



NIRB Application for Screening #125594

Lake Hazen Barrel Shed Remediation and Replacement

Application Type: New

Project Type: Remediation

Application Date: 3/8/2021 9:05:55 AM

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

Proposed Authorization: from 0001-01-01 to 0001-01-01

Project Proponent: Jenn Lukacic
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DETAILS

Non-technical project proposal description

English: see attached document

French: NA

Inuktitut: see attached document.

Inuinnaqtun: NA

Personnel

Personnel on site: 4

Days on site: 50

Total Person days: 200

Operations Phase: from 2021-06-01 to 2022-08-10

Operations Phase: from 2021-06-01 to 2022-08-10

Closure Phase: from 2022-07-10 to 2022-08-10

Post-Closure Phase: from to

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Lake Hazen Camp - Quttinirpaaq National Park	Site Cleanup/Remediation	Crown	The Barrel shed and the replacement shed are within a Zone 3 area within the existing footprint of the camp. Lake Hazen Camp was constructed by the Defence Research Board in the 50's. The Site was sampled in the late 90's and remediation of contaminated soils was completed on site in the early 2000's. The existing landfarm was constructed for this purpose and will be used to remediate the naphtha contaminated soils from the barrel shed.	The barrel shed has been designated as a cultural resource, by Parks Canada. A Cultural Resource Impact Assessment will determine how best to document the resource prior to its removal. It is located beside another cultural resource building: an Attwell Shelter installed by the Defence Research Board. Removal of the barrel shed will not effect the Attwell Shelter. There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq national Park. The closest community of Grise Fiord is over 600km away.
Lake Hazen Camp - Quttinirpaaq National Park	Landfarm	Crown	The Barrel Shed was constructed by the Defense Research Board out of old fuel drums. Soil samples have been taken and shown a small and localized level of naphtha contamination. The contaminated soils will be taken to the on site landfarm for remediation. We will work with the Royal Military College to determine the appropriate buffer outside of the identified contaminated area to ensure the contaminated soils are captured and	There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq national Park. The closest community of Grise Fiord is over 600km away.

			placed in the landfarm as well as appropriate remediation measures		
Lake Hazen Camp - Quttinirpaaq National Park	Camp	Crown	Lake Hazen Camp was constructed by the Defence Research Board in the 50's. Parks Canada has used this area to support park operations and research since the 80's. I consists of a kitchen, sleeping quarters, office, toilets, outbuildings and a laboratory. These facilities will be used by the staff staying on site.	There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq national Park. The closest community of Grise Fiord is over 600km away.
Lake Hazen Camp - Quttinirpaaq National Park	Other	Crown	The Barrel shed has been used to store equipment to support camp and park operations. Constructing a new shed of approximate 4.5x4m in size will replace the old barrel shed and used for the same purpose.	There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq National Park. The closest community of Grise Fiord is over 600km away.

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Grise Fiord	Liza Ningiuk	Quttinirpaaq Joint Parks Management Committee	2017-02-14
Resolute Bay	Tabitha Mullin	Quttinirpaaq Joint Parks Management Committee	2017-02-14
Pangnirtung	David Kooneeliusie	Quttinirpaaq Joint Parks Management Committee	2017-02-14

Authorizations

Indicate the areas in which the project is located:

North Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Parks Canada	Conformity Determination and Environmental Impact Assessment	Active	2021-03-02	
Parks Canada	Cultural Resource Impact Assessment	Active		
Parks Canada	Aircraft Landing Permit	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	All access to Quttinirpaaq is by air. Staff, materials, equipment and waste are transported by Twin Otter, DC3 or Helicopter	
Land	Materials and equipment flying in and out of the park will be shuttled from the site to the airstrip by snowmobile and qamutik, UTV or ATV and trailer.	

Project accomodation types

Permanent Camp

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
grinder	1	12	cut up large peices of equipment for removal
UTV	1	8ftx4ft	move materials between airstrip and camp
ATV and Trailer	1	8ftx4ft	Move materials between airstrip and camp
Snowmobile and qamutik	1	2ftx16ft	move materials around camp
chain hoist	1	2x2ft	lift barrels from the shed
gantry crane	1	10x10ft	unstack barrels from the shed
hand and power tools	20	12	construct new shed

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Propane	fuel	8	100	800	Lbs	camp kitchen appliances
Diesel	fuel	6	205	1230	Liters	tent heaters and camp incinerator
Gasoline	fuel	4	205	820	Liters	fuel for atv, utv, snowmobile

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Potable water will be supplied by the existing system in camp. Usage is approx.20L per person per day. 50 person days in camp per year is 1000L. This is well within the capacity of the system.	The source is Lake Hazen.

