



NIRB Application for Screening #125728

CORAL HARBOUR REMEDIATION PROJECT

Application Type: New

Project Type: Site Cleanup/Remediation

Application Date: 7/7/2022 9:34:40 AM

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

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

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DETAILS

Non-technical project proposal description

English: CORAL HARBOUR SITE REMEDIATION PROJECT NON-TECHNICAL EXECUTIVE SUMMARY

1. BACKGROUND The Government of Canada has implemented the Federal Contaminated Sites Action Plan (FCSAP) to clean up federally owned contaminated sites which pose risks to human health and the environment. Coral Harbour Site, Nunavut, is one of those sites. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) is the custodian of several such sites and sometimes the contamination of some of those sites could be linked to the past years of military operations by CIRNAC or Crown. Past legal opinions suggest that the Crown might have caused the bulk of the contamination on Coral Harbour Site. Consequently, CIRNAC applied for, and received funding approval under FSCAP, to clean up the Coral Harbour Site. Coral Harbour Site consists of areas around the Hamlet of Coral Harbour used between the 1940s to the mid 1950s as training areas and base for Northern operations by the US and Canadian Militaries. These areas were used as staging areas support operations (including the construction of DEW Line Sites) across Northern Canada. In the 1970s, military operations ceased in these areas, the airfield became the municipal airport and the rest of the site was abandoned. Coral Harbour Site is about 10 km northwest of the Hamlet of Coral Harbour. Past legal studies indicated that, though the Land regimes around the Coral Harbour Site belong to a number of organizations, a large amount of contamination on the site could be traced to Crown's military operations on the site between 1940s to 1970s. The areas of environmental concerns identified at the site are: area of Tar Barrels, area of Full Barrels, a Barrel Cache, a Former Amy Base, area of the debris of the Former Airport and the Former Farm Tank area. These areas contain non-hazardous wastes (barrels, structures and surface debris); hazardous wastes (batteries, asbestos, lead paint, gas cylinders and contents of barrels); contaminated soils (soil exceeding human health and ecological risk assessment targets and petroleum hydrocarbon stained surficial soils); and Waste Disposal Areas (containing buried debris). Works started on the site with site investigation conducted in 2020 followed by a supplemental site assessment in 2021. Based on the reports of the site assessment and the supplemental site assessment, an human health and ecological risk assessment report was developed together with the remedial action plan for the clean up of the site. Also developed was the project proposal report to identify the effects of the proposed remediation plan on the Coral Harbour site and its environs. The site remediation field work is planned to commence in October 2022 and will be completed about September/October 2024.

2. SITE LOCATION/ACCESS Coral Harbour site is located at approximate latitude, 64 11' 30.257" N; and Longitude, 83 21' 0" W and it is at about 10 km northwest of Coral Harbour (the nearest Nunavut community to the site). The site is accessible by ATV, snowmobile, airplanes, helicopter, and CAT train. Heavy equipment and materials can be moved to and out of the site by sealift or a combination of sealift and CAT train while personnel movement and supplies/resupplies can be done by helicopter, airplanes, or ATV. The proximity of the site to the Hamlet of Coral Harbour is an asset with regards to accessing the site.

3. PROJECT ACTIVITIES & SCHEDULE Environmental site assessment (ESA) activities were carried out to identify and estimate the quantities and extents of contaminants of concerns on Coral Harbour site. Reports of these assessment studies were produced by Earth Tech (2008); WESA (2012); and by Stantec (2020 and 2021). Based on these site assessment studies, a site clean plan was developed for the cleanup of Coral Harbour site. Following the development of the draft of the plan, a community consultation, in the form of public meeting, was held in Coral Harbour on March 2, 2021. The meeting was well attended by members of the communities and feedbacks from the meetings were considered when the plan was finalized. The cleanup of the Coral Harbour site is planned for the years 2022 to 2024. Summary of tasks to be completed at the site include: mobilization to site; improvement of site access routes, site internal roads and airstrips; Camp set-up and operation; and the actual remediation of the site. Full details of works to be completed are contained in the remedial action plan (RAP) previously submitted to the regulatory bodies via Nunavut Planning Commission (NPC) with a copy attached to this application. Final demobilization from the site will take place by September/October 2024. Prior to the start of the remedial works, authorizations will be obtained from the following regulatory bodies: Nunavut Planning Commission NPC (Conformity Check – already granted); Nunavut Impact Review Board (Screening); CIRNAC Land Administration for the Land Use Permit and Quarrying Permits; and Nunavut Water Board (NWB) for Water Use Licence. Following the completion of site remediation at Coral Harbour site, CIRNAC will embark on up to 25 years of long term monitoring of the site to ensure the stability of the non-hazardous landfill facility that will be built on the site. Any problems discovered during the post-remediation monitoring shall be fixed. This monitoring procedure is in accordance to CIRNAC's Abandoned Military Sites Remediation Protocol (AMSRP).

