



## **NIRB Application for Screening #126022**

### **Chesterfield Inlet Sealift Improvements Project**

**Application Type:** New

**Project Type:** Coastal Infrastructure

**Application Date:** 12/23/2024 1:39:39 PM

**Period of operation:** from 2025-06-25 to 2055-10-25

**Project Proponent:** Richard Hoos  
Tetra Tech Canada Inc.  
1000, 885 Dunsmuir Street  
Vancouver British Columbia V6C 1N5  
Canada  
Phone Number:: 604 813 4952, Fax Number::

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### 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
Chesterfield permitting contact footprints	Harbour infrastructure	Municipal	Site of the original Sealift infrastructure at Chesterfield Inlet	Historically disturbed area, no known archaeological sites	community marine infrastructure

## Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Chesterfield Inlet	Paul Basetti SAO	Hamlet of Chesterfield Inlet	2024-10-24
Chesterfield Inlet	Paul Basetti, SAO	Hamlet of Chesterfield Inlet	2024-10-12
Chesterfield Inlet	Venissa Mimialik Manager	Aqigiq Hunters and Trappers Association	2023-09-13

## Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Fisheries and Oceans Canada	DFO Authorization or Letter of Advice	Not Yet Applied		
Transport Canada	Approval	Not Yet Applied		

### Project transportation types

Transportation Type	Proposed Use	Length of Use
Land		

### Project accomodation types

Community

## Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Dump Truck	3	15-30 tons	Haul and dump aggregate from existing Hamlet quarry to construction site
Excavator with additional rock drill attachment	1	35 tons	excavate rock/aggregate material at existing quarry and load dump trucks
Crawler Dozer with tilting Blade	1	25 tons	push and spread rock/aggregate material at construction site
Grader	1	20 tons	spread rock/aggregate material at construction site
Front End Loader	1	20 tons	Load and spread rock/aggregate material at construction site
Vibratory Soil compactor	1	19 tons	compact rock/aggregate material at construction site

### 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	10000	10000	Liters	all fuel will be supplied from the Hamlet fuel dispensing station. Fuel will be loaded into the built in fuel tanks of each of the construction equipment units used for this project
Diesel fuel	hazardous	8	200	1600	Liters	The only hazardous material used for the construction of this project is the diesel fuel. Diesel fuel will be stored in each of the built in fuel tanks of the construction equipment to be used

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#### Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Not Applicable	Not Applicable

# Waste

## Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Harbour infrastructure	Sewage (human waste)	100 litres	Community facilities	Not Applicable

## Environmental Impacts:

Positive impacts will be achieved for the residents of the Hamlet of Chesterfield Inlet as the sealift improvements project will permit an increase in the volume and variety of cargos that can be offloaded on an annual basis. A locally negative/non mitigable impact will occur to the 0.5 hectares of benthic intertidal marine habitat to be permanently buried by fill and aggregate materials that will be placed and compacted in this area for construction of the expanded sealift ramp. Negative/mitigable potential impacts on fish will be mitigated by conducting all potential in-water work "in the dry" during low tide conditions .



# **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**

the main project components are the expanded sealift storage area (0.5 ha) and the upgraded barge ramp

## **SECTION D2: Facility Construction**

The proposed sealift improvement components will be constructed utilizing aggregate and rock materials obtained from the community quarry and hauled by truck to the project area for placement and compaction to construct the expanded sealift laydown area and the upgraded barge ramp. Construction will occur during the open water periods of 2025 and 2026.

## **SECTION D3: Facility Operation**

the expanded sealift laydown area and upgraded barge ramp will be used on a seasonal basis during the open water period. some cargo (container) may be stored in the sealift storage area for extended periods of time.

## **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**

No vessels will be used for this construction project. all work will be conducted by land based construction equipment such as trucks, grader, excavator, dozer and water truck.

## **SECTION H2: Disposal At Sea**

There will be no disposal at sea. the placement of fill in the upper intertidal zone of the small bay at Chesterfield Inlet is a marine infrastructure construction project

## **SECTION I1: Municipal Development**

### **Description of Existing Environment: Physical Environment**

Chesterfield Inlet is a narrow, fiord-like arm of the northwest coast of Hudson Bay that stretches 160 km inland to the Thelon River. It marks a physiographic divide along the Bay, separating a narrow, rocky coastal plain backing onto a plain and hilly area to the north, from an enormous area of low relief, with poorly developed drainage farther south. Chesterfield Inlet's climate is noteworthy for its windiness, since the inlet is aligned with prevailing winds from the northwest, which are remarkably strong in winter (mean velocity 8.7 m/s, reaching 36 m/s) and constant, blowing on average 20% of the time. The mean annual temperature is approximately -11°C, with a summer mean of 4.5°C and a winter mean of -26.5°C. The mean annual precipitation ranges between 200-300 mm.