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Camp	Non-Combustible wastes	150L/yr	Packaged for air transport out of the park and disposed of in Resolute Landfill.	Remove from Park
Site Cleanup/Remediation	Non-Combustible wastes	100 empty metal drums, 2500lbs of metal waste	empty barrels and pieces of the push arm and bulldozer blade will be flown out for cleaning, crushing and shipped south for recycling.	drums will be cleaned and crushed in Resolute
Landfarm	Overburden (organic soil, waste material, tailings)	1000L	contaminated soils will be removed by hand and placed in the existing landfarm.	biological agents and rototilling are used to assist in the breakdown of hydrocarbons
Camp	Sewage (human waste)	80L / yr	on-site diesel fired incineration.	Incineration

Environmental Impacts:

See The attached Project Description

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

Approximately 100 old fuel barrels will be removed from the park. Contaminated soils from the structure will be remediated in the existing landfarm on site. Several large old pieces of equipment ie) push bar, engine and bulldozer blade will be removed from the park.

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 of Existing Environment: Physical Environment

Lake Hazen Camp consists of the barrel shed, laboratory, fuel shed, 2 sleepers, office and toilets. The Barrel shed and the replacement shed are within a Zone 3 area within the existing footprint of the camp. Lake Hazen Camp was constructed by the Defense Research Board in the 50's and has been used by Parks Canada and researchers since the 80's.

Description of Existing Environment: Biological Environment

The Barrel Shed is approximately 80m from the shore of Lake Hazen. A small seasonal stream also runs behind it <50m away. Lake Hazen is an important habitat for Arctic char. Peary Caribou and Polar Bear are present in Quttinirpaaq National Park. No Known denning or calving grounds are in the immediate area of the camp. The Lake Hazen thermal oasis is used by many bird and waterfowl species to nest and raise young. Many bird species use the immediate surrounding area however none are known to nest in camp. On occasion some adults with chicks wonder thru camp. Muskox are common in the area.

Description of Existing Environment: Socio-economic Environment

There are a number of archeological sites and areas of importance to Inuit along the shores of Lake Hazen but none in the zone 3 area of camp.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

The removal of the barrel shed is an impact because it is a cultural resource. Mitigations will be determined thru a Cultural Resource Impact Assessment by Parks Canada to identify how best to document the heritage value prior to its removal. The Lake Hazen Camp was established in the 50's and has been used ever since. The camp area is primarily sand and has some compaction around buildings and walkways. One trail from the airstrip to the camp and one trail from camp to the fuel cache, landfarm and incinerator area on the other end of the airstrip are used to minimize disturbance and compaction in additional areas. Aircraft must fly at a minimum height of 2000ft when in the park to avoid wildlife disturbance. Dust and noise from the use of equipment to shuttle materials will be kept to a minimum by taking the fewest trips possible and staying on the existing trails and airstrip. Low impact / Leave no Trace principles are used in camp and all staff contactors and visitors are provided with a park orientation that reviews low impact camping practices, correct behaviors to avoid and manage wildlife encounters and how to respect archeological sites.

Cumulative Effects

Impacts

Identification of Environmental Impacts

	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																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation																									
Camp		M	-	-	-	-	-	-	-	-	-	-	-	N		-	M	M	-	-		-	-	-	-
Landfarm		-	-	-	-	-	-	-	-	-	P	-	-	-		-	-	-	-		-	-	-	-	-
Site Cleanup/Remediation		P	-	-	-	-	-	-	-	-	P	-	-	-		-	U	U	-	-		-	P	-	P
Decommissioning																									
Landfarm		-	-	-	-	-	-	-	-	-	P	-	-	-		-	-	-	-		-	-	-	-	-
Site Cleanup/Remediation		P	-	-	-	-	-	-	-	-	P	-	-	-		-	U	U	-	-		-	P	-	P

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

- | | | |
|---|-------|--|
| 1 | point | Lake Hazen Camp - Quttinirpaaq National Park |
|---|-------|--|