

DÉTAILS

Description non technique de la proposition de projet

Anglais: The GeoNest Arctic Collection is a proposed network of three seasonal, off grid wilderness lodges located in areas of natural significance across the Canadian Arctic. The project combines low impact eco tourism, wildlife observation, scientific research, filmmaking and photography while supporting Inuit and local community participation and economic opportunities. Unless specifically identified under an individual lodge, all quantities and operational information in this application represent the combined anticipated seasonal requirements of all three proposed sites. The project will be developed in phases, with Admiralty Inlet planned as the first lodge to be established. The remaining sites will follow as approvals, community consultation, logistics and operational conditions allow. Each lodge will accommodate a maximum of approximately 14 people, consisting of 7 guests and 7 staff. Each lodge will use semi permanent, movable structures designed to avoid permanent foundations and minimize ground disturbance. Guest accommodations will generally house two people, while staff accommodations may house up to four people in bunk beds. Each lodge will have dedicated equipment stationed at its designated site rather than routinely transferred between lodges. Power will primarily use solar and wind, supplemented by fuel efficient generators. Quantities provided for oil, aviation fuel, gasoline, propane, batteries, lubricants and other hazardous materials represent the combined anticipated requirements of all three sites and will be divided according to each site's needs. Each site will have designated fuel storage with appropriate secondary containment or berming and spill prevention and response equipment. Water consumption and waste quantities provided in the application similarly represent the combined anticipated requirements of all three sites. Sewage, greywater, solid waste, hazardous waste and combustible waste will be securely managed to prevent wildlife access and contamination. All combustible waste will be removed from each site at the end of every operating season for appropriate off site disposal. Wildlife safety will be integral to operations. Each occupied lodge will maintain around the clock wildlife monitoring. Electric bear fencing where required, wildlife deterrents, secure food and waste storage, satellite/radio communications and emergency procedures will be used. Guests outside secured areas will be accompanied by appropriate guides.

Admiralty Inlet Lodge | Arctic Bay Located near Arctic Bay, this lodge will accommodate up to 14 people, approximately 7 guests and 7 staff. The seasonal operating period will be May through September. Construction phase: October 1, 2025 to May 1, 2027. Operation period: May 1, 2027 to October 1, 2030, with an extension if approved through the appropriate communities and NIRB processes. Admiralty Inlet will be the first lodge developed. Its primary focus will be narwhals and killer whales. Guests will travel primarily by Zodiac and, where conditions permit, snowmachine. The lodge will also support telemetry, acoustic monitoring, scientific research, filmmaking and photography. Site equipment: small vessel, Zodiacs, kayaks, snowmachines, marine safety and wildlife deterrent equipment, satellite/radio communications and research equipment. Equipment will remain stationed at the site.

Cunningham Bay Lodge | Prince of Wales Island Located on the southern shore of Cunningham Bay, this lodge will accommodate up to 14 people, approximately 7 guests and 7 staff. The seasonal operating period will be July through September. Construction phase: October 1, 2025 to May 1, 2027. Operation period: May 1, 2027 to October 1, 2030, with an extension if approved through the appropriate communities and NIRB processes. The lodge will focus on polar bears, belugas and narwhals. Activities will include guided Zodiac excursions, kayaking, ATV travel and shore based wildlife observation. It will also support research teams, filmmakers and photography workshops. Site equipment: Zodiacs, ATVs, kayaks, marine safety and wildlife deterrent equipment and satellite/radio communications. Equipment will remain stationed at Cunningham Bay.

Ellesmere Island | Slidre Fiord Located at the head of Slidre Fiord near Eureka, this lodge will accommodate up to 14 people, approximately 7 guests and 7 staff. The seasonal operating period will be March through September. Construction phase: October 1, 2025 to May 1, 2027. Operation period: May 1, 2027 to October 1, 2030, with an extension if approved through the appropriate communities and NIRB processes. The lodge will focus on Arctic wolves, muskoxen and other High Arctic wildlife while supporting scientific, film and photography projects. Activities will be managed to avoid interference with the Eureka weather and research station. Site equipment: SHERP vehicle(s), ATVs, snowmachines, Zodiacs and kayaks where seasonally appropriate, wildlife safety equipment and satellite/radio communications. Equipment will remain stationed at Slidre Fiord. Together, the three lodges form one interconnected Arctic project focused on minimal environmental impact, dedicated site based equipment, responsible fuel and waste

management, wildlife safety, scientific research and meaningful community participation.