4. SOCIAL IMPACT OF THE PROJECT As much as possible, the project has adopted and will continue to adopt solutions tailored to the northern environment and its inhabitants, by using local knowledge and including the unique needs of northerners and their environments in the remediation work plan. Public community consultation meetings will continue to be held in Coral Harbour as the site cleanup activities progress to discuss employment and sub-contracting opportunities and the progress of site works from time to time. The meetings will invite community members, members of the Hamlet Council and local Inuit organizations. The contracting/procurement procedure that will be adopted for this

Inuktitut:

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
Coral Harbour Site	Site Cleanup/Remediation	Crown	Coral Harbour Site consists of areas around the Hamlet of Coral Harbour operated between the 1940s to the mid 1950s as training areas and base (staging area) for operations (including the DEW Line Sites) by the US and Canadian Militaries. In the 1970s, the airfield became the municipal airport and the rest of the site was abandoned. Site contains non-hazardous and hazardous wastes, waste disposal areas and contaminated soils	3 archaeological sites were identified on Coral . 2 of the sites are pre-contact stone feature that may represent a cache or collapsed inuksuk, and a historic tent ring. The third site not within proximity of Project components and consists of multiple stone features, both pre-contact and historic. During remediation the 3 sites will be avoided. Fencing may be used to ensure avoidance.	Coral Harbour Site is about 10 km northwest of the hamlet of Coral Harbour, Nunavut,

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Coral Harbour	Hamlet and Community Members	Community of Coral Harbour	2022-03-02

Authorizations

Indicate the areas in which the project is located:

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Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Aboriginal Affairs and Northern Development Canada	Land Use Permit (LUP)	Not Yet Applied		
Nunavut Water Board	Water Use License (WUL))	Not Yet Applied		
Aboriginal Affairs and Northern Development Canada	Quarrying Permits (QPs)	Not Yet Applied		
Government of Nunavut, Community Government & Services	Land Use Permit / Authorization certificate	Not Yet Applied		
Transport Canada	Authorization Letter for Lot 541 and 542 (previously lot 8)	Not Yet Applied		
Fisheries and Oceans Canada	Authorization Letter for Lot 1001 which is under the administration and control of DFO	Not Yet Applied		
Other	Authorization Letter from the Municipality of Coral Harbour for Lot 384 which is a municipal land, occupied by DFO without interest	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air		

Project accomodation types

Temporary Camp

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Backhole	2	> minimum weight 10 tons	excavation, demolition, moving materials, grading and regrading
Excavators	2	> minimum weight 10 tons	excavation, bigger demolition, lifting heavy objects, grading and regrading
Bulldozers	2	> minimum weight 10 tons	shallow excavation and ditching; short-range movement of material; spreading soil dumped from trucks; rough grading; removing trees, stumps, and boulders; and cleaning and leveling around loading equipment
Grader	2	> minimum weight 10 tons	construction and maintenance of dirt and gravel to create flat surfaces
Wheel Loaders	2	> minimum weight 10 tons	For lifting basically anything such as debris, gravel, soil, dirt, pallets.
Rock trucks	2	> minimum weight 10 tons	To carry and haul rocks or borrowed materials from borrow material locations to the points of using the materials
All Terrain Vehicles (ATVs).	4	unknown	For transportation of people around the site and from the site to the Hamlet of Coral Harbour
Pick-up trucks	2	unknown	Transportation of people and equipment around the site and to the Hamlet of Coral Harbour

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	10	10000	100000	Liters	run equipment, vehicles and camp heating
Gasoline	fuel	10	205	2050	Liters	run vehicles and ATVS
None	hazardous	0	0	0	Liters	N/A

