

$\epsilon_b \Delta^c \dot{\bar{N}}_0 \sigma^b \wedge c_n d\epsilon^f b^g d n d^a l^a \sigma^b$

ᑕᓴᐅᑦᑐᑦ: Applicant name and contact information: Emily Keyes, Research Director, Know History Inc. emily@knowhistory.ca 613-700-8677 Secondary Contact Pacome Lloyd, Director, Department of Implementation, Nunavut Tunngavik Inc. plloyd@tunngavik.com 867-975-4900 Project Objectives: Nunavut Tunngavik Inc. (NTI) is developing cultural resource inventories for seven Migratory Bird Sanctuaries (MBSs) and National Wildlife Areas (NWAs). The goal of this project is to collect information about cultural resources and areas of importance to Inuit within the study areas. The inventories will be made available through a digital platform housed in each of the associated communities. All data collected and developed during this project will be owned by NTI and catalogued in a secure, password-protected database. Know History Inc. was hired to help with this work. A team will travel to Salliq (Coral Harbour) to consult with community members. Personnel will be visiting Ikkattuaq (Harry Gibbons) MBS and Qaqsauqtuuq (East Bay) MBS. Summary of activities and rationale: A small group (between 5-10 people) will travel to each MBS to interview knowledge holders on the land and document areas important to Inuit. The team will include at least one Know History staff member or sub-contractor, a videographer, a local guide, and a knowledge holder. Elders will be identified during community consultations for participation in the trip. Tools will include video recording equipment (cameras, microphones, tripods) and camping equipment (tents, sleeping pads/bags, camp stoves with naphtha fuel). Trips will vary in length between 1-4 days. Proposed date and duration of visit to each protected area: Ikkattuaq MBS: August 21st to September 10th, 2022 (1-4 days within this time period). Qaqsauqtuuq MBS: August 21st to September 10th, 2022 (1-4 days within this time period). Method of transportation: The project team plans to visit Qaqsauqtuuq (East Bay) MBS using ATVs. We anticipate the trip to take approximately 12 hours (return). The team may travel on the land while in the MBS by foot or ATV. Travel by ATV will not exceed more than 3 hours per person. For Ikkattuaq (Harry Gibbons) MBS, the team will hire either a boat or an aircraft to access the sanctuary. We estimate air travel may take 1 hour (return). Travel by boat may take 16 hours (return).

▷ ΔΑΠΝΩC: n/a

[illegible]

Operations Phase: from 2022-08-19 to 2022-09-07

$$\Lambda \subset \mathbb{N} \triangleleft \mathbb{N} \xrightarrow{\iota} \Sigma \triangleleft \mathbb{N}^{\mathbb{N}} \supset \mathbb{C}$$
[illegible]

ᑕᐃᓕᓕᓂᓐ ᐱᓂᓐᐃᐅᓂᓐ ᐃᓕᓕᓂᓐᐃᐅᓂᓐ

ᐃᓂᓂᓂᓐᐃᐅᓂᓐ ᐱᓂᓐᐃᐅᓂᓐᐃᐅᓂᓐ ᐱᓂᓂᓂᓐᐃᐅᓂᓐ:

Kivalliq

ᑕᐃᓕᓕᓂᓐ ᐱᓂᓐᐃᐅᓂᓐ ᐃᓕᓂᓐᐃᐅᓂᓐ

ᓂᓂᓂᓂᓐᐃᐅᓂᓐ ᐃᓂᓂᓂᓐᐃᐅᓂᓐᐃᐅᓂᓐ ᓂᓂᓂᓂᓐᐃᐅᓂᓐ ᐱᓂᓂᓂᓐᐃᐅᓂᓐ ᐃᓂᓂᓂᓐ ᐱᓂᓂᓂᓐᐃᐅᓂᓐ ᑕᐃᓂᓂᓐᐃᐅᓂᓐ ᐃᓂᓂᓂᓐ	ᓂᓂᓂᓂᓐᐃᐅᓂᓐ ᑕᐃᓂᓂᓐᐃᐅᓂᓐ ᐱᓂᓂᓂᓐᐃᐅᓂᓐ ᐃᓂᓂᓂᓐᐃᐅᓂᓐ	ᓂᓂᓂᓂᓐ ᓂᓂᓂᓂᓐ	ᐃᓂᓂᓂᓐ / ᐃᓂᓂᓂᓐᐃᐅᓂᓐ	ᓂᓂᓂᓂᓐ
Hamlets and Municipalities	A letter requesting support for the project was sent to the Hamlet of Coral Harbour. Bridget Pingwartok has forwarded the request to the SAO and ASAO.	Applied, Decision Pending		
ᐃᓂᓂᓂᓐᐃᐅᓂᓐ	MBS permit application was submitted to Alannah Kataluk Primeau on 2022-01-06. Decision pending.	Applied, Decision Pending		
Hunters and Trappers Associations/Organizations	A letter requesting support for the project was sent to the Aiviit Hunters and Trappers Association. No response has been received at this time.	Applied, Decision Pending		