Français: La collection arctique GeoNest est un réseau proposé de trois lodges saisonniers hors réseau, situés dans des régions d'importance naturelle à travers l'Arctique canadien. Le projet combine l'écotourisme à faible impact, l'observation de la faune, la recherche scientifique, la réalisation cinématographique et la photographie, tout en favorisant la participation des Inuits et des communautés locales ainsi que les retombées économiques pour celles-ci. Sauf indication contraire pour un lodge particulier, toutes les quantités et informations opérationnelles présentées dans cette demande représentent les besoins saisonniers combinés prévus pour les trois sites proposés. Le projet sera développé par étapes, le lodge d'Admiralty Inlet étant prévu comme le premier établissement à être mis en place. Les autres sites suivront au fur et à mesure de l'obtention des autorisations, des consultations communautaires, de la mise en place de la logistique et lorsque les conditions opérationnelles le permettront. Chaque lodge pourra accueillir un maximum d'environ 14 personnes, soit 7 clients et 7 membres du personnel. Chaque lodge utilisera des structures semi permanentes et déplaçables, conçues afin d'éviter les fondations permanentes et de minimiser les perturbations du sol. Les hébergements destinés aux clients accueilleront généralement deux personnes, tandis que ceux destinés au personnel pourront accueillir jusqu'à quatre personnes dans des lits superposés. Chaque lodge disposera de son propre équipement, qui restera sur son site désigné plutôt que d'être régulièrement transféré entre les différents lodges. L'alimentation électrique reposera principalement sur l'énergie solaire et éolienne, complétée par des génératrices à faible consommation de carburant. Les quantités indiquées pour l'huile, le carburant d'aviation, l'essence, le propane, les batteries, les lubrifiants et les autres matières dangereuses représentent les besoins combinés prévus pour les trois sites et seront réparties en fonction des besoins propres à chacun. Chaque site disposera d'une zone désignée pour le stockage du carburant, équipée de systèmes appropriés de confinement secondaire ou de bermes ainsi que de matériel de prévention et d'intervention en cas de déversement. Les quantités d'eau consommée et de déchets indiquées dans la demande représentent également les besoins saisonniers combinés prévus pour les trois sites. Les eaux usées, les eaux grises, les déchets solides, les déchets dangereux et les déchets combustibles seront gérés et entreposés de manière sécurisée afin d'empêcher l'accès de la faune et de prévenir toute contamination. Tous les déchets combustibles seront retirés de chaque site à la fin de chaque saison d'exploitation afin d'être éliminés de manière appropriée hors site. La sécurité liée à la faune fera partie intégrante des opérations. Chaque lodge occupé assurera une surveillance de la faune 24 heures sur 24. Des clôtures électriques contre les ours, lorsque nécessaires, des dispositifs de dissuasion de la faune, des installations sécurisées pour l'entreposage de la nourriture et des déchets, des communications par satellite et radio ainsi que des procédures d'urgence seront utilisés. Les clients se trouvant à l'extérieur des zones sécurisées seront accompagnés par des guides qualifiés.

Admiralty Inlet Lodge | Arctic Bay
Situé près d'Arctic Bay, ce lodge pourra accueillir jusqu'à 14 personnes, soit environ 7 clients et 7 membres du personnel. La période saisonnière d'exploitation s'étendra de mai à septembre. Phase de construction : du 1er octobre 2025 au 1er mai 2027. Période d'exploitation : du 1er mai 2027 au 1er octobre 2030, avec possibilité de prolongation sous réserve de l'approbation des communautés concernées et des processus appropriés de la CNER/NIRB. Admiralty Inlet sera le premier lodge développé. Il sera principalement axé sur l'observation des narvals et des épaulards. Les déplacements des clients se feront principalement en Zodiac et, lorsque les conditions le permettront, en motoneige. Le lodge soutiendra également des activités de télémétrie, de surveillance acoustique, de recherche scientifique, de réalisation cinématographique et de photographie. Équipement sur place : petite embarcation, Zodiacs, kayaks, motoneiges, équipement de sécurité maritime et de dissuasion de la faune, systèmes de communication par satellite et radio, ainsi que du matériel de recherche. L'équipement restera stationné sur le site.

