NIRB Application for Screening #125424

Drainage Improvements & Shore Protection - Pangnirtung, NU

Application Type:	New
Project Type:	Other
Application Date:	11/29/2018 10:06:10 AM
Period of operation:	from 0001-01-01 to 0001-01-01
Proposed Authorization:	from 0001-01-01 to 0001-01-01
Project Proponent:	Eleanor McEwan Fisheries and Oceans Canada -Small Craft Harbours 501 University Crescent Winnipeg Manitoba R3T 2N6 Canada Phone Number:: 204-984-1102, Fax Number::

DETAILS

Non-technical project proposal description

English: Project Proposal Description: Drainage Improvements & Shore Protection, Pangnirtung, NUThe Department of Fisheries and Oceans, Small Craft Harbours Branch is responsible for keeping the Pangnirtung Harbour in safe working condition. Small Craft Harbours is proposing the following work:1. Drainage Improvements:a.To prevent harbour erosion in the spring melt, Small Craft Harbours is proposing to: 1.Realign and deepen the existing drainage ditch 2.Replace the existing culverts in the drainage ditch and resurface the road over new culverts with new gravel 3.Realign and resurface the existing harbour access road and upper road with new gravel 4.Remove the old culverts, resurface the parking area with new gravel, and install rock shore protection to prevent future erosion 5.Install rock erosion control in new drainage ditch to ensure it functions properly in the spring2. Berm Extension: a.To prevent the entrance channel of the harbour from infilling, Small Craft Harbours is proposing to: 1.Construct a rock berm extension between harbour entrance channel and tidal drainage outlet3. Breakwater Upgrades:a.To keep the existing harbour in good working condition, Small Craft Harbours is proposing to: 1.Install armour stone on the existing breakwater in areas required 2.Install additional gravel on fixed wharves where required 3.Install rock for shore protection/erosion control on inner basin of the harbour

French: Description de la proposition de projet : Amélioration du drainage et protection des berges, Pangnirtung (Nunavut)La Direction des ports pour petits bateaux de Pêches et Océans Canada est chargée de maintenir le port de Pangnirtung en bon état de fonctionnement. Ports pour petits bateaux propose les travaux suivants :1. Amélioration du drainage :a.Afin d'empêcher l'érosion du port lors de la fonte printanière, Ports pour petits bateaux propose les mesures suivantes : 1.Réaligner et approfondir le fossé de drainage existant. 2.Remplacer les ponceaux existants dans le fossé de drainage et refaire le revêtement de la route sur les nouveaux ponceaux avec du gravier neuf. 3.Réaligner et refaire le revêtement de la route d'accès au port et de la route supérieure avec du gravier neuf. 4.Enlever les vieux ponceaux, refaire le revêtement du stationnement avec du gravier neuf et installer un dispositif de protection des berges en roches pour prévenir l'érosion. 5.Installer un système de contrôle de l'érosion des roches dans le nouveau fossé de drainage pour veiller à son bon fonctionnement au printemps.2. Prolongement de berme :a.Afin d'éviter le remplissage du chenal d'entrée du port, Ports pour petits bateaux propose les mesures suivantes : 1.Construire un prolongement de berme en enrochement entre le chenal d'entrée du port et la bouche du système de drainage des eaux de marée.3. Mises à niveau du brise-lames :a.Afin de maintenir le port en bon état de fonctionnement, Ports pour petits bateaux propose les mesures suivantes : 1.Installer des pierres de protection aux endroits requis sur le brise-lames existant. 2.Installer du gravier supplémentaire sur les quais fixes, au besoin. 3.Installer de la roche pour protéger les berges et contrôler l'érosion sur le bassin intérieur du port.