Project transportation types

Transportation Type	ᓂᓂᓂᓂᓐ ᐃᓂᓂᓂᓐ	Length of Use
Air	For Ikkattuaq (Harry Gibbons) MBS, the team will hire either a boat or an aircraft to access the sanctuary. We estimate air travel may take 1 hour (return).	
Water	For Ikkattuaq (Harry Gibbons) MBS, the team will hire either a boat or an aircraft to access the sanctuary. Travel by boat may take 16 hours (return).	
Land	The project team plans to visit Qaqsauqtuuq (East Bay) MBS using ATVs. We anticipate the trip to take approximately 12	

hours (return). The team may travel on the land while in the MBS by foot or ATV. Travel by ATV will not exceed more than 3 hours per person.	
--	--

Project accomodation types

Temporary Camp

◀▷↳◀⁹⁶▷⁹⁶

Λ⁹δ^c Δ⁹β^cΓ⁹Δ⁹σ^cΔ⁹γ^c Δ^cε^cΓ^cΔ^cΠ^cΔ^c Δ^cδ^cΔ^c, Γ^cΔ^cΠ^cΔ^c, β^cε^cΔ^cγ^c, σ^cε^cΔ^c Δ^cγ^cβ^cΔ^c

ᐃᓕᑦᑲ ᐱᓄᑦ ᐋᑐᒪᐅᓂᐋᓖᑐᓖ ᓖᓄᐃᑦᑐᓂᓴ	ᓖᑦᑭᐅᑦᑦ	ᐋᓖᑦᓂᓖᑦ - >ᓖᑐᓂᓖᑦ	ᑭᐱᑦ ᐋᑐᒪᐅᓂᐋᓖᑦ
Video camera and accessories	4	5.24x7.0x6.7 inches	Video cameras and accessories (lenses, microphones, batteries, tripods) will be used to record interviews with knowledge holders.
Maps and accessories	10	24x36 inches	Maps and accessories (pencils, pens, stickers) will be used to record areas of importance with local knowledge holders.
Boat	3	n/a	Boats may be hired to transport the team to Ikkattuaq (Harry Gibbons) Migratory Bird Sanctuary. The boats will be rented from a local outfitter. The exact dimensions are not available at this time.
Tent	6	90L x 66W x 46H inches	Accommodation for overnight stays.
Aircraft	1	n/a	An airplane or helicopter may be hired to transport the team to Ikkattuaq (Harry Gibbons) Migratory Bird Sanctuary. The aircraft will be rented from a local outfitter. The exact dimensions are not available at this time.
ATV	7	59x34.5x40 inches	Transportation to/from and in Qaqsauqtuuq (East Bay) Migratory Bird Sanctuary.

በበፍጥረቱ ምሳሌ ለፍጥነቱ ምሳሌ ለፍጥነቱ ምሳሌ ለፍጥነቱ ምሳሌ

[illegible]

						(East Bay) Migratory Bird Sanctuary.
Gasoline	fuel	6	4	24	Liters	A case of Coleman Naphtha fuel will be brought for cooking.
Aviation fuel	fuel	0	0	0	Liters	For the trip to Ikkattuaq (Harry Gibbons) MBS, fuel will be supplied by the local outfitter who provides this transportation.
Gasoline	fuel	0	0	0	Liters	For the trip to Ikkattuaq (Harry Gibbons) MBS, gasoline for the boats will be supplied by the local outfitter who provides this transportation.

ΔL^q ΔJ^qCDJL^qJ^q

Δ ^c Δ ⁱ ΔJ ^q CDσΔ ^q J ^q	Δ ^b Δ ^q ΔΓ ^q C ^q b ^c C ^q σΔ ^q < ^c	Δ ^p ΔΓ ^q C ^q b ^c C ^q σΔ ^q < ^c
0	Bucket.	Water will be retrieved from a lake or moving river and boiled when needed.

$\triangleleft^b C d^c$
$$\Delta^b C d_c \sim \sigma \Delta^q \sigma^q$$

ለፍጥነት ማረጋገጫ ለፍጥነት ማረጋገጫ	ፍጥነት ማረጋገጫ ፍጥነት ማረጋገጫ	ፍጥነት ማረጋገጫ ፍጥነት ማረጋገጫ	ፍጥነት ማረጋገጫ ፍጥነት ማረጋገጫ	ፍጥነት ማረጋገጫ ፍጥነት ማረጋገጫ
Other	ፍጥነት ማረጋገጫ	128g/person/day of fresh feces	Buried in a waste pit away from water bodies	N/A
Other	ፍጥነት ማረጋገጫ	1,000 milliliters of urine/person/day	Buried in a waste pit away from water bodies	N/A
Other	ፍጥነት ማረጋገጫ	Daily waste for up to 10 participants	Any and all food waste will be collected and taken out of the area at the end of the trip	N/A

4^e 0 7 2 C 5^e 3^e 4^b 3⁶ C 2 7 L 2^c

Impacts on wildlife are expected to be minimal. However, some wildlife may be disturbed by the project team's arrival, movement, and camp activity in the sanctuary. The team will include an experienced local guide. They will be knowledgeable on how to avoid and prevent wildlife disturbance. The rest of the project team will follow their guidance. Additionally, the team will be instructed to avoid any interactions with wildlife, including all known nesting, breeding, moulting, calving, and denning areas. They will be trained to identify these areas and maintain a safe distance from them. The project team will not feed or attempt to attract wildlife.

