



Demande de la CNER faisant l'objet d'un examen préalable #126184

Assessment of population dynamics of waterfowl in the central Arctic

Type de demande : New

Type de projet: Scientific Research

Date de la demande : Friday, May 9, 2025

Period of operation: from 2025-05-13 to 2029-07-13

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DÉTAILS

Description non technique de la proposition de projet

- Anglais: This project seeks to establish a long-term camp at Anderson Bay on Victoria Island (about 40 km east of Cambridge Bay) to study the population dynamics of lesser snow geese and Ross's geese (i.e., light geese) annually from June to July. The project is led by Mitch Weegman, Ducks Unlimited Canada Endowed Chair in Wetland and Waterfowl Conservation, and an Associate Professor, at the University of Saskatchewan. While light goose demography was studied nearly continuously since 1991 at Karrak Lake (Queen Maud Gulf [Ahiak] Migratory Bird Sanctuary) by Ray Alisauskas, the colony has declined rapidly and logistics are increasingly difficult. At the same time, the colony at Anderson Bay has increased rapidly over the last 10 years. The presence and increase in the colony has been of great interest to community members in Cambridge Bay. Further, information about the population dynamics of light geese is required by the Canadian and US governments to inform management plans for these species, as well as harvest regulations. I am proposing to move the work on breeding biology of lesser snow geese and Ross's geese from Karrak Lake to Anderson Bay. We will conduct a comprehensive project, following Karrak Lake best practices, to study arrival condition of birds, nest initiation and fate, clutch size, and other Arctic ecosystem components such as vegetation monitoring through exclosures, sea duck (king eider) population ecology, and small mammal indices.
- Français: The work only occurs near Cambridge Bay (so I have provided proposal descriptions in English and Innuinnaqtun).
- Inuktitut: The work only occurs near Cambridge Bay (so I have provided proposal descriptions in English and Innuinnaqtun).
- Inuinnaqtun: Hapkua havaaghakkut aullaqtittiyumayut hivituyumik aulaghaaqtughamik tupiqtuqvingmik Iqallivingmi Kiilliniqmi (ungahiaqtuq 40 km-mik kivalliqhianit Iqaluktuuttiaq) qauyihariamik pitquhiit kanguit (taapkuatut, nirlirniit) ukiuq tamaat June-mit July-mut. Hapkua havaanguyut hivuliqtuqtauyut Mitch Weegman-mit, Ducks Unlimited Canada-mit Manighaqtitauvaktut Ighivautalik Kinipaumayunit Tingmitjat Huratjallu Hapummiyiit, Ikayuqtiupluni Ilaiyiryuaq, Ilihaqpaalliqvianit Saskatchewan-mi. Qauyihagtauhimagaluaqhutik aulahimmaaqtumik 1991-mit Karrak Tahianit (Ahiaqmi Tingmitjat Nayugaanit) taaffuminnga Ray Alisauskas, huratjat ikighivaalliqhimayut kayumiktumik aullaarutillu ikayuutillu ayuqnaqhivalliyut. Atauttikkullu, huratjat Iqallivingmi amigaiqpaalliqhimayut 10-nguliqtunit ukiunit. Tikiqattaramik amigaiqpalliagamiklu tingmitjat ihumagivallialiqtait nunallaarmiut Iqaluktuuttiaqmi. Ahiagullu, naunaitkutait naatjuhiinut kanguit piyumayauvaktut Kanatamit Amialikamillu kavamainit naunaiyautighait ataniqtuqtuiyut parnaiyautainik hapkununnga huratjanut, taapkununngalu niqighaqhiurniqmut maliktaghanut. Tughirautimnit nuuttittiyumayunga havaanguyunik ivayunik kangurnik talvanngat Karrak Tahianit Iqallivingmut. Qauyihaittiarahuat havaanginnik, malighugit Karrak Tahianit havauhittianik, qauyihariamiklu tikilvianit qanurininganiit, upluliuqviat, qaffiungmangaat maniit, ahiniklu Ukiuqtaqtumi nauyunut ilauyut taapkuatut nauttianik munaqhiyut nirriiviniit, taryumiutanik huratjanik (qingaliit) naatjuhiinik nayugainik, mikiyullu uumayut.