Inuktitut: ᐱᓕᕆᐊᕐᒥᒃ ᑐᒃᓯᕋᐅᑎᑉ ᐅᓂᑉᑲᖅᓯᒪᓂᖓ: ᑯᒡᕕᑦ ᐊᕐᑭᒃᑕᐅᓂᖏᑦ ᐊᒻᒪ ᓯᔾᔭᐅᑉ ᒥᐊᓂᕆᔭᐅᓂᖓ, ᐸᖕᓂᖅᑐᒻᒥ, ᓄᓇᕗᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᑯᑦ, ᐅᒥᐊᕐᓂᒃ ᒥᑭᔪᓐᓂᒃ ᐱᓕᕆᐊᖃᖅᑐᑦ ᐱᔭᒃᓴᖃᕐᒪᑕ ᐸᖕᓂᖅᑐᑉ ᑭᓴᕐᕕᖓᓂ ᖃᓄᐃᑎᑦᓯᑕᐃᓕᓂᕐᒥᒃ ᐊᐅᓚᑎᑦᓯᓯᐊᕐᓂᕐᒥᒡᓗ. ᐅᑯᐊ ᒥᑭᔪᓄᑦ ᐅᒥᐊᕐᓄᑦ ᑭᓴᕐᕕᓕᕆᔨᑦ ᐱᓕᕆᐊᕆᔪᒪᕙᖓᑦ:1.ᑯᒡᕕᑦ ᐊᕐᑭᒃᓱᖅᑕᐅᓂᖏᑦ:a.ᑭᓴᕐᕕᐅᑉ ᓄᓇᖁᑎᖓ ᓱᕈᓗᐊᖅᑕᐃᓕᑎᓪᓗᒍ ᐅᐱᕋᒃᓴᒻᒥ ᑯᒃᐸᓕᐊᑎᓪᓗᒍ, ᒥᑭᔪᓂᑦ ᐅᒥᐊᕐᓂᒃ ᑭᓴᕐᕕᓕᕆᔨᑯᑦ ᐅᑯᓂᖓ ᑐᒃᓯᕋᖅᐳᑦ ᐱᓕᕆᔪᒪᑉᓗᑎᒃ: 1.ᑎᑯᖅᓯᒥᐊᕐᓗᒍ ᐃᑎᓂᖅᓴᐅᓕᕐᓗᒍᓗ ᑯᒡᕕᒃ 2.ᑯᒡᕕᑦ ᐊᓯᐊᖑᖅᑎᕐᓗᒋᑦ ᐊᒻᒪ ᐊᑉᖁᑦ ᓯᐅᕋᖅᑕᑲᓐᓂᕐᓗᒍ ᓄᑕᑦ ᑯᒡᕕᑦ ᐃᓕᔭᐅᒐᓂᒃᓯᒪᓕᖅᐸᑕ 3.ᑎᑯᖅᓯᒥᐊᕐᓗᒍ ᓯᐅᕋᖅᑕᕐᓗᒍᓗ ᑭᓴᕐᕕᖕᒧᖓᐅᔪᖅ ᐊᑉᖁᑎᒃ ᑕᒪᕐᒥᒃ 4.ᓄᑕᐅᖏᑐᑦ ᑯᒡᕕᑦ ᐊᓯᕙᕐᓗᒋᑦ, ᓯᐅᕋᖅᑕᕐᓗᒍᓗ ᖃᖓ ᐅᔭᕋᓕᖅᑐᕐᓗᒍᓗ ᑭᓴᕐᕕᖕᒥ ᓄᓇ ᓄᖑᐸᓕᐊᓂᖓᖏᒪᑦ 5.ᐅᔭᕋᓕᕐᓗᒍ ᓄᖑᐸᓕᐊᓂᖓ ᑯᒡᕕᖓ ᐅᐱᕋᒃᓴᒻᒥ ᑯᓕᖅᐸᑦ ᓄᓇ ᓄᖑᐸᓕᐊᓂᖓᖏᒻᒪᑦ 2.ᐊᕙᓗᖓ ᑕᑭᒃᓕᒋᐊᕐᓗᒍ:a.ᑯᒃᐸᓕᐊᓂᖓ ᐃᒥᕐᒥᒃ ᑕᑕᐸᓕᐊᕐᑯᓇᒍ, ᒥᑭᔪᓂᒃ ᐅᒥᐊᕐᓂᒃ ᑭᓴᕐᕕᓕᕆᔨᑦ ᐅᑯᓂᖓ ᐱᓕᕆᓱᐊᖅᐳᑦ: 1.ᐅᔭᕋᖕᓂᒃ ᐃᓕᓯᓗᑎᒃ ᑭᓴᕐᕕᐅᑉ ᐊᒻᒪ ᑯᒡᒡᕕᐅᑉ ᐊᑯᓐᓂᖓᓄᑦ 3.ᑐᓚᒡᕕᐅᑉ ᐃᓚᒋᐊᑲᓂᕈᑎᖏᑦ:a.ᑭᓴᕐᕕᒃ ᐱᐅᖃᑦᑕᕐᓂᐊᕐᒪᑦ ᑭᓴᕐᕕᓕᕆᔨᒃᑯᑦ ᐅᑯᓂᖓ ᐱᓕᕆᔪᒪᕗᑦ: 1.ᐅᔭᕋᓕᖅᑐᐃᓗᑎᒃ ᑭᓴᕐᕕᐅᑉ ᐅᓕᖑᑦᑕᕐᓂᖓᓄᑦ ᐱᔭᕆᐊᓕᖕᓄᑦ 2.ᓯᐅᕋᓕᑲᓂᕐᓗᒍ ᑭᓴᕐᕕᐅᑉ ᐃᓚᖓ ᐱᔭᕆᐊᖃᖅᑐᖅ 3.ᐅᔭᕋᓕᖅᑐᐃᓗᑎᒃ ᓯᔾᔭᒻᒥ ᓄᓇ ᓄᖑᐸᓕᐊᕐᑯᓇᒍ ᑲᖏᖅᖢᑉ ᐃᓗᐊᓐᓂ

