

**Marina Development
Port Blandford, NL
Environmental Registration Document**

**Submitted to the Government of Newfoundland and Labrador
Department of Municipal Affairs and Environment
Environmental Assessment Division**

**Prepared For: Fisheries and Oceans Canada
Small Craft Harbours Branch - Eastern Area**

Prepared By: Public Services and Procurement Canada

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1.0 NAME OF UNDERTAKING:

Marina Development, Port Blandford, NL

2.0 PROPONENT:

- (i) Department of Fisheries and Oceans Canada
Small Craft Harbours Branch (DFO-SCH)

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3.0 THE UNDERTAKING:

3.1 Nature of the Undertaking:

The scope of work includes construction of a new rock infilled breakwater, reinforced concrete launchway, and rubble mound breakwater at the DFO-SCH facility in Port Blandford, NL (See Appendix A). The existing finger pier wharf will be partially removed. The portion of the wharf cribwork to remain is approximately 90 m long and 5.5 m wide. One 15 m section located at the end of the existing finger pier wharf will be removed in its entirety. The project will also see construction of a new concrete launchway along the western side of the marina. The new launchway will be 24 m long and 5 m wide and constructed of 8 pre-cast concrete panels placed atop new rock fill and granular base. The new L-shaped rubble mound breakwater will be placed at the north end of the marina and be about 163 m long and have an approximate footprint of 5065 m². The project will involve the

dredging of the harbour basin of the new marina development with an approximate footprint of 4540 m².

3.2 Purpose/Rationale/Need for the Undertaking:

The proposed Project will provide improved launch facilities and wharf infrastructure along with necessary protection for marina infrastructure located at the DFO-SCH Port Blandford site. The Project will allow for more adequate and secure access for users of the facilities.

4.0 DESCRIPTION OF THE UNDERTAKING:

4.1 Geographical Location:

The proposed project site is located on the northeast coast of Newfoundland adjacent to the Town of Port Blandford, NL at the SCH facility. The project site is accessible by local roads via the Trans-Canada Highway Route 1. The approximate coordinates of the project site are 48°21'45" N and 54°09'40" W.

4.2 Physical Features:

Port Blandford SCH includes one parcel of land that is connected to a waterlot. The general project area includes a finger pier wharf, floating docks, gravel launchway and gravel parking lot. There are no buildings on site. Water depth at the proposed project site ranges between 0 - 4.0 metres.

The surficial geology of the area is ridged till, a blanket of diamicton, 1.5-2.0 m thick, with a topography consisting of streamlined elongate ridges 1.5-2.0 m high, and 0.2-5.0 km long (flutings, drumlins and crag and tail landforms); some examples are composed mainly of sand and gravel, or bedrock; where composed of diamicton, it is of similar composition to the till veneer unit; this unit is thought to have been deposited under actively flowing ice, with the long axis of ridges paralleling ice flow (Surficial Geology of Insular Newfoundland Preliminary Version, Government of Newfoundland and Labrador, Department of Mines & Energy, Geological Survey Branch, 1990). The bedrock geology of the area is Avalon Zone Units, late Proterozoic which includes fluvial and shallow marine siliciclastic sedimentary rocks including minor un-separated limestone and bimodal volcanic rocks (Geology of the Island of Newfoundland, Government of Newfoundland and Labrador, Department of Mines & Energy, Geological Survey Branch, 1990).

The subject property is mostly flat with surface water drainage and groundwater likely flowing east towards the waters of Port Blandford Harbour. The topography of the area is described as rolling to undulating with shallow, medium quality till and a soil texture ranging from sandy loam to loam.

The proposed marina infrastructure will improve on the existing SCH wharf present at this location; therefore alternative locations were not considered.

Physical and Biological Environment

The project site is located within the Central Newfoundland Ecoregion. Climatically, the region is described as continental, with the highest summer and lowest winter temperatures of any part of Newfoundland. High summer temperatures can lead to soil moisture deficiencies in the region, while normal soil is typically light in colour and has low organic matter content. Hylocomium-Balsam Fir forest occupies the zonal soils of the area. While in other areas forest fires have been involved in converting the main forest type to Black Spruce and to a lesser extent White Birch and Aspen (Meades and Moores, 1994).

Port Blandford is located within the Northcentral Subregion of the Central Newfoundland Ecoregion. Due to poor soil conditions the sub region has characteristic susceptibility to regeneration failure. In areas where tree regeneration cannot take place, the dwarf shrub *Kalmia angustifolia* dominates.

Species of marine fish, whose habitat encompasses the area, consist of spiny dogfish, Atlantic herring, capelin, Atlantic argentine, Arctic cod, cusk, Atlantic cod, Greenland cod, haddock, silver hake, pollock, white hake, Atlantic saury, threespine stickleback, ninespine stickleback, ocean pout, rock gunnel, Atlantic wolffish, Atlantic mackerel, bluefin tuna, swordfish, redfish, windowpane, witch flounder, American plaice, Atlantic halibut, white flounder and Greenland halibut. Anadromous fish species, which may be found in either the marine or freshwater habitats in the area (depending on the stage of their life cycle), include Atlantic salmon, Arctic char, rainbow smelt, Atlantic tomcod, Atlantic sturgeon, American shad, brook trout and American eel.

