NIRB Application for Screening #125731

DRDC - Northern Watch Technology Demonstration Project (NWTD)

Application Type:	New
Project Type:	Scientific Research
Application Date:	7/19/2022 12:23:33 PM
Period of operation:	from 0001-01-01 to 0001-01-01
Proposed Authorization:	from 0001-01-01 to 0001-01-01
Project Proponent:	Sarah Rahmer Defence Construction Canada 180 Kent St Ottawa ON K1P 0B6 Canada Phone Number:: 343-550-8984, Fax Number::

DETAILS

Non-technical project proposal description

English: See attached project documents

French: See attached project documents

Inuktitut: See attached project documents

Inuinnaqtun: See attached project documents

Personnel

Personnel on site: 7
Days on site: 4
Total Person days: 28
Operations Phase: from 2022-08-01 to 2022-09-30

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
DUSN node	Researching	Marine	N/A	N/A	Lancaster Sound/Baffin Bay
AAR1	Researching	Marine	N/A	N/A	Arctic Bay, NU
AAR2	Researching	Marine	N/A	N/A	Pond Inlet, NU
AAR3	Researching	Marine	N/A	N/A	Qikiqtarquaq, NU
GBY 100-km waypoint	Researching	Marine	N/A	N/A	Baffin Bay/Davis Strait
DUSN1	Researching	Marine	N/A	N/A	Pond Inlet, NU
DUSN2	Researching	Marine	N/A	N/A	Pond Inlet, NU

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Qikiqtarjuaq	QIA	QIA	2022-05-12

Authorizations

Indicate the areas in which the project is located:

Transboundary
North Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	8WLC-NWT2223 – Approval for the Use of Waters and Deposit of Waste Without a Licence	Active	2022-07-15	2023-07-14
Nunavut Research Institute	Scientific Research Licence Application	Applied, Decision Pending		
Nunavut Tunngavik Inc	Request for information sent	Applied, Decision Pending		
Government of Nunavut, Department of Environment	Request for information sent	Applied, Decision Pending		
Qikiqtani Inuit Association	Request for information sent	Applied, Decision Pending		
Other	Crown Indigenous Relations and Northern Affairs Canada (CIRNAC) Request for information sent	Applied, Decision Pending		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	Royal Canadian Navy (RCN): •Her Majesty's Canadian Ship (HMCS) HARRY DEWOLF (HDW) (Harry Dewolf Class) •HMCS MARGARET BROOKE (MAR) (Harry Dewolf Class) •HMCS GOOSE BAY (GBY) (Kingston Class)	

Project accomodation types

Temporary Camp

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Sea Robotics USV-2600 (USV i.e. Uncrewed Surface Vessel)	1	1000 lbs	Collection of high-frequency (450 kHz) sonar data to evaluate the performance characteristics of this sonar in the arctic ocean where the presence of freshwater layers affect the sound velocity profile.
RF Float	1	70 lbs	For DUSN communications
DUSN	1	450 lbs	To record information
AUV	1	22.75”L x 3.89”H x 1.14”D	- IVER-3 (Klein UUV3500)- IxBlue C3 Inertial navigation system
CTD sensor	1	2.8”L x 8.0”H	- Conductivity / Temperature/ depth sensor
AIS TX	1	6.5” (W) × 4.3” (H) × 3.6” (D)	Portable automatic identification system transmitter
Slocum glider	1	1.79m L x 1.01m W x 0.49m H	Long range remote water observation
Acoustic recorders	3	74mm W x 101mm H x 28mm D	Biodiversity assessment
HMCS HDW (Navy ship)	1	105m X 19m	Transport
HMCS MAR (Navy Ship)	1	103m x 19m	Transport
HMCS GBY (Navy Ship)	1	55.3m x 11.3m	55.3m x 11.3m

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Information is not available						

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0		

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Information is not available				

Environmental Impacts:

There will be written navigational warnings (NAVWARNs) and notices to mariners (NOTMARs) serve to warn vessel operators about training activity timing and location. These notices contain important information about activities which should remain in effect for the duration of the exercise. However, it remains uncertain how effective these systems are in warning Indigenous communities and those who may be undertaking traditional activities. There are no expected permanent changes to the current condition or use of land (including coastal and marine area), air, water and resources. The exercises are temporary and will only take place for a few days at each location. There are no expected significant adverse effects on air, land or water due to Op NA-NK 2022 after proposed mitigation measures (in the additional information and project documents) are in place.

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 of Existing Environment: Physical Environment

Description of Existing Environment: Biological Environment

Description of Existing Environment: Socio-economic Environment

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

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

Project Location

List of Project Geometries

1	point	DUSN node
2	point	USV 2600 (North-West edge of box)
3	point	USV 2600 (South-East edge of box)
4	point	AAR1
5	point	AAR2
6	point	AAR3
7	point	DUSN1
8	point	DUSN2
9	point	GBY 100-km waypoint
10	point	BRS trial