Inuinnaqtun: Havaariyauyumayuq Qanuriniga: Kuukniginit Ihuaqhivaaliriagani Hinaaniklu Munariyauniganik Pangnirtuumi, Nunavumi Havakviuyuq Iqaluliqinikut Taqyumiutaniklu, Mikiyut Qainanit Qayaqaqvikhaq Havakvik havaaqaqtut Pangnirtuumi Qayaqaqviat aaniqnaitagani havakviunigani qanuriniganik. Mikiyut Qainanit Qayaqaqviit aturumakmata ukuniga havaakhanik: 1. Kuukniginik Ihuaqhivaaliriagani: a.Qayaqaqvikmi nunat hituagitaagani upingaami mahaktiqtilugu, Mikiyunik Qainanik Qayaqaqviit aturumayut ukuniga: 1.Kuuknigit ahiaguuqtilugit atikhivaaliriaganilu kuukviuyut atiknigit 2.Himauhiqlugit taja tuuqhuat kuukviuyut qaagilu ihuaqhaqlugit apqutit nutaat tuuqhuat

qaagaruuktut nutaanik uyaralianik iliurailutik 3.Ahiaguuqtilugu qaagalu hiuraliaqtiqlugu atuqtuq qayaqaqvikmut apqutauyuq quuliqlu apqutauyuq nutaanik uyaralianik 4.Ahivaqlugit utuqait tuuqhuat kuukviuyut, uyaraliamik ihuaqhaqlugu akhalutiqaqvik nutaanik uyaralianik, iliurailutiklu uyaqanik hinaani munariyaagani hivunihami nunap hituaqpalianiganik 5.Iliurailutik uyaqanik nunat hiariipkutikhaini nutaami kuukviuyuni atiqnigini aulaniqariagani ihuaqtumik upingaami 2. Immagiipkut Ilagiaqlugu:a.Itiqtiriaqvik ikirahak qayaqaqvikmut immakpaliagitaagani, Mikiyunik Qainanik Qayaqaqviit piyumayut imaa: 1.Hanalutik uyaqanik immagiipkutikhat ilauriagani qayaqaqviup itiqtiriavianit immaiyaqniganut taaqyuup 3. Maliiqrumiuvik Nutaaguqtiqniganik: a.Atuqtuq qayaqaqvik nakuuyumik aulaniqatiariagani qanurinigalu, Mikiyunik Qainanik Qayaqaqviit piyumayut imaa:1.Iliurialutik aulajalaitunik uyaqanik atuqtumi maliilrumiuvik ukunani piyariaqaqtuni 2.Iliurailutik ilagiarutikhanik uyaralianik tuunmiqani humiliqaa piyariaqaqtuni 3.Iliurailutik uyaqanik hinaa munariyauyaagani nunalu hituagitaagani iluani qayaqaqviup

