniqhimayunik havaaghavut  
naunaitkutainik tuniyauniaqtut qunngiaghat takughauliqqata qunngiarutininik nunaquyumi  
tamaat. Iqaluktuuttiaqmiinniaqtugut atuqlugit hiniktarviit, niriviit taaksiillu qunngialiuqtinut  
tikitpata hunaqutighaillu qauyiharviup havakviat munaqtauvangniat  
Iqaluktuuttiaqmit. Hivunighami parnaiyautit hapummiyauyunut nunanithivunighami  
parnaiyautaittugut talvani Ahiaqmi Tingmitjat Tikitaqtut Nayugainit hapkua iniqtaukpata.  
Iniqvighaat aullaarvikput hamunga inirutauniaqtuq qunngialiuqtunut tamangnut  
qunngialiuqtait takughauniaqtut qunngiarutininik nungutinnagu ukiuq 2020

**Personnel**

Personnel on site: 4

Days on site: 64

Total Person days: 256

Operations Phase: from 2019-05-15 to 2019-07-17

## 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
Karrak Lake Research Station	Scientific/International Polar Year Research	Crown	The research station at Karrak Lake was established by Dr Ray Alisauskas and the Canadian Wildlife Service in 1991. It is located on the largest island in Karrak Lake and it consists of 4 permanent cabins today.	There are lots of Inuit artifacts in the region - tent rings, meat caches, inukhuks (stone cairns), stone igloos (which may have been used as caches), kayak racks, blinds, and a stone corral.	Ahiak Migratory Bird Sanctuary (Karrak Lake)

### Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Cambridge Bay	cambay@kitikmeothto.ca	Ekaluktutiak Hunters & Trappers Organization	2019-01-15
Gjoa Haven	gjoa@kitikmeothto.ca	Hunters' and Trappers' Organization	2019-01-15
Cambridge Bay	Perter Kapolak chimo@kitikmeothto.ca	Umingmaktok HTO	2019-01-15



## Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Kitikmeot

### Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Service canadien de la faune	APPLICATION FOR A National Wildlife Area permit or A Migratory Bird Sanctuary Permit	Applied, Decision Pending		
Transports Canada	Special Flight Operations Certificate - to use unmanned air vehicle (UAV) for filming	Not Yet Applied		
Autre	Nunavut Planning Commission	Applied, Decision Pending		

### Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	Twin Otter and 206 LR Helicopter - transport from Cambridge Bay to Karrak lake	
Water	Boat 10ft aluminium with 16 hp engines - permanent camp is on an island these boats are use to gain access to main land on a daily basis	
Land	Foot	

### Project accomodation types

Permanent Camp

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
Aircraft	1	twin otter	The crew will use commercial airlines to reach their point of entry and departure in Cambridge Bay, then charter aircraft as detailed below to reach the research station. All charter aircraft from Cambridge Bay is managed by the Polar Continental Shelf Program. These flights will be shared by the other scientific research teams who will also be working out of the research station. The flights are just used for moving people and equipment in and out of the location and not used for filming .
Boat	1	10ft	On location crew will travel on foot and in small boats (10ft aluminium with 16 hp engines) owned by the Karrak Lake Research Station to reach the mainland from the station, which is situated on an island. The research station have 3 boats in total which are stored permanently on site. The boats can only be used once the lake melts from around the 10th June and are just used for crossing from the accommodation which is situated on an island to the main land.
DJI Inspire Drone	1	60cm	Aerial Filming
Camera equipment	1	various	Filming

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
none	fuel	0	0	0	Liters	We will be guest of the Karrak Lake Research Station we will be using nothing additional to what they already have approved

						through their own NIRB application
none	hazardous	0	0	0	Liters	We will be guest of the Karrak Lake Research Station we will be using nothing additional to what they already have approved through their own NIRB application

#### Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
0	We will be guest of the Karrak Lake Research Station we will be using nothing additional to what they already have approved - Water License 3BC-KAR1316	

# Déchets

## Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Camp	Eaux grises	1	We will be guest of the Karrak Lake Research Station we will be using nothing additional to what they already have approved through their own NIRB application	none

## Répercussions environnementales :

The only species at risk that we expect to encounter are Rangifer tarandus, Ursus arctos & Gulo gulo. We would also like to opportunistically film these species natural behaviours. If any species at risk are sighted the crew will be sure to establish their location in proximity to where they are currently situated and their direction of travel. If it is safe to do so without disturbing the animal the crew will position themselves downwind and at a safe distance with the camera, we would expect this would be somewhere between 30-100m from the animals. However, if they seem calm and not disturbed the crew may approach closer if it is safe to do so. Whilst travelling around generally the crew will avoid disturbing any nesting birds, particularly those listed above, the crew will be made aware of all species at risk present. Disturbance of arctic fox den sites - Team will be following the advice of the scientific experts who will help us locate the best dens for filming. The camera operators have worked with arctic foxes before and are familiar with their behavior and how to identify signs of disturbance and or stress. The crew will be working in a hide and will start at a distance of 100m for the den site and progressively move closer should there be no signs of disturbance, the aim would be to reach a distance of around 30m from the den location Disturbance of nesting Ross's and Lesser snow geese - The crew will follow the instruction of research staff regarding moving through, approaching and filming nesting geese. Filming will be conducted at a distance and the crew will not approach the nest at a distance deemed to cause disturbance to the geese. The crew will attempt to film the goose colony using a UAV. This will be done after egg laying and prior to hatching and fledging when all geese will be on the ground and on the nest. These flights will only be done at the strict discretion of the research scientists.