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
13	Pumping, on-site treatment and trucking to camp. Details of treatment and polishing unit to be provided by	On-site freshwater source to be determined by the successful remediation contractor

	successful contractor, after contract award.	
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Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Site Cleanup/Remediation	Combustible wastes	To be determined (TBD)	On-site incineration in an enclosed container	None
Site Cleanup/Remediation	Greywater	5000 L/day	Disposed of with sewage	None
Site Cleanup/Remediation	Hazardous waste	TBD	Shipped off-site to a licensed southern facility	None
Site Cleanup/Remediation	Non-Combustible wastes	TBD	Shipped off-site for disposal	None
Site Cleanup/Remediation	Overburden (organic soil, waste material, tailings)	TBD	Shipped off-site for disposal	None
Site Cleanup/Remediation	Sewage (human waste)	2000 L/day	On-site Lagoon or other approach that may be suggested by the contractor	None

Environmental Impacts:

The predicted environmental impacts of this project and the proposed mitigations are contained in the attached Project Proposal Report (PPR). After the application of the mitigation measures proposed in the PPR, the potential residual effects of the project are anticipated: to be short-term in nature with the exception of potential effects to groundwater associated with the NHW facility; to occur occasionally throughout the Project; and to be limited to areas directly disturbed by the Project (footprint) and areas within 500 m of the footprint because the Project will use areas of existing disturbance as much as possible to mitigate potential residual effects. The effects to all value components (VCs) are evaluated as low magnitude and will not threaten the sustainability of VCs.

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

- <10 m3 Batteries - Removal of batteries from vehicles and equipment, if present, and off-site disposal at a registered hazardous waste facility. ~134,100 L Liquid - To be sampled and incinerated on-site if they meet incineration criteria. Residual ashes disposed of in the recommended on-site NWH facility following leachate analysis. Barrel contents unfit for incineration will be amalgamated and shipped off-site to a licensed facility for treatment and/or disposal. For incinerated remains disposed of in NHW, the NHW will undergo long term monitoring (LTM) post remediation- >5 m3 Asbestos - Abate, double bag and dispose of in the recommended on-site NHW facility. The NHW will undergo long term monitoring (LTM) post remediation. >100 m2 Lead Amended Paint - Partial abatement on-site of poorly adhered paint and off-site disposal of removed paint at hazardous waste facility. Following partial abatement, materials with remaining well adhered paint may be treated with Lead Defender® and disposed of in the on-site NHW facility. The NHW will undergo long term monitoring (LTM) post remediation. -16000L Aqueous Liquid - To be sampled and incinerated on-site if they meet incineration criteria. Residual ashes disposed of in the recommended on-site NWH facility following leachate analysis. Barrel contents unfit for incineration will be amalgamated and shipped off-site to a licensed facility for treatment and/or disposal. For incinerated remains disposed of in NHW, the NHW will undergo long term monitoring (LTM) post remediation- unknown volume (m3) of Hazardous Buried Debris - Classification of the WDAs in accordance with the AMSRP to designate each as a Class A, B or C and determine the appropriate remedial action prior to the remedial program. Dispose of as HW if indicated by results. For wastes disposed offsite, no further treatment required. For wastes disposed in the NHW, the facility will undergo LTM post remediation. - 60 m3 (vol. after crushing) - The non-hazardous waste (empty barrels) will be emptied, cleaned, crushed, and disposed of in a non-hazardous waste (NHW) facility constructed at the Site. The NHW will undergo long term monitoring (LTM) post remediation- 6815 m3 (in waste disposal areas (WDAs)) - The WDAs will be classified in accordance with the Abandoned Military Site Remediation Protocol (AMSRP) (INAC, 2008) to designate each as a Class A, B or C and determine the appropriate remedial action prior to the remedial program. Any excavated hazardous materials shall be segregated and disposed off-site, while excavated NHW will be disposed of in the on-site NHW facility. The NHW and any WDA left in place will undergo long term monitoring (LTM) post remediation- 80 m3 (may contain some combustible wood) - The Infrastructure (Tank Farm and Wooden Shed) will be dismantled, incinerated or compacted, and non-combustibles will be disposed of in the on-site NWH facility. Tank farm will require an assessment prior to remedial program to determine if/what contents are present and if the paint on tanks is amended paint. The NHW will undergo long term monitoring (LTM) post remediation. - 3430 m3 The surface solid debris will be collected, segregated, shredded, compacted and disposed of in the on-site NWH facility. Combustibles such as inert wooden materials will be segregated and incinerated on-site. The NHW will undergo long term monitoring (LTM) post remediation. - 1950 m3 Soil (PHC) - surface staining - Areas of surficial staining to be excavated to an assumed depth of 1 m and disposed of in the on-site NHW facility. Excavated areas to be filled with borrow material and regraded to match surrounding landscape.

