NIRB Application for Screening #125741
Iqaluit Community Fishers - DFO OPP

Application Type:	New
Project Type:	Scientific Research
Application Date:	10/17/2022 3:36:05 PM
Period of operation:	from 0001-01-01 to 0001-01-01
Proposed Authorization:	from 0001-01-01 to 0001-01-01
Project Proponent:	Lucianne May Marshall Ocean Networks Canada 2472 Arbutus rd Victoria BC V8N 1V8 Canada Phone Number:: 7789224043, Fax Number::

DETAILS

Non-technical project proposal description

English: See document attachment

French: See document attachment

Inuktitut: See document attachment

Inuinnaqtun: NA

Personnel

Personnel on site: 3
Days on site: 25
Total Person days: 75
Operations Phase: from 2022-11-26 to 2023-03-26

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Designated stations within Frobisher Bay and Ward Inlet will be visited for sampling. The primary focus is in the head of Frobisher Inlet near Iqaluit town, See project description/map. We can provide specific coordinates too if desired	Marine Based Activities	Marine	Some sites overlap with historical and present DFO and Nunavut government sampling sites, others are areas of interest identified by community members	NA - data collection only occurs in the water column and does not disturb sea floor or extract physical samples	Between 3.5 - 80 km from Iqaluit Township

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Iqaluit	Alex Flaherty	Polar Outfitting	2020-03-17
Iqaluit	Harley Veevee	Polar Outfitting	2020-03-16
Iqaluit	Noah Alookie	HTO	2020-03-16
Iqaluit	Imoona Karpik	Polar Outfitting	2020-03-16
Iqaluit	Kevin Kullualik	Polar Outfitting	2021-01-01
Iqaluit	Kenny Merkosak	Polar Outfitting	2021-01-01

Authorizations

Indicate the areas in which the project is located:

South Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Fisheries and Oceans Canada	Funded project through DFO - no licence required due to nature of data collection being optical.	Active	2022-07-25	2023-03-31
Hunters and Trappers Associations/Organizations	HTA were approached with the project details and they signed approval for the data collection in the area.	Active	2022-05-26	2023-03-31
Nunavut Research Institute	Nunavut Research Institute are awaiting the outcome of the application we made to the Nunavut Planning Commission, which was then forwarded for NIRB approval.	Applied, Decision Pending		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	Local community members use own vessels/snow machines and are compensated for use	

Project accomodation types

Community

Other,

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Multi-parameter Sonde	1	100 cm H, 20 cm W	A multi-parameter oceanographic instrument ("sonde") is equipped with sensors that are considered the foundational data to study oceanography. The sonde measures temperature, conductivity (salinity), and pressure (depth), and is also known as a conductivity-temperature-depth instrument or "CTD". Water profiles are collected through "casts" where the sonde is lowered through the water column and records digital measurements of the water properties.
Tablet computer	1	30 cm x 20 cm	Used to operate the multi-parameter sonde
Snowmobiles	3	2 m x 0.75 m	To access sites on sea-ice
Boat	1	20 ft	If we are able to get in the water before freeze up it would be by boat access
ice auger	1	10 diameter	Ice auger that drills holes 8-10 ' in diameter to sample through

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	1	100	100	Liters	I am not 100% sure whether the boat is gas or diesel based. But if we use the boat as it is late in the season it would only be 1-5 times, depending on when our licence comes through (with or not at all)
Gasoline	fuel	1	500	500	Liters	To fuel snowmobile travel. Community members are responsible and compensated for their fuel

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:

Documented in Additional info: - Noise from vessels and snowmobiles - mitigation is to try and be as efficient in data collection as possible to reduce the days in environment so as not to disturb wildlife frequently and or have more than needed carbon emissions - Sea-ice drilling (8 inch diameter hole) - holes are spread out as sample locations are distributed across the bay. The holes are as small as possible for the instrument to fit through into the water and reduce light penetration).

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

This project is primarily in Frobisher Bay, but community members will transit to the sea-ice/ocean from Iqaluit community. The data collection is conducted in Frobisher Bay and falls within areas of hunting and fishing by the community, along with marine/sea-ice transit routes. The community members who are conducting the data collection live in Iqaluit and have advised the station locations and will not disrupt peoples hunting or travel while data collecting. The noise of the vessel and snow mobiles are one of the few physical impacts of this project, as these are community owned vehicles they would be used in the area normally, so the additional impact is the times they will be used for project specific work, which will be approximately 20-30 days of work. A second consideration for impact on the physical conditions is during the sea-ice period. To access the water column and lower an instrument through the water, community members will need to drill a hole in the ice (~8 inches in diameter), due to the dynamic nature of the tides and sea-ice these holes will more likely than not close within a 24hr period.

Description of Existing Environment: Biological Environment

This project will have little to no direct impact on the biological environment as no physical sampling or extraction is occurring. However, it does occur in areas that are local marine habitats and likely are close to or overlap spawning regions (e.g. Arctic Cod and Char). Further the study area overlaps areas of cultural, environmental and archeological significance: traditional hunting and fishing regions, along with the data collection proximity to Qaummaarvitt Territorial Park near Peterhead Inlet. The disruption will be limited to the presence of the sampling crew (3 people) and their boat or snowmobiles in the area (along with sea-ice drilling in the sea-ice season). Each data collection event will take 10-30 minutes at the location.