# **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**

**Description de l'environnement existant : Environnement biologique**

**Description de l'environnement existant : Environnement socio-économique**

**Miscellaneous Project Information**

**Identification des répercussions et mesures d'atténuation proposées**

**Répercussions cumulatives**

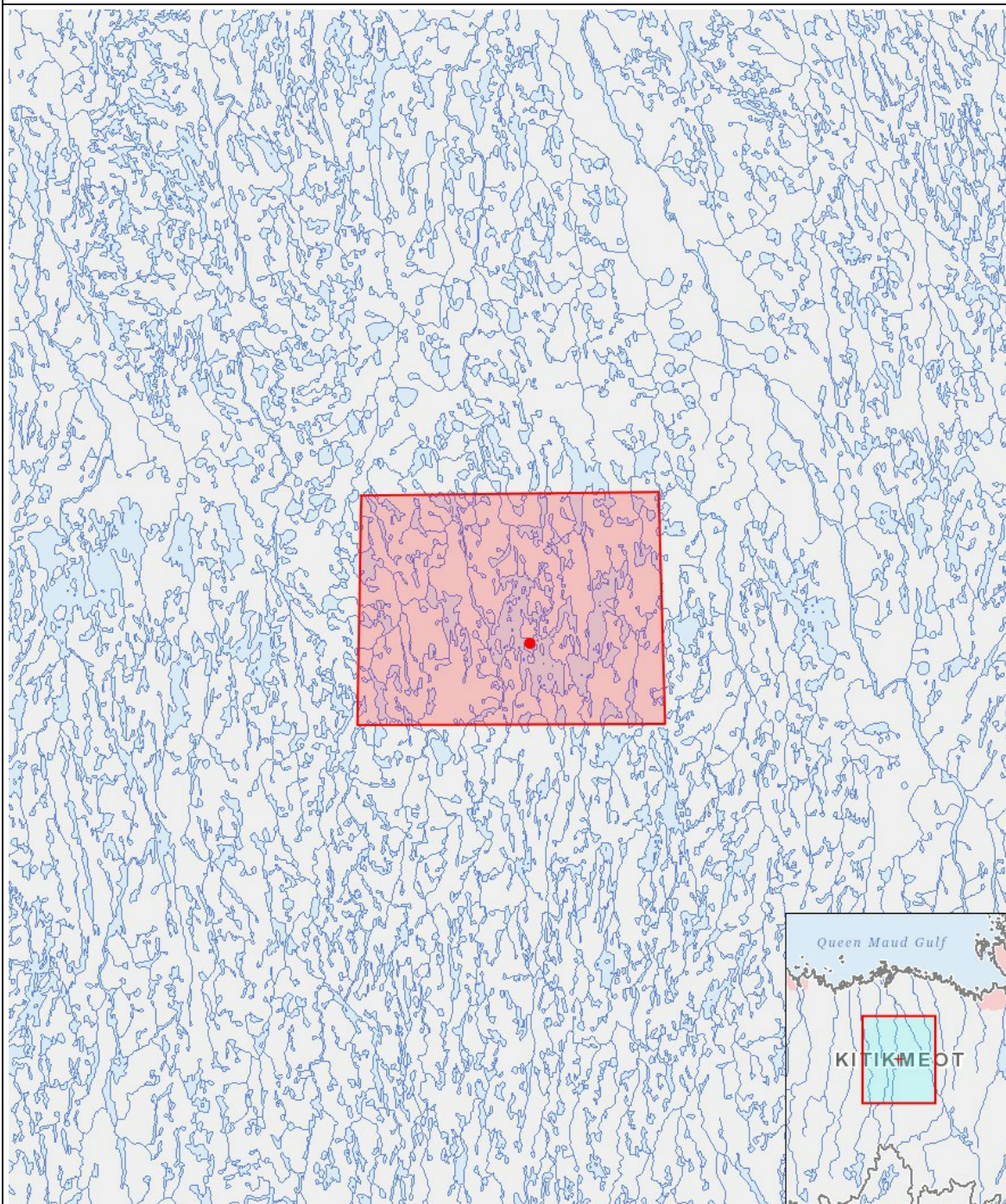
# Impacts

## 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
<b>Construction</b>																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Exploitation</b>																									
Scientific/International Polar Year Research	-	-	-	-	N	-	-	-	-	-	-	-	-	-	-	N	N	-	N	P	-	-	-	-	-
<b>Désaffectation</b>																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

## Site du projet



## Liste des géométries de projet

- |   |         |                              |
|---|---------|------------------------------|
| 1 | polygon | New project geometry         |
| 2 | point   | Karrak Lake Research Station |