### **Description of Existing Environment: Biological Environment**

The area is characterized by a discontinuous cover of tundra vegetation, consisting of dwarf birch, willow, northern Labrador tea, *Dryas* spp., and *Vaccinium* spp. Taller dwarf birch, willow and alder occur on warm sites; wet sites are dominated by willow and sedge. Lichen-covered rock outcroppings are prominent throughout the ecoregion, and towards the south the vegetation becomes a mix of tundra vegetation and open, dwarf coniferous forest. Chesterfield Inlet is located on the western shore of Hudson Bay, Kivalliq Region, at the mouth of Chesterfield Inlet, which extends from Hudson Bay to Baker Lake. The shore area of the Hamlet of Chesterfield Inlet becomes landfast during winter and the intertidal zone is frozen throughout the long winter period. In this area, ice scour and temperature extremes render the upper few metres of the seabed (2-5 m) to be uninhabitable to marine plants and infaunal animals (Ellis 1960). Amphipods are the only common species found in the intertidal zone. Shells of softshell clams, cockles and

Icelandic Scallop are commonly found washed up on the local beaches. The beach area in the vicinity of the existing sealift facilities is a typical sandy, gravelly beach with cobbles and scattered boulders. Tides at Chesterfield Inlet are diurnal (2 x per day) and have a typical range of approximately 4 m typically extending from about 0.5 m (low tide) to 4.5 m (high tide). Arctic Char, Arctic Cod, Capelin and several flounder species occur in the area around Chesterfield Inlet and, are considered to be of particular cultural and economic importance to the community of Chesterfield Inlet (NCRI 2015) and are discussed further in the following sections.

### **Description of Existing Environment: Socio-economic Environment**

Chesterfield Inlet, or Igluligaarjuk, is located on the western shore of Hudson Bay, Kivalliq Region, in Nunavut Canada at the mouth of Chesterfield Inlet. Located at 63° 20' N and 90° 42' W, it is 1,096 km west of Iqaluit and 1,200 km northeast of Yellowknife. Igluligaarjuk is the Inuktitut word for place with few houses. It is the oldest community in Nunavut. Historically, Chesterfield Inlet began as a meeting place for Inuit seal hunters to carry out an annual hunt in the late spring and early summer. After 1912, Chesterfield Inlet became an important religious, medical and educational centre for the region. The community's population grew when several groups of Netsilik Inuit migrated there from Foxe Basin, joining the Qairnilirmeot group who were the area's traditional inhabitants. The economy of the Hamlet remains traditional and includes hunting, trapping and carving. Some commercial fishing and limited tourism are also carried out.

### **Miscellaneous Project Information**

Miscellaneous information is provided in the documents section of the application

### **Identification of Impacts and Proposed Mitigation Measures**

Positive impacts will be achieved for the residents of the Hamlet of Chesterfield Inlet as the sealift improvements project will permit an increase in the volume and variety of cargos that can be offloaded on an annual basis. A locally negative/non mitigable impact will occur to the 0.5 ha area of benthic upper intertidal marine habitat to be buried by the fill and rip rap rock to be placed to allow expansion of the existing sealift area into the adjacent bay. Negative/mitigable potential impacts on fish will be mitigated by conducting all potential in-water work in the dry during low tide conditions

### **Cumulative Effects**

No cumulative environmental effects are expected to occur in relation to this marine infrastructure improvements project