Personnel

Personnel on site: 8

Days on site: 300

Total Person days: 2400

Operations Phase: from 2025-05-13 to 2029-07-13

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
Anderson Bay snow goose and Ross's goose nesting colony, where I propose to study the birds annually May-August. We will select a temporary camp site in June 2025, within the highlighted polygon. There are no known archaeological or paleontological historical sites in this area.	Researching	Inuit Owned Surface Lands	The shaded polygon (Anderson Bay) seasonally comprises a nesting colony of lesser snow geese and Ross's geese that numbers about 300,000 individuals. The colony has rapidly expanded in size, for reasons not understood. I propose to study the breeding biology of the colony annually from June to July with a camp in the polygon.	No known value.	Approximately 40 km east/southeast of Cambridge Bay.

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Cambridge Bay	Beverly Maksagak	Ekaluktutiak Hunters and Trappers Organization	2025-02-18
Cambridge Bay	Beverly Maksagak	Ekaluktutiak Hunters and Trappers Organization	2025-03-04
Cambridge Bay	Beverly Maksagak	Ekaluktutiak Hunters and Trappers Organization	2025-03-27
Cambridge Bay	Beverly Maksagak	Ekaluktutiak Hunters and Trappers Organization	2025-04-25
Cambridge Bay	Beverly Maksagak	Ekaluktutiak Hunters and Trappers Organization	2025-05-06

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
Service canadien de la faune	Scientific permit to study breeding biology of lesser snow geese and Ross's geese by monitoring nest incubation status and nest outcome (success/failure). The permit also will cover breeding biology of king eiders (a sea duck nesting at Anderson Bay).	Applied, Decision Pending		
Office des eaux du Nunavut	Applied for use of water or deposit of waste without a licence (we are using water for drinking and will have minimal waste).	Applied, Decision Pending		
Gouvernement du Nunavut, ministère de l'Environnement	Nunavut wildlife research permit to study breeding biology of snow geese and king eiders at Anderson Bay.	Applied, Decision Pending		
Autre	University of Saskatchewan animal use protocol for research on snow goose breeding biology at Anderson Bay.	Active	2025-02-28	
Autre	University of Saskatchewan animal use protocol for research on king eider breeding biology at Anderson Bay.	Active	2025-03-10	
Kitikmeot Inuit Association	Note the KIA replied to me that instead of a class 3 licence (as mentioned in my NPC application), this will be an exemption	Applied, Decision Pending		

	certificate because the camp is temporary annually.			
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Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	We will visit the Anderson Bay snow goose colony by helicopter from Cambridge Bay.	

Project accomodation types

Temporary Camp

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
Helicopter	1	12x10x3 m	I propose to study build a temporary camp at Anderson Bay, and will sling all equipment/supplies to Anderson Bay via helicopter from Cambridge Bay. The helicopter will carry 6 people from Cambridge Bay to Anderson Bay. The camp will be temporary, built in June 2025 and taken down/completely removed by late July 2025. The demobilization will also happen via helicopter.

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
Aviation fuel	fuel	8	55	440	Gallons	We will refuel the helicopter at Cambridge Bay airport.

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
5	In buckets from melt rivers.	Near our temporary camp at Anderson Bay (we will choose the exact camp location within the nesting snow goose colony in June 2025).

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Researching	Déchets combustibles	120 kg annually	I propose to either bury food waste in latrine pits near camp at Anderson Bay, or fly out waste via slinging from a helicopter at the end of each field season. The buried waste would be covered with native material, same as described for burying sewage.	The estimate of 120 kg annually comes from an estimate of 0.25 kg of food waste produced per person per day, a crew of 8 people and a temporary camp of 60 days annually. This estimate is from Ray Alisauskas's long-term camp at Karrak Lake.
Researching	Eaux usées (matières de vidange)	480 kg annually	I propose to bury sewage in latrine pits near camp at Anderson Bay. The pits are immediately covered with native material. From work at Karrak Lake (a long-term camp studying snow geese, led by Ray Alisauskas), after a few years, revegetation was evident.	The 480 kg of sewage is estimated from an average of 1 kg of sewage produced per day person, 8 people in a camp for 60 days annually.

Répercussions environnementales :

There should be no negative effects of this work because the camp is temporary (mobilized and demobilized each summer). This work will result in several positive environmental impacts on wildlife and their habitats, particularly birds and the Arctic ecosystem they live in. This project will assess links between snow goose, Ross's goose and king eider reproductive success (clutch size, nest success/failure) and habitat and weather information (precipitation and temperature). Results from this work will inform revisions to conservation and management plans for these species to ensure sustainable populations. Lastly, the goose colony provides a source of food via eggs and geese/eiders for community members. Understanding colony dynamics could be important for forecasting food security of these birds for community members. Further, avian influenza is causing human health concerns. This project will provide an understanding of the current and potential colony size with regular monitoring for sick/dead individual geese, to link with ongoing monitoring for avian influenza in the Canadian prairies. Take together, this work provides a comprehensive package of bird and habitat benefits, community employment and infrastructure, and data to support nationwide monitoring to maximize human health.