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

ᐱᓕᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ

The Ikkattuaq MBS is within the drainage basin of Ikkattuap kuunga, and includes the delta, estuary, the adjacent tidal flats in the Bay of God's Mercy, and surrounding lowland areas. The grassy islands of the delta provide abundant nesting sites for a diversity of bird species, including waterfowl, shorebirds, and several other species of coastal and inland waterbirds. The sedge lowlands provide important feeding and molting habitats for geese. (<https://www.canada.ca/en/environment-climate-change/services/migratory-bird-sanctuaries/locations/harry-gibbons/management-plan.html>) The Qaqsauqtuuq MBS encompasses approximately 1,124 km² of terrestrial and marine areas on Southampton Island, Nunavut. The eastern boundary of the sanctuary is the junction of East Bay and Foxe Channel. The boundary extends approximately 60 km inland and includes the flat sedge meadows and raised beach ridges surrounding East Bay. (https://publications.gc.ca/collections/collection_2021/eccc/CW66-689-2020-eng.pdf)

ᐱᓕᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ

Ikkattuaq MBS: The sanctuary supports breeding habitats for nationally significant populations (defined as greater than 1%) of lesser snow goose (*Anser caerulescens caerulescens*) and Atlantic brant (*Branta bernicla hrota*). Over fifty species of birds have been recorded in or near the MBS, but the presence of more is very likely. Thirteen species at risk (listed under the federal Species at Risk Act or assessed by the COSEWIC) occur or have the potential to occur within the MBS. The Ikkattuaq MBS also serves as year-round and seasonal habitat for nineteen species of marine and terrestrial mammals. (<https://www.canada.ca/en/environment-climate-change/services/migratory-bird-sanctuaries/locations/harry-gibbons/management-plan.html>) Qaqsauqtuuq MBS: The sanctuary supports breeding habitats for nationally significant populations (defined as greater than 1%) of lesser snow goose (*Anser caerulescens caerulescens*), Atlantic brant (*Branta bernicla hrota*), and common eider (*Somateria mollissima borealis*). Over ninety species of birds have been recorded, including nine species at risk (listed under the federal Species at Risk Act or assessed by the COSEWIC). The Qaqsauqtuuq MBS also serves as year-round or seasonal habitat for thirteen mammal and fish species at risk. (https://publications.gc.ca/collections/collection_2021/eccc/CW66-689-2020-eng.pdf)

ᐱᓕᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ ᐱᓕᓐᓐ

Impacts from this project may include the disturbance of wildlife by the team's arrival, movement, and camp activity. Cumulative impacts may include the migration of wildlife from travel routes and campsite areas (identified in the project map). This may result in the requirement for harvesters to change their harvesting areas and practices. The project team will include a local guide, who will provide instruction on how best to avoid disturbing wildlife and habitat.

Impacts

$\omega \rightarrow \omega \Delta^{\epsilon_b} C D \sigma^{\epsilon_c} \Gamma^c$ $\Delta^c \cap \Gamma D C \dot{\sigma}^c \dot{\gamma}^c$ $\Delta^b \dot{\gamma}^b C D \Gamma L \dot{\gamma}^c$

PHYSICAL																	BIOLOGICAL										SOCIO-ECONOMIC				
Designated environmental areas																	Wildlife, including habitat and migration patterns										Archaeological and cultural historic sites				
Ground stability																	Birds, including habitat and migration patterns										Employment				
Permafrost																	Aquatic species, incl. habitat and migration/spawning										Community wellness				
Hydrology / Limnology																	Wildlife protected areas										Community infrastructure				
Water quality																											Human health				
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																															
-																															
Other																															
Camp																															
-																															

$$(P = \langle b \rangle \Delta \langle p \rangle \langle \lambda \rangle \langle a \rangle^b)^c, N = \langle b \rangle \langle p \rangle \langle \lambda \rangle \langle \Delta \rangle \langle a \rangle^b)^c \langle \Delta \rangle \langle p \rangle \langle \lambda \rangle^b \langle \Delta \rangle \langle a \rangle^b)^c, M = \langle b \rangle \langle p \rangle \langle \lambda \rangle \langle \Delta \rangle \langle a \rangle^b)^c \langle \Delta \rangle \langle p \rangle \langle \lambda \rangle^b \langle \Delta \rangle \langle a \rangle^b)^c, U = \langle b \rangle \langle \Delta \rangle \langle \lambda \rangle \langle a \rangle^b)^c \langle \Delta \rangle \langle p \rangle \langle \lambda \rangle^b \langle \Delta \rangle \langle a \rangle^b)^c$$

1 point	Approximate camp site location at Ikkattuaq (Harry Gibbons) MBS
2 point	Approximate camp site location at Qaqsauqtuuq (East Bay) MBS. Site is near ECCC Mainland Camp.