Cunningham Bay Lodge | Île du Prince de Galles
Situé sur la rive sud de Cunningham Bay, ce lodge pourra accueillir jusqu'à 14 personnes, soit environ 7 clients et 7 membres du personnel. La période saisonnière d'exploitation s'étendra de juillet à septembre. Phase de construction : du 1er octobre 2025 au 1er mai 2027. Période d'exploitation : du 1er mai 2027 au 1er octobre 2030, avec possibilité de prolongation sous réserve de l'approbation des communautés concernées et des processus appropriés de la CNER/NIRB. Le lodge sera principalement axé sur l'observation des ours polaires, des bélugas et des narvals. Les activités comprendront des excursions guidées en Zodiac, du kayak, des déplacements en VTT et l'observation de la faune depuis la terre ferme. Le lodge accueillera également des équipes de recherche, des équipes de tournage et des ateliers de photographie. Équipement sur place : Zodiacs, VTT, kayaks, équipement de sécurité maritime et de dissuasion de la faune ainsi que systèmes de communication par satellite et

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Inuinnaqtun: GeoNest Arctic Collection pingahunik ukiuqtaqtumi ukiup ilaani atuqtauyunik, off grid wilderness lodge nik havaaqhatut ihumaliuqtauhimayuq Kanatami Ukiuqtaqtumi avatimut pingaarutilinni. Havaaq mikiyumik avatimut aktuiniqaqtumik eco tourism, uumayunik tautuktarnikkut, scientific research, filmmaking photography lu katitiqtait, Inuit nunallaanillu ilauqatigiingniq maniliurutikhaniklu ikayuqhugit. Atauttimut lodge mut immikkut naunaiyaqhimannigippat, una qinnuteqautimi qaffiuniit havauhiillu pingahut sites tamarmik katitaullutik ukiup ilaani atuqtauyukhatigut naunaqtauyut. Havaaq tahapkununga aviktuqhugu havaariyauniaqtuk, Admiralty Inlet hivulliqpaami sanayauluni. Aallat sites kingulliullutik sanayauniaqtut approvals, community consultation, logistics havauhiillu naamaktumik piyaukpata. Lodge tamaat 14 nik inungnik inigiyauyunnartuq, 7 guest nit 7 staff nitlu. Lodge tamaat semi permanent, nuutauyunnartunik iglunik atuqniaqtut, permanent foundation nik atuqtailutik nuna mikiyumik aktuqtauyukhaq. Guest accommodation tamaat marluk inungnut naatsorsuutauniaqtut, staff accommodation lu hitamanik inungnik bunk bed nit atuqhutik inigiyauyunnartut. Lodge tamaat namminiq equipment qakniaqtuq, equipment lu site mut atugakhauyuq tamaaniittuaannarluni, lodge mit lodge mut atuqtauyuaqhimaittumik. Pauwaq hiqiniqmit anurimitlu pijauniaqtuk, fuel efficient generator nit ikayuqtuqhugit. Oil, aviation fuel, gasoline, propane, batteries, lubricants aallallu hazardous materials qaffiuniit naunaiyaqhimayut pingahut sites tamarmik katitaullutik atuqtauyukhatigut naunaiyaqhimayut, site tamaat atuqtauyukhat malillugit aviktuqtauniaqtut. Site tamaat namminiq fuel storage area qakniaqtuq, secondary containment imaluunniit berming atuqtuq, spill prevention equipment spill response equipment lu tamaaniittuq. Imaq atuqtauyukhaq waste lu qaffiuniit una qinnuteqautimi naunaiyaqhimayut pingahut sites tamarmik katitaullutik atuqtauyukhat. Sewage, greywater, solid waste, hazardous waste combustible waste lu qayangnaqtumik tutquqtauyut uumayut tikittaililugit avatilu halumattittumallugu. Combustible waste tamarmik site tamaat season nunguppat piiqtauyut, off site disposal mut aullaqtitauyut. Uumayunut qayangnaittumik havakniq havauhimut pingaarutilik. Lodge atuqtauyuk tamaat 24 hour wildlife monitoring atuqtauyuk. Electric bear fencing ihariahukkaangat atuqtauyut, wildlife deterrents, niqinik waste niklu qayangnaqtumik tutquumaviit, satellite/radio communications emergency procedures lu atuqtauyut. Guest t secured area nit anigumik appropriate guide mit ilaqartitauniaqtut. Admiralty Inlet Lodge | Arctic Bay Arctic Bay qanitquaniittuq una lodge 14 nik inungnik inigiyauyunnartuq, 7 guest nit 7 staff nitlu. Seasonal operating period May mit September mut. Construction phase: October 1, 2025 to May 1, 2027. Operation period: May 1, 2027 to October 1, 2030, extension pihimayunnaqtuk appropriate communities NIRB lu angiqpata. Admiralty Inlet hivulliqpaami sanayauniaqtuk. Primary focus narwhal nit killer whale nitlu. Guest t Zodiac nit aullaqattaqtut, conditions naammaniqpata snowmachine nit atuqhutik. Lodge telemetry, acoustic monitoring, scientific research, filmmaking photography lu ikayuqtaaqtaa. Site equipment: small vessel, Zodiacs, kayaks, snowmachines, marine safety equipment, wildlife deterrent equipment, satellite/radio communications research equipment lu. Equipment site miittuaannaniaqtuq. Cunningham Bay Lodge | Prince of Wales Island Cunningham Bay ningianni hinaaniittuq una lodge 14 nik inungnik inigiyauyunnartuq, 7 guest nit 7 staff nitlu. Seasonal operating period July mit September mut. Construction phase: October 1, 2025 to May 1, 2027. Operation period: May 1, 2027 to October 1, 2030, extension pihimayunnaqtuk appropriate communities NIRB lu angiqpata. Lodge polar bear nit, beluga nit, narwhal nitlu tautuktarnikkut atuqtauyuk. Havaqatit guided Zodiac excursion nit, kayaking, ATV travel, shoreline wildlife observation lu ilaliutiyut. Research team nit, filmmaker nit photography workshop nitlu base camp nguqtaaqtuq. Site equipment: Zodiacs, ATVs, kayaks, marine safety equipment, wildlife deterrent equipment, satellite/radio communications. Equipment Cunningham Bay miittuaannaniaqtuq. Ellesmere Island | Slidre Fiord Slidre Fiord naatiani Eureka qanitquaniittuq una lodge 14 nik inungnik inigiyauyunnartuq, 7 guest nit 7 staff nitlu. Seasonal operating period March mit September mut. Construction phase: October 1, 2025 to