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

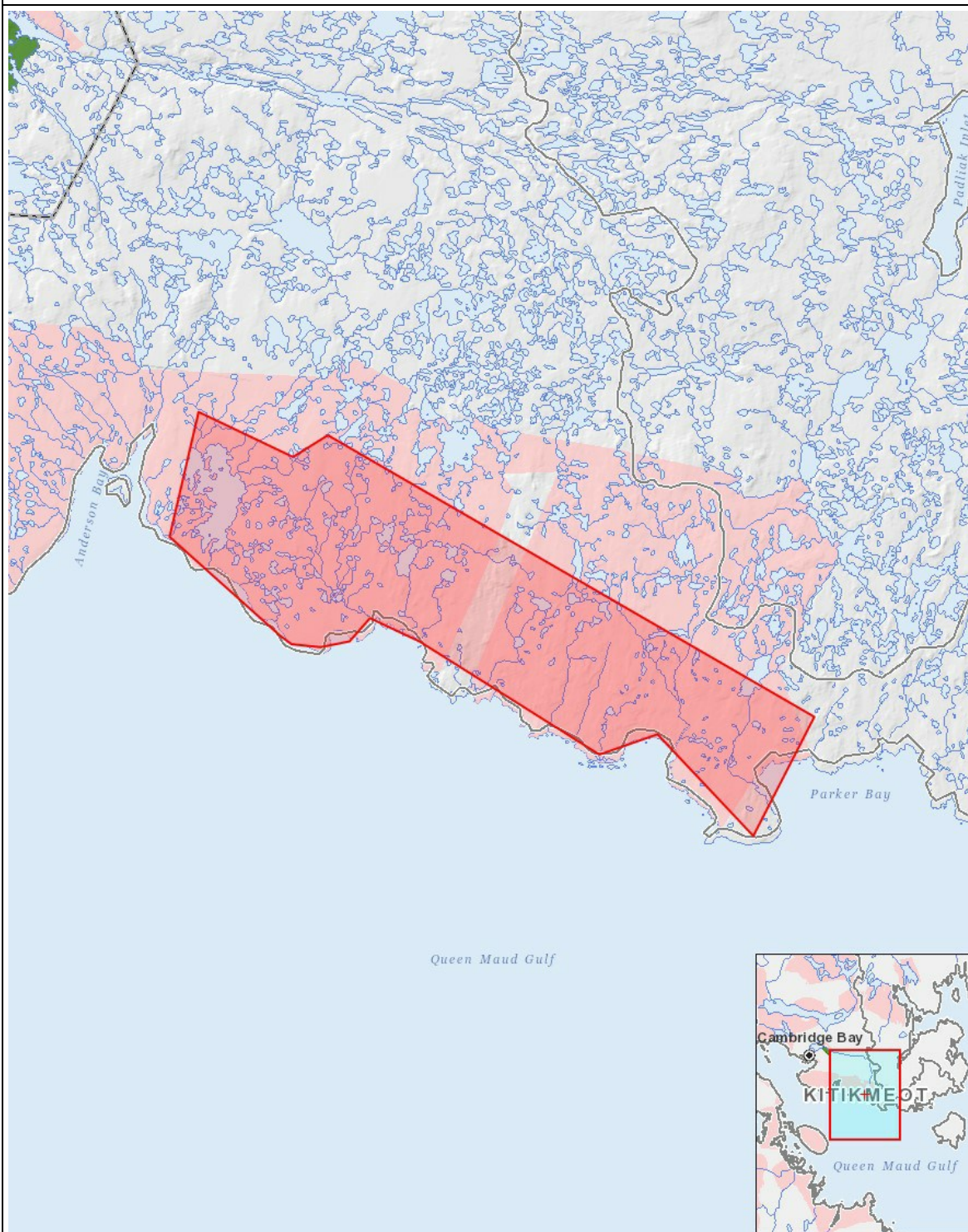
Impacts

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
Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exploitation		-	-	-	-	-	-	-	-	-	-	-	-		-	P	P	-	-		-	P	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 Anderson Bay snow goose and Ross's goose nesting colony, where I propose to study the birds annually May-August. We will select a temporary camp site in June 2025, within the highlighted polygon. There are no known archaeological or paleontological historical sites in this area.