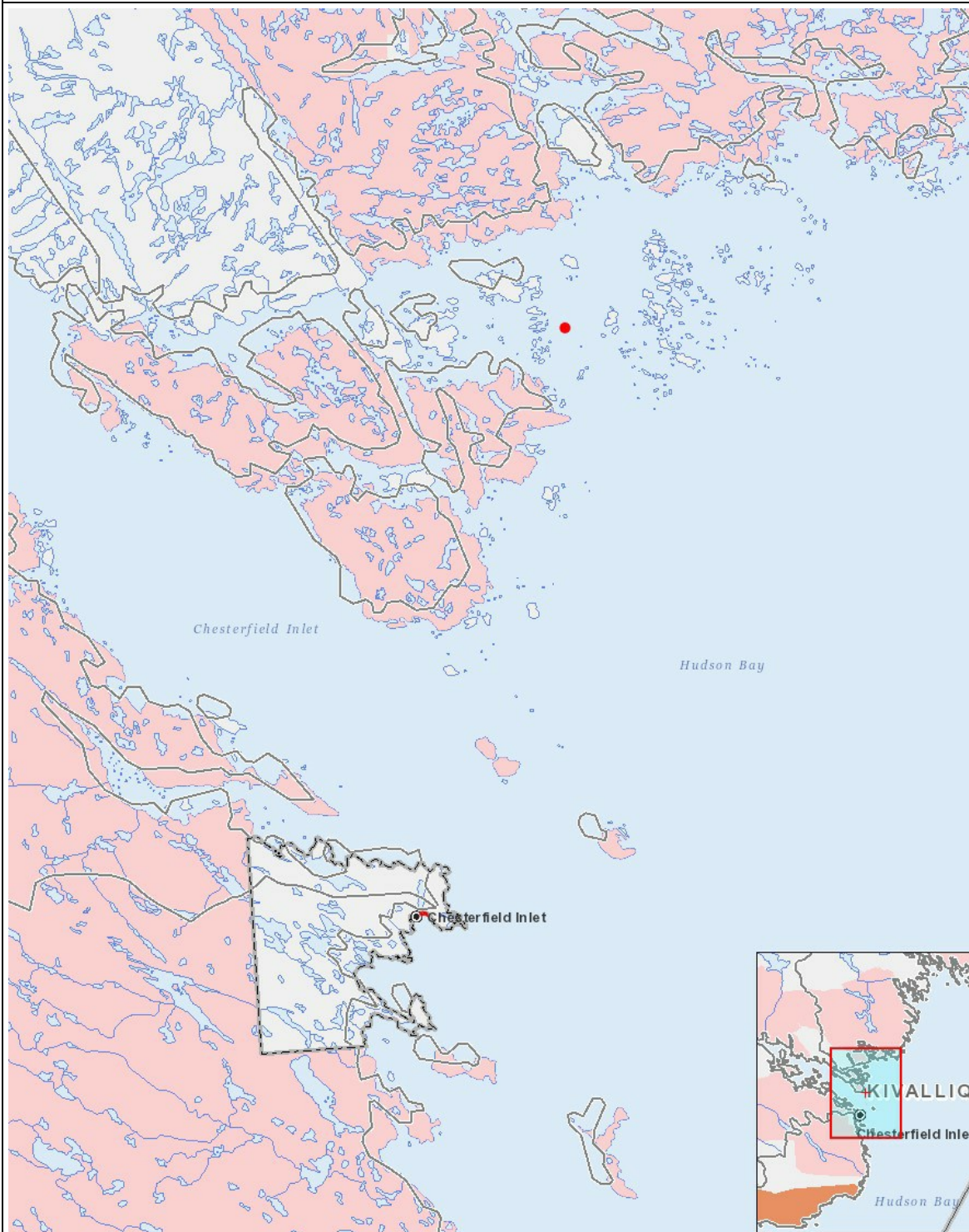
Impacts

Identification of Environmental Impacts

	PHYSICAL												BIOLOGICAL												SOCIO-ECONOMIC											
	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												Wildlife protected areas												Human health											
	Climate conditions												Wildlife protected areas												Human health											
	Eskers and other unique or fragile landscapes												Wildlife protected areas												Human health											
	Surface and bedrock geology												Wildlife protected areas												Human health											
	Sediment and soil quality												Wildlife protected areas												Human health											
	Tidal processes and bathymetry												Wildlife protected areas												Human health											
	Air quality												Wildlife protected areas												Human health											
	Noise levels												Wildlife protected areas												Human health											
	Vegetation												Wildlife protected areas												Human health											
	Wildlife, including habitat and migration patterns												Wildlife protected areas												Human health											
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(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

## Project Location



## List of Project Geometries

- |   |          |  |
|---|----------|--|
| 1 | polyline | Chesterfield permitting contact footprints                           |
| 2 | polyline | Chesterfield permitting contact footprints                           |
| 3 | point    | Existing Sealift area at Chesterfield inlet which requires expansion |