May 1, 2027. Operation period: May 1, 2027 to October 1, 2030, extension pihimayunnaqtuk appropriate communities NIRB lu angiqpata. Lodge Arctic wolf nit, muskox nit aallallu High Arctic wildlife tautuktarnikkut atuqtauuyuk, scientific, film photography project nitlu ikayuqtuqhugit. Havaqatit Eureka weather and research station mut akornutaunaittumik munarijauniaqtut. Site equipment: SHERP vehicle(s), ATVs, snowmachines, Zodiacs kayaks lu season malillugu, wildlife safety equipment, satellite/radio communications. Equipment Slidre Fiord miittuaannaniaqtuq. Pingahut lodge t tamarmik atauhiq interconnected Arctic project nguqhutik, avatimut mikiyumik aktuiniq, site tamaat dedicated equipment, fuel waste management nakuuyumik havakniq, wildlife safety, scientific research meaningful community participation lu tunngavingalugit.

Personnel

Personnel on site: 38

Days on site: 284

Total Person days: 10792

Operations Phase: from 2025-09-18 to 2027-05-19

Operations Phase: from 2027-05-19 to 2030-09-18

Post-Closure Phase: from to

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
Location of GeoNest Lodge Connigham Bay	Camp	Crown	n/a	None has been found or identified at this time.	The lodge location at Connigham Bay is 280km from Taloyoak and 350km from Gjoa Haven. The proximity to the nearest protected area is over 300km
Location of GeoNest Lodge Admiralty Inlet	Camp	Crown	n/a	None has been found or identified at this time.	The lodge location at Admiralty Inlet is 70km from the community of Arctic Bay and 150km from the nearest protected area
GeoNest lodge, option one Ellesmere Island	Camp	Crown	n/a	None has been found or identified at this time.	Our number one pick for a lodge location on Ellesmere Island is 20km from Eureka and 400km from Grise Fjord. The proximity to the nearest protected area is over 200km
GeoNest lodge, option two Ellesmere Island	Camp	Crown	n/a	None has been found or identified at this time.	Our number two pick for a lodge location on Ellesmere Island is 15km from Eureka and around 400km from Grise Fjord. The proximity to the nearest protected area is 200km

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
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Arctic Bay	Various members of the local community	Arctic Bay HTA	2026-02-01
Resolute Bay	Various members of the local community	Resolute HTA	2026-02-01
Grise Fiord	Various members of the local community	Grise Fjord HTA	2026-02-01

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Transboundary
Kitikmeot
North Baffin

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Nunavut Planning Commission	NPC File # 150927	Active	2026-01-09	
Office des eaux du Nunavut	Type B License	Not Yet Applied		
Gouvernement du Nunavut, ministère de l'Environnement	Wildlife Observation Licence	Not Yet Applied		
Crown Indigenous Relations and Northern Affairs Canada	Class A Land Use Permit	Not Yet Applied		
Gouvernement du Nunavut, ministère du Développement économique et des Transports	0	Not Yet Applied		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	Fixed-wing aircraft will be used to transport guests from regional communities, both locally and from more distant hubs, to access the project areas	
Water	Boats will be used primarily in Admiralty Inlet and Coningham Bay to transport guests between landing areas and camp locations and to support guided marine-based excursions	
Land	Sherps and snowmachines will be used to transport guests from aircraft landing areas to camp and for guided land-based excursions where walking or boat access is not feasible.	

