



## **NIRB Application for Screening #125365**

### **Characterizing Iqaluit's baseline municipal wastewater contaminant loadings to the marine environment**

**Application Type:** New

**Project Type:** Scientific Research

**Application Date:** 7/4/2018 12:03:51 PM

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

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

**Project Proponent:** Mark Hanson  
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Canada  
Phone Number:: 204-474-9897, Fax Number::

## **DETAILS**

### **Non-technical project proposal description**

English: Added as attached file.

French: Added as attached file.

Inuktitut: Added as attached file.

### **Personnel**

Personnel on site: 2

Days on site: 21

Total Person days: 42

Operations Phase: from 2018-08-26 to 2022-03-25

## Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Possible Reference Site	Sampling sites	Marine	Site of continuous effluent release by the City of Iqaluit for many years.	Not known.	Adjacent to the City of Iqaluit wastewater treatment plant.
Possible Reference Site	Sampling sites	Marine	Not known.	Not known.	Located near Iqaluit, but outside the Sylvia Grinnell Territorial Park.
Sampling site in effluent plume	Sampling sites	Marine	Active shipping lane.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site in effluent plume	Sampling sites	Marine	Active shipping lane.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site in effluent plume	Sampling sites	Marine	Active shipping lane.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site at possible farthest extent of effluent plume	Sampling sites	Marine	Active shipping area.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site at possible farthest extent of effluent plume	Sampling sites	Marine	Active shipping area.	Not known.	Close to City of Iqaluit and proposed new harbour.

## Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Iqaluit	Matthew Hamp	City of Iqaluit	2018-05-07
Iqaluit	Christopher Lewis	Department of Fisheries and Oceans	2018-05-01
Iqaluit	Pitseolak Alainga	Amaruq Hunters and Trappers Association	2018-05-01

## Authorizations

Indicate the areas in which the project is located:

South Baffin

### Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Information is not available				

### Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	Boat and snowmobile in winter	

### Project accomodation types

Community

# Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Manta trawl	1	2m by 1m	Skim water surface for microplastic sampling

## 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
Researching	Sewage (human waste)	2L of effluent each year of study	Filtrate collected from wastewater effluent will be filtered for microbial analysis at a lab located at the NRI. Resulting filtrate will be sterilized (isopropyl alcohol or bleach) and disposed of down the drain, or stored for disposal back at the wastewater plant, depending on NRI preference or policy.	If available, we will also autoclave the waste.

## Environmental Impacts:

There should be no environmental impacts from the proposed sampling program.

# **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**

Our study should result in no impacts to ecosystems or human health.

**Cumulative Effects**



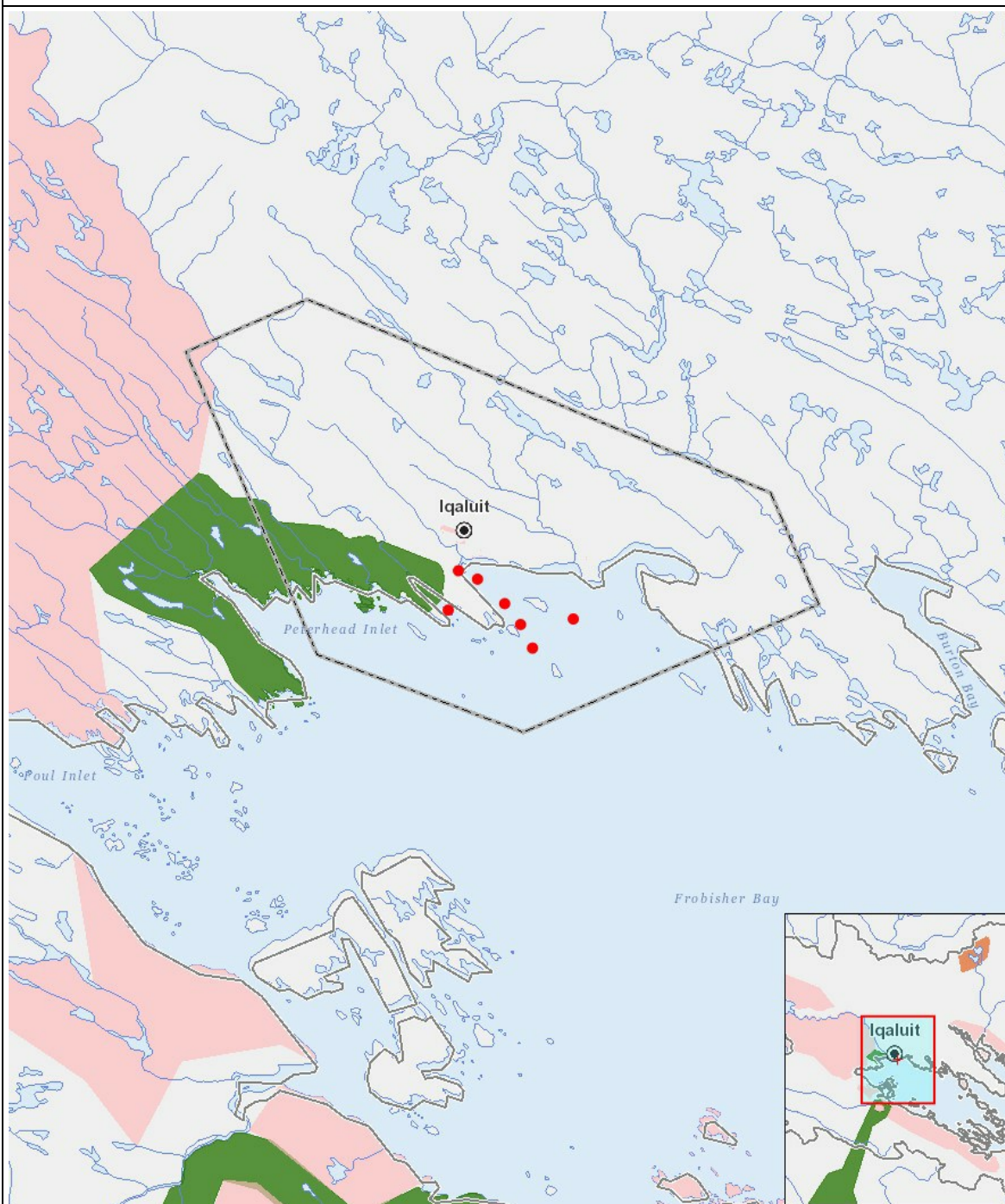
# Impacts

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

## PROJECT MAP



### LIST OF PROJECT GEOMETRIES:

- |   |       |   |
|---|-------|---|
| 1 | point | Possible Reference Site   |
| 2 | point | Sampling site in direct City of Iqaluit wastewater effluent release |
| 3 | point | Sampling site in effluent plume                                     |
| 4 | point | Sampling site in effluent plume                                     |
| 5 | point | Sampling site in effluent plume                                     |
| 6 | point | Sampling site at possible farthest extent of effluent plume         |
| 7 | point | Sampling site at possible farthest extent of effluent plume         |