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

Please refer to the attached Phase III ESA, RAP and PPR

Description of Existing Environment: Biological Environment

Please refer to the attached Phase III ESA, RAP and PPR

Description of Existing Environment: Socio-economic Environment

Please refer to the attached Phase III ESA, RAP and PPR

Miscellaneous Project Information

Additional Information on the Potential Camp: Based on the limited availability of accommodations in the Hamlet of Coral Harbour and the COVID-19 pandemic, a camp is anticipated to be required to facilitate remediation. The camp is anticipated to have a capacity for up to 18 on-site workers and associated camp staff. Resident workers from Coral Harbour would not require camp accommodations. Workers from outside of Coral Harbour would be anticipated to work in rotations of up to three weeks, requiring air transport from one or more designated pick up locations, to be determined by the contractor. The camp will be constructed with suitable infrastructure to meet Nunavut guidelines and community land use zoning restrictions for this type of temporary camp as applicable, including the WSCC's Camp Set Up and Management (WSCC, 2017a), and will be constructed and prepared for weather and/or emergency situations. The camp will reduce contact between the workers and the local community. Specific locations for the camp have not yet been identified but will be assessed and discussed with the Hamlet during the pre-remedial activities. Facilities that may be required to operate the temporary camp include the following: • Sleeping quarters • Offices • Kitchen and dining areas • Bathrooms and showers • Laundry facilities • First aid facilities • Mechanic and equipment area that would also have a petroleum and lubricant containment area • Geotechnical laboratory • Diesel-powered generators • Emergency shelter • Quarantine building (for on-site workers who exhibit symptoms of COVID-19). Potable water will be obtained from the municipal supply. Sewage, greywater and domestic wastes will be collected and disposed to municipal solid waste and wastewater facilities in the Hamlet. All other wastes will be disposed of in accordance with the methods in the RAP. Additional details on the potential camp are contained in the Project Proposal Report (PPR)

Identification of Impacts and Proposed Mitigation Measures

The predicted environmental impacts of this project and the proposed mitigations are contained in the attached Project Proposal Report (PPR). After the application of the mitigation measures proposed in the PPR, the potential residual effects of the project are anticipated: to be short-term in nature with the exception of potential effects to groundwater associated with the NHW facility; to occur occasionally throughout the Project; and to be limited to areas directly disturbed by the Project (footprint) and areas within 500 m of the footprint because the Project will use areas of existing disturbance as much as possible to mitigate potential residual effects. The effects to all value components (VCs) are evaluated as low magnitude and will not threaten the sustainability of VCs.

Cumulative Effects

Reference to the attached PPR

Impacts

Identification of Environmental Impacts

		P H Y S I C A L										B I O L O G I C A L										S O C I O - E C O N O M I C									
		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										Vegetation										Human health									
		Climate conditions										Eskers and other unique or fragile landscapes																			
		Surface and bedrock geology										Wildlife, including habitat and migration patterns																			
		Sediment and soil quality										Wildlife, including habitat and migration patterns																			
		Tidal processes and bathymetry										Wildlife, including habitat and migration patterns																			
		Air quality										Wildlife, including habitat and migration patterns																			
		Noise levels										Wildlife, including habitat and migration patterns																			
		Vegetation										Wildlife, including habitat and migration patterns																			
		Wildlife, including habitat and migration patterns										Wildlife, including habitat and migration patterns																			
		Aquatic species, incl. habitat and migration/spawning										Wildlife, including habitat and migration patterns																			
		Wildlife protected areas										Wildlife, including habitat and migration patterns																			
		SOCIO - ECONOMIC										Archaeological and cultural historic sites																			
		Employment										Wildlife, including habitat and migration patterns																			
		Community wellness										Wildlife, including habitat and migration patterns																			
		Community infrastructure										Wildlife, including habitat and migration patterns																			
		Human health										Wildlife, including habitat and migration patterns																			
Construction																															
Site Cleanup/Remediation		-	P	P	-	P	P	P	P	M	-	M	-		P	P	P	P	-		M	P	P	P	P						
Operation																															
Site Cleanup/Remediation		-	P	P	-	P	P	P	P	P	-	P	-		P	P	P	P	-		P	P	P	P	P						
Decommissioning																															
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-						

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

Project Location



List of Project Geometries

1	point	Coral Harbour Site
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