Personnel

Personnel on site: 4
Days on site: 60
Total Person days: 240
Operations Phase: from 2019-06-23 to 2019-10-28
Operations Phase: from 2019-06-23 to 2019-10-23
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
New project geometry	Harbour infrastructure	Crown	Pangnirtung Harbour is the first Small Craft Harbour in Nunavut. Project includes addition of a rock berm to prevent in-filling of navigation channel. Rock sourced from existing local Hamlet borrow pit.	n/s	The harbour is located in the community of Pangnirtung.
New project geometry	Harbour infrastructure	Crown	Pangnirtung Harbour is the first Small Craft Harbour in Nunavut. Project includes addition of rock shore protection and armour stone to existing infrastructure. Rock sourced from existing local Hamlet borrow pit.	n/a	The harbour is located in the community of Pangnirtung.
New project geometry	Access Road	Crown	Pangnirtung Harbour is the first Small Craft Harbour in Nunavut. Project includes the realignment of an existing drainage ditch and access road to the harbour. Culverts and geotextile material will be shipped to community for the project.	n/a	The harbour is located in the community of Pangnirtung.

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Pangnirtung	Eric Lawlor - Economic Development Officer	Hamlet of Pangnirtung	2018-11-26

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	FPP Request for Review regarding the addition of the rock berm	Applied, Decision Pending		
Transport Canada	Navigation Protection Program Notice of Works submitted to TC for review of the Rock Berm Addition	Applied, Decision Pending		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	It is assumed that the personnel and possibly some materials will arrive in Pang by commercial flights.	
Water	It is assumed that the successful contractor will transport materials for the project (culverts, geotextile, and possibly a new rock crusher) to the site by sealift.	
Land	The crew will drive or walk to the harbour site in Pang from their local lodgings. The rock will also be transported form the local borrow pit to site overland by rock truck.	

Project accomodation types

Community

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
CAT 345 Excavator	2	4.4m x 3.5m	Excavator used to excavate new ditch alignment, place rock
Rock Trucks	2	4.4m x	haul rock from rock pit to jobsite, deposit spoil material in designated location. already located in Hamlet

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
Access Road	Overburden (organic soil, waste material, tailings)	380	land disposal at designated location approved by Hamlet - material to be disposed is local material excavated for the new ditch alignment	n/a

Environmental Impacts:

Predicted environmental impacts: 1. Access road and drainage ditch realignment: -loss of existing vegetation in existing drainage ditch - excess excavated material to be deposited in a spoil location approved by the Hamlet of Pangnirtung. Other than an approximately 380 cubic meter volume of local material deposited in the designated area, there are no foreseen impacts of the spoil pile 2. Harbour Infrastructure: a. New Rock Berm in tidal flat area -the proposed new rock berm will provide increased interstitial habitat spaces for fish at higher tides, as well as provide additional foraging areas for fish by providing surface area for algae growth and interstitial spaces for invertebrates - the proposed berm will reduce the sediment infilling of the entrance channel to the harbour -the proposed rock berm will be constructed at low tide, allowing access to the site across the tidal flats, thereby eliminating in-water work b. Additional Shore Protection and Armour Stone -the proposed work is to be done at low tide to eliminate in-water work. - the work is topping-up rock in existing area - no negative impacts forseen