Project accomodation types

Temporary 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
ATV	6	500 lbs	Transport of tourists and wildlife viewing, each ATV will also have a small trailer. Split between Conningham and Ellesmere Island
Sherp	2	5,640 lbs	Transport of tourists and wildlife viewing, each Sherp will also have a trailer at the Ellesmere Island Site
Snow Machine	6	700lbs	Transport of tourists and wildlife viewing, each snow machine will also have a sled or komatik. Split between all three sites
Kayak	10	100 lbs	Wildlife viewing and activities split between the three sites
Zodiac	5	350 lbs	Safety and wildlife viewing two at Admiralty, two at Conningham, and one on Ellesmere Island
Kingfisher Boat	1	9510 lbs	Transport of tourists and wildlife viewing at Admiralty Inlet and Fireweed Island

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	20	205	4100	Liters	Fuel cache for helicopters and twin otter for safety split between Ellesmere and Conningham
Propane	fuel	25	100	2500	Lbs	Gas for cooking and heating split between all three camps
Gasoline	fuel	25	205	5125	Liters	Fuel for Zodiac and Sherp split between all three camps
Oil	hazardous	20	40	800	Liters	Maintenance between all three camps

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
2	Split between all three camps. Small-scale surface water collection by pump at each site	Split between all three camps. Seasonal snow melt and nearby freshwater sources at each site

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Tourism Activities	Déchets combustibles	0.02 m ³ /day ~5–10 m ³ /season	Collected in sealed containers, compacted where possible and removed from site each season	Amount per all three properties. Removed from site each season for disposal at an approved facility in southern Canada. No burning on site.
Tourism Activities	Eaux grises	0.5–0.8 m ³ /day ~75 m ³ /season	Collected in holding tanks.	Amount per all three properties. Screened for solids, stored, and removed from site at season's end. Possible leaching bed
Tourism Activities	Déchet dangereux	~200–400 L/season	Stored in clearly labelled sealed containers, secondary containment in place.	Amount per all three properties. Removed annually for disposal at approved southern facilities.
Tourism Activities	Déchets non combustibles	0.01 m ³ /day ~3–5 m ³ /season	Sorted, stored in drums or crates.	Amount per all three properties. Backhauled annually for approved recycling or disposal.
Tourism Activities	Eaux usées (matières de vidange)	0.1 m ³ /day ~15 m ³ /season	Composting toilets, biological treatment and portable camp-style low-flush toilets and sealed holding tanks.	Amount per all three properties. All sewage collected and removed south at season's end. No pit privies or land discharge.

Répercussions environnementales :

The GeoNest Arctic Collection is a small scale, seasonal, low impact tourism and research project. With a maximum of approximately 14 people per lodge, predicted impacts are expected to be localized, temporary and manageable. Potential impacts include temporary wildlife disturbance from human presence, boats, snowmachines, ATVs, SHERP vehicles and aircraft. Activities will be guide supervised, appropriate wildlife distances maintained, and routes or activities modified when necessary to avoid disturbance. Movable and semi permanent structures will minimize impacts to vegetation, soil and shorelines. Vehicle travel will be limited where practical. Marine activities will operate cautiously around wildlife and avoid pursuing, surrounding or separating animals. Fuel and hazardous materials will be securely stored with secondary containment and spill response equipment. Water use will be minimized through conservation measures. Sewage, greywater, solid waste and hazardous waste will be securely managed to prevent wildlife access or contamination. Combustible waste will be removed from each site at the end of each season. Bear fencing, wildlife deterrents, secure food and waste storage and around the clock wildlife monitoring will reduce human wildlife conflicts. Positive impacts include Inuit and local employment, guiding opportunities, scientific research, wildlife monitoring and increased knowledge of Arctic ecosystems. Overall impacts are expected to be seasonal, localized and reversible.