A search of the Atlantic Canada Conservation Data Centre (ACCDC) database was conducted on September 12, 2018 within a 5 km radius of the proposed project location. The ACCDC provided a list of rare/unique species (i.e., plants and animals) within a 5 km buffer zone (standard ACCDC procedure) of the site of the proposed work. Port Blandford is located within the distribution range of the Barrow's Goldeneye, listed as special concern, the American Marten, listed as threatened, and Red Crossbill listed as endangered on Schedule 1 of the Species at Risk Act (SARA) by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). It is unlikely that the proposed development contains any critical, limiting, or sensitive habitat for the listed Species at Risk.

4.3 Construction:

Commencement of this project is subject to DFO-SCH operational priorities and funding. Construction of the breakwater is expected to require 8 months to complete, commencing in late November or early December 2018.

Construction activities will include:

- Partial removal of the existing finger pier wharf (wooden decking, fenders, wheel-guards, etc.). The top of the existing crib structure will be removed to +0.40 m above L.N.T. and the native cribwork (including ballast) will remain below. The portion of the wharf cribwork to remain is approximately 90 m long and 5.5 m wide. One 15 m section located at the end of the existing finger pier wharf will be removed in its entirety. The existing floating docks, including ramps and moorings will be removed and re-located off-site prior to construction/demolition.
- Encasement of the existing ballasted cribwork remaining following demolition with new core fill, covered in geotextile and topped with two layers of 100-200 kg filter stone and protected by 1-2 tonne armour stone on the seaward side of the marina. The crest of the new structure will be 2.5 m above L.N.T. The crest will be 3 meters wide and topped with class 'A' granular base to provide walking access to the new floating docks. The new breakwater minus the footprint of the original wharf structure will be 1660 m² (2165m² – 505 m²). At least three new floating docks will be installed and connected to the reconstructed finger pier wharf/breakwater structure via new gangways and concrete headblocks.
- Placement of a new L-shaped rubble mound breakwater at the north end of the marina. The breakwater will be approximately 163 m long and have an approximate footprint of 5065 m². The structure will have a new core fill, covered in geotextile and topped with two layers of 100-200 kg filter stone and protected by 1-2 tonne armour stone on the seaward side of the marina. The crest of the new structure will be 2 meters wide and 2.5 m above L.N.T. The crest will be topped with class 'A' granular base.
- Placement of a new concrete launchway along the western side of the marina. The new launchway will be 24 m long and 5 m wide, constructed of 8 pre-cast concrete panels placed atop new rock fill and granular base. The new launchway will be protected by two layers of 100-200 kg filter stone on each side. The approximate footprint of the new launchway (below H.N.T.) will be 132 m². The project will involve the regrading of the uplands area behind the new launchway on the western side of the marina basin to provide positive drainage to the new top of slope. This area will be topped with class 'A' gravel gently sloping towards the new filter stone protected shoreline of the harbour basin.
- Dredging of the harbour basin of the new marina development to -2.00 m below L.N.T. The approximate footprint of the dredging area will be 4540 m². The dredge material will be disposed of as appropriate, dependent on the results of its chemical analysis, but likely at an approved landfill site or utilized on the upland portion of the site. Construction debris will be disposed of appropriately as per regulatory approvals.

The most probable sources of potential pollutants are related to the use of heavy equipment. Accidental spills of heavy equipment fuel, engine oil, and

hydraulic fluids are a possibility. Short-term sedimentation as a result of dredging and the placement of rock material into the marine environment can also be anticipated. Mitigation measures will be utilized to minimize potential interactions with the environment.

4.4 Operation:

Routine maintenance and repair projects will be carried out on an as- required basis over the estimated thirty (30) year life of the structure.

The proposed undertaking represents an enhancement of the existing DFO-SCH facilities in Port Blandford, NL.

Reasonably foreseeable pollutants occurring during the operational phase of the proposed project are limited to accidental discharges of vessel fuels and engine oils. The Environmental Management System (EMS) with an integrated Environmental Management Plan (EMP) for the Harbour Authority of Port Blandford will cover operational aspects of environmental management and is the mitigation measure for the environmentally responsible aspects of harbour operation (fuelling, waste disposal, activities on the property and water).

Potential resource conflicts are not anticipated as a result of the operation of the proposed project.

4.5 Occupations:

Construction of the marina is expected to require 8 months to complete. Commencement of the proposed project is scheduled for late November or early December 2018.

The following list outlines occupations which may be employed during the design and construction period. Please note that this list represents only an approximation of the number and type of occupations that may be produced as a result of the proposed project. Actual occupations created as a result of the proposed project will ultimately be determined by the successful contractor. Occupations are expected to be comparable to those created for similar construction projects throughout the Province.

- 2–Professional Engineers - 0211 - entire project
- 2–Engineering Techs - 2231 - entire project
- 1–Surveyors - (1)-2113