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

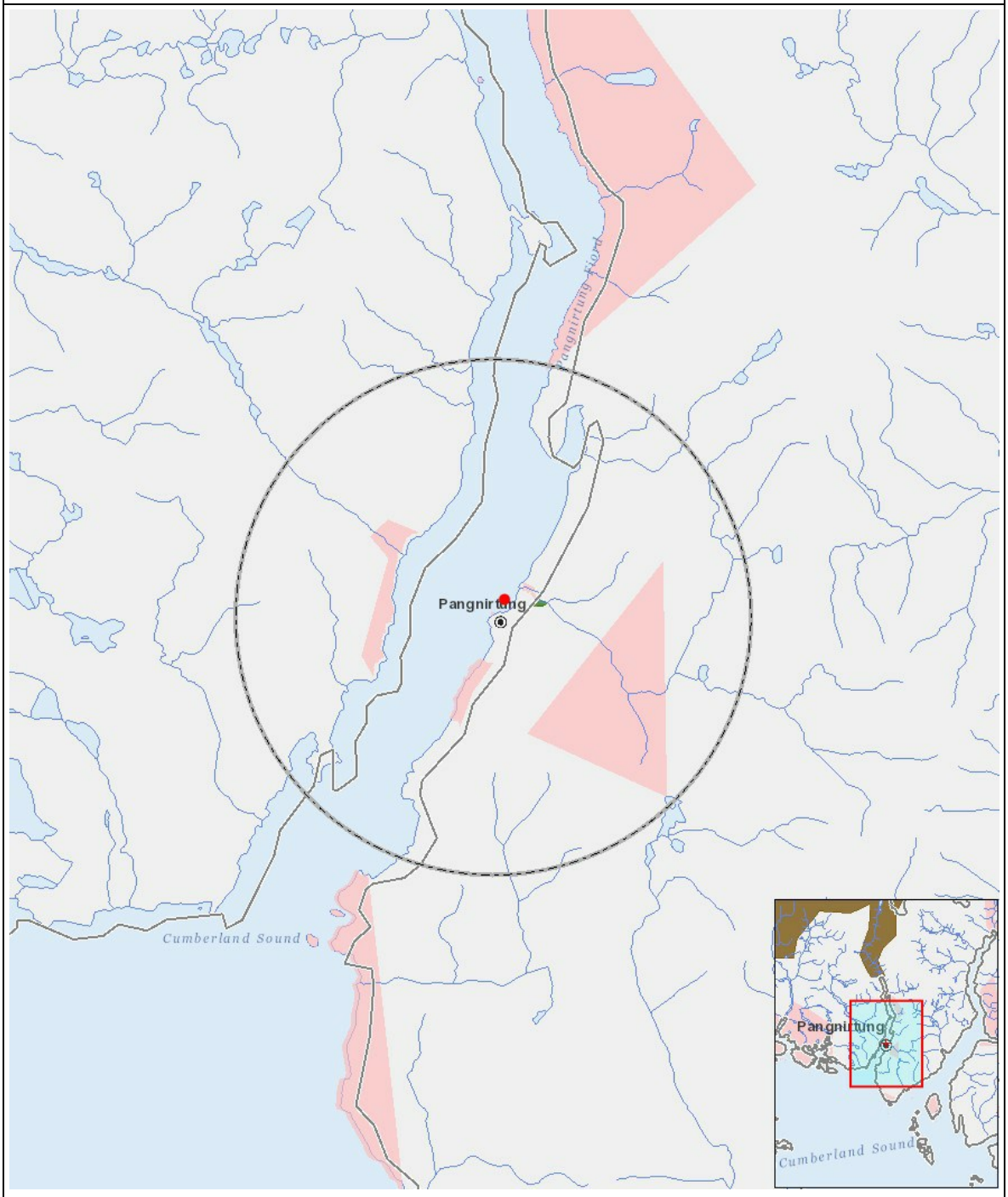
Cumulative Effects

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																									
Harbour infrastructure		-	-	-	-	-	-	-	-	-	P	-	M		-	-	-	-	-		P	-	-	-	-
Access Road		-	-	-	-	-	-	-	-	-	-	-	M		M	-	-	-	-		P	-	-	-	-
Operation																									
Harbour infrastructure		-	-	-	-	-	-	-	-	-	P	-	-		-	-	-	P	-		P	-	-	-	-
Access Road		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		P	-	-	-	-
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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

Project Location

List of Project Geometries
1 point New project geometry