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 proposed project areas at Coningham Bay, Admiralty Inlet, and Ellesmere Island are located in remote regions of the Canadian Arctic. Existing physical components include seasonal marine routes, informal landing areas, traditional Inuit travel corridors, and limited temporary trails associated with seasonal land use. No permanent road networks are present. The project sites are not located withi, but may be adjacent (20km or less) to regions of recognized ecological, cultural, and environmental importance. These include designated or proposed protected areas, national parks, and marine conservation planning zones, as well as Inuit heritage sites and long-established harvesting areas. The surrounding environment includes sensitive marine habitats, recreational and subsistence use areas, sport and commercial fishing zones, breeding and nursery areas for marine mammals, and known migration routes for both terrestrial and marine species. The physical landscape includes a range of unique Arctic landforms such as eskers, raised beaches, gravel plains, wetlands, floodplains, glacial valleys, and fjords. Ellesmere Island is dominated by polar desert terrain, exposed bedrock, glaciers, and rugged mountains, while Coningham Bay and Admiralty Inlet include tundra lowlands, coastal flats, and steep fjord systems shaped by glacial processes. Surface and bedrock geology consists primarily of ancient crystalline and sedimentary formations. While regional seismicity is low, localized slope instability, erosion, and rockfall may occur in steep terrain, particularly along fjords and coastal cliffs. Seasonal thaw may result in thermokarst features, ice lenses, and minor ground subsidence in tundra areas. All project areas are underlain by continuous permafrost, with a shallow active layer that thaws during the summer months. Permafrost depth and stability vary depending on topography, soil composition, and proximity to water bodies. Taliks may occur beneath lakes, rivers, and nearshore marine environments. Topography across the sites ranges from low-lying coastal tundra and gently sloping shorelines to steep cliffs, fjords, mountainous terrain, and glaciated valleys. Elevation changes are most pronounced on Ellesmere Island, where rugged terrain and glaciers dominate the landscape. Soils are thin, poorly developed, and nutrient-poor, with limited organic content. Sediments range from coarse gravels and sands to finer materials in wetlands, floodplains, and marine environments. Due to cold temperatures and short growing seasons, natural recovery from disturbance is slow. Hydrological features include small lakes, ponds, seasonal streams, wetlands, and meltwater channels that form during the summer thaw. Watershed boundaries are influenced by permafrost conditions and glacial history. Surface water flow is highly seasonal, with peak flows occurring during snowmelt and periods of increased precipitation. Marine environments are strongly influenced by seasonal sea ice, tidal processes, bathymetry, and ocean currents. Fjords and embayments vary in depth and circulation patterns, affecting both ecological conditions and navigation. Ice conditions play a critical role in shaping coastal processes and accessibility. Water quality across the project areas is generally high due to limited industrial activity, though freshwater systems are sensitive to contamination because of low dilution capacity. Water quantity varies seasonally and is dependent on precipitation, snowmelt, and glacial runoff. Air quality is pristine, with minimal anthropogenic emissions. Existing air quality conditions are influenced primarily by natural processes, with occasional localized emissions from seasonal vessel or aircraft activity. The climate is polar, characterized by long, cold winters and short, cool summers. Weather conditions can change rapidly, with strong winds, fog, and storms common. Climate change is already affecting sea ice extent, permafrost

stability, hydrology, and coastal erosion, with projected trends indicating continued warming and increased environmental variability. Ambient noise levels are very low and dominated by natural sources such as wind, ice movement, and wildlife. Human-generated noise is infrequent, seasonal, and typically associated with vessel traffic or aircraft operations. Additional physical valued ecosystem components identified through literature review and Inuit knowledge include sea ice integrity, coastal erosion zones, visibility conditions, landscape integrity, and traditional access routes, all of which are important for wildlife habitat, safe travel, and cultural land use.

Description de l'environnement existant : Environnement biologique

The proposed project areas at Coningham Bay, Admiralty Inlet, and Ellesmere Island support Arctic ecosystems characterized by high biological sensitivity, strong seasonal variation, and close ecological linkages between marine, coastal, and terrestrial environments. Biological productivity is generally low compared to southern ecosystems; however, these regions support species of high ecological, cultural, and subsistence importance. Vegetation across the project areas is limited and slow-growing due to cold temperatures, permafrost, and short growing seasons. Plant communities are dominated by tundra species, including mosses, lichens, sedges, grasses, dwarf shrubs, and flowering plants adapted to Arctic conditions. On Ellesmere Island, vegetation cover is sparse and patchy, reflecting polar desert conditions, while Coningham Bay and Admiralty Inlet support relatively higher tundra productivity in sheltered lowland areas. Terrestrial mammals present in or near the project areas include polar bears, Arctic wolves, muskoxen, Arctic foxes, caribou (regionally), and small mammals such as lemmings. These species rely on large, undisturbed landscapes for foraging, denning, migration, and predator-prey interactions. Polar bears are of particular importance and use coastal areas and sea ice extensively for travel and hunting. Marine mammals are a key biological component of the project areas. Beluga whales and narwhals are seasonally abundant in Coningham Bay and Admiralty Inlet, using these areas for moulting, feeding, and summer residency. Ringed seals, bearded seals, and harp seals are present and provide important prey for polar bears. Killer whales occur seasonally, particularly in Admiralty Inlet, influencing marine mammal distribution and behaviour. Bird species in the project areas include seabirds, shorebirds, and migratory waterfowl, many of which nest or stage during the summer months. Cliffs, coastal areas, wetlands, and tundra provide nesting and foraging habitat. Bird populations are seasonally sensitive to disturbance during breeding and chick-rearing periods. Fish and marine invertebrates form the foundation of marine food webs in the region. Species include Arctic cod, char, sculpins, and various invertebrates that support higher trophic levels such as marine mammals and seabirds. Fjords, embayments, and nearshore waters provide important feeding and nursery habitat. Freshwater ecosystems consist of small lakes, ponds, and streams that support limited but important aquatic life, including Arctic char and invertebrates adapted to cold, low-nutrient conditions. These systems are closely linked to seasonal meltwater and are sensitive to changes in hydrology and temperature. Ecological processes in the project areas are strongly influenced by sea ice dynamics, seasonal light cycles, and climate variability. Sea ice provides critical habitat and travel corridors for polar bears and seals, while also influencing marine productivity and species distribution. Several species present in the project areas are listed under federal or territorial conservation frameworks or are considered species of concern due to climate change and habitat sensitivity. The biological environment is also closely tied to Inuit subsistence harvesting, cultural practices, and traditional ecological knowledge. Due to the slow growth rates of Arctic species and limited reproductive capacity, ecosystem recovery from disturbance is slow, making the biological environment particularly vulnerable to cumulative effects. Maintaining landscape connectivity, minimizing disturbance, and respecting seasonal sensitivities are therefore critical considerations.