Description of Existing Environment: Socio-economic Environment

This projects is embedded within the community of Iqaluit in that community members play a vital role in both defining research objectives and stations, and in conducting data collection activities. This project contributes positively to the economic welfare of community members and to their collective role in, and understanding, the intended research. It also includes a concluding workshop to share data collected and information with community members over this project and other OPP aspects

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

Employment will be positively impacted in that local community members in Iqaluit are paid to collect all of the oceanographic data. This is facilitated through a local contractor and through support from the Hunters and Trappers Association. · Noise levels will be negatively impacted but in an extremely minimal way. Community members are expected to travel to data collection sites by small vessel during the open water season and by snow machines when the

sea-ice is safe to travel on. The mitigation is that this project relies on these standard, local means of transportation as opposed to other projects, which commonly use larger research or fishing vessels (that generate more noise and waste). Noise generation is therefore within the normal levels expected of community members. Activities are periodic and not sustained so will only generate noise for a few hours in a single day, one to four times per month.· As this is not a construction project and does not alter the physical or biological environment, overall impact on the environment is negligible. Data collection consists of digital recordings of instrument measurements of water properties (i.e. temperature, salinity, pressure, etc.) and of observational data of community members (e.g. weather and ice conditions); no physical samples are collected.

Cumulative Effects

Positive cumulative effects include an increased capacity within the community to support future data collection activities and increased employment opportunities (both immediate and long-term) for community members. This is due to the fact that a substantial portion of the funding is set aside to pay community members and that the role of Ocean Networks Canada is to provide post-secondary education/training to community members in order to support their ability to participate in this project and others. Potential negative cumulative effects include fuel consumption and noise generation from small vehicle use. Neither of these effects are sustained nor are they serious in nature as they are within what is typical of community members traveling in their local region.

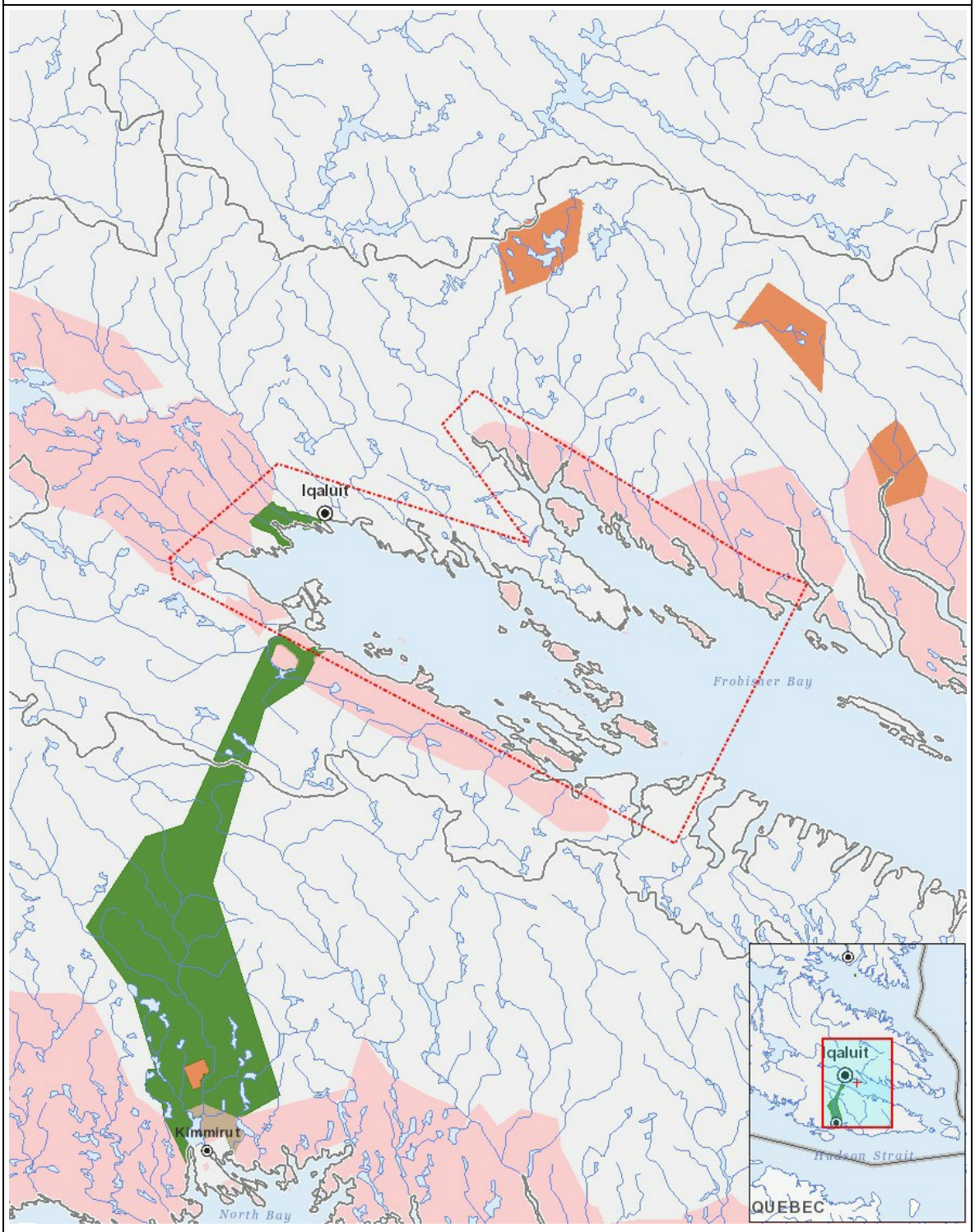
Impacts

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																									
Marine Based Activities		-	-	-	-	-	-	-	-	-	-	-	N		-	-	-	-	-		-	P	-	-	-
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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

Project Location



List of Project Geometries

1	polyline	Designated stations within Frobisher Bay and Ward Inlet will be visited for sampling. The primary focus is in the head of Frobisher Inlet near Iqaluit town, See project description/map. We can provide specific coordinates too if desired