Description de l'environnement existant : Environnement socio-économique

The proposed project areas at Coningham Bay, Admiralty Inlet, and Ellesmere Island are located in remote regions of Nunavut with no permanent settlements at the project sites themselves. Nearby communities are small, predominantly Inuit, and rely on a mixed economy that combines wage employment, traditional harvesting, tourism, and government services. Access to these regions is primarily by air and seasonal marine transport. Inuit communities in the broader project region maintain a strong connection to the land and sea through subsistence harvesting, including hunting, fishing, and trapping. Marine mammals, terrestrial wildlife, fish, and birds contribute significantly to food security, cultural identity, and intergenerational knowledge transfer. Seasonal travel routes and harvesting areas are actively used and remain an essential part of daily life. Traditional land use in the region includes hunting camps, travel corridors, fishing areas, and culturally important sites. Inuit Qaujimajatuqangit (IQ) plays a critical role in understanding wildlife behaviour, environmental change, and safe travel conditions. These land uses and knowledge systems continue to guide decision-making at the community level and are integral to resource

management. Economic opportunities in the surrounding communities are limited and often seasonal. Employment is largely concentrated in public services, construction, transportation, resource management, and tourism. Tourism activities are typically small-scale and focused on wildlife viewing, cultural experiences, and guided travel, with growing interest in environmentally responsible and community-led tourism initiatives. Infrastructure in nearby communities includes airports, small harbours, community roads, fuel storage facilities, and limited accommodations. Outside community boundaries, infrastructure is minimal or absent. Emergency services, search and rescue, and health care capacity are limited by distance and weather, making coordination and communication important considerations. Cultural and heritage values are closely tied to the land and marine environment. Many areas surrounding the project sites hold historical significance related to long-standing Inuit use, travel, and settlement. Respect for culturally important sites and practices is a key socioeconomic consideration. The region has experienced increasing interest in Arctic tourism, research, and marine activity, driven in part by climate change and longer ice-free seasons. While this presents opportunities for economic development, it also raises concerns related to cumulative effects, community capacity, and protection of cultural and environmental values. Socioeconomic conditions are also influenced by climate change, which is affecting travel safety, wildlife availability, infrastructure stability, and cost of living. These changes underscore the importance of adaptive planning and meaningful engagement with communities. Community well-being, employment opportunities, training, and fair compensation are important socioeconomic values identified through community engagement and regional planning processes. Projects operating in the region are expected to contribute positively to local economies while respecting community priorities and decision-making authority.

Miscellaneous Project Information

n/a

Identification des répercussions et mesures d'atténuation proposées

The proposed GeoNest activities are designed to operate at a small scale, seasonally, and with a strong emphasis on community collaboration and environmental stewardship. While activities in remote Arctic environments have the potential to cause localized and short-term impacts, the project incorporates extensive mitigation measures intended to minimize environmental disturbance and provide positive socioeconomic outcomes for Inuit communities. Human presence has the potential to temporarily disturb wildlife and sensitive habitats if not properly managed. Mitigation measures include strict compliance with Nunavut wildlife regulations, maintaining minimum approach distances, operating only with experienced guides, and avoiding sensitive periods such as denning, breeding, or moulting where applicable. The camp design minimizes footprint by using elevated structures mounted on sleds, preventing ground compaction and vegetation damage. Camps can be relocated or removed entirely should environmental or community concerns arise. Ground disturbance is expected to be minimal due to the absence of permanent foundations or excavation. Mitigation measures include the use of above-ground, movable infrastructure, limited land-based activity zones, small group sizes, and full removal of all structures at the end of the operating season. This approach allows the landscape to remain largely unchanged and capable of natural recovery. Waste, Fuel, and Environmental Protection Improper waste or fuel handling could result in contamination of land or water. Mitigation measures include secure fuel storage with secondary containment, spill response planning, on-site greywater treatment, and removal of all solid waste and sewage from the site for approved disposal. These measures are intended to maintain the high existing quality of land, air, and water. Socioeconomic Benefits and Community Fund The project is designed to deliver direct and indirect benefits to nearby Inuit communities. GeoNest will establish a community fund dedicated to supporting community-identified projects that require financial assistance, such as cultural initiatives, youth programs, equipment purchases, or other locally prioritized needs. The fund will be developed and administered in collaboration with local HTAs/HTOs and community representatives to ensure transparency and relevance. Where possible, GeoNest will prioritize hiring local Inuit, including guides, cultural interpreters, logistics support, transportation providers, and other seasonal roles. This approach supports local employment, skills development, and income generation while ensuring that operations are informed by Inuit knowledge and experience. A core component of the project is educating guests about the importance of the Arctic landscape, wildlife, and biodiversity, as well as Inuit cultural values and stewardship practices. Guided activities and interpretation will emphasize respect for wildlife, the fragility of Arctic ecosystems, and the role Inuit communities play in caring for these environments. This educational focus is intended to foster greater awareness and long-term conservation-minded behaviour among visitors. The project's small scale, limited season, and low visitor numbers reduce the potential for cumulative effects. Ongoing communication with communities and regulatory bodies will allow for adaptive management, including

modification or relocation of camps if environmental conditions, wildlife patterns, or community priorities change. With the proposed mitigation measures in place, residual effects are expected to be minor, temporary, and reversible. The project is intended to leave no permanent footprint while contributing positively to community well-being, environmental awareness, and long-term stewardship of the land.

Répercussions cumulatives

Cumulative effects in the Canadian Arctic are influenced by a combination of climate change, increasing marine traffic, growing interest in Arctic tourism, scientific research activities, and ongoing community use of the land and marine environment. These pressures may interact over time to affect wildlife behaviour, habitat integrity, and community values. Climate change is the most significant cumulative influence in the project region. Observed and predicted trends include rising temperatures, reduced sea ice extent and duration, permafrost thaw, coastal erosion, and changes in wildlife distribution and migration patterns. These changes are occurring independently of the proposed project and contribute to increased sensitivity of Arctic ecosystems. Human activity in the project areas remains limited, but seasonal increases in vessel traffic, tourism, and research activity may contribute to cumulative disturbance, particularly for wildlife species sensitive to noise and human presence. Potential cumulative effects include increased wildlife avoidance of certain areas, disruption of traditional land use, and incremental pressure on sensitive habitats. The GeoNest project is designed to minimize its contribution to cumulative effects through small-scale, seasonal operations, limited guest numbers, and low-impact infrastructure. Camps are above ground, movable, and fully removable, ensuring no permanent footprint or long-term alteration of the landscape. Coordination and communication with local communities, HTAs/HTOs, and regulatory bodies will help ensure activities do not overlap with sensitive harvesting periods or areas. The use of Inuit knowledge will further reduce the potential for cumulative impacts by guiding timing, location, and operational decisions. In addition to minimizing impacts, the project is expected to contribute positive cumulative effects through local employment, capacity building, support for community-identified projects via the community fund, and increased awareness among visitors of Arctic conservation, biodiversity, and Inuit stewardship. Given the project's design, scale, and mitigation measures, its contribution to cumulative effects is expected to be negligible and not significant when considered in combination with other existing or reasonably foreseeable activities in the region.

Impacts

Identification des répercussions environnementales

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

Site du projet



Liste des géométries de projet

- | | | |
|---|----------|---|
| 1 | polygon | Geo Nest Land Use Area Connigham Bay |
| 2 | polyline | Geo Nest Land Use Area Admiralty Inlet |
| 3 | polyline | GeoNest lodge, option one Ellesmere Island |
| 4 | polyline | GeoNest lodge, option two Ellesmere Island |
| 5 | point | Location of GeoNest Lodge Connigham Bay |
| 6 | point | Location of GeoNest Lodge Admiralty Inlet |
| 7 | point | GeoNest lodge location, option 1 Ellesmere Island |
| 8 | point | GeoNest lodge location, option 2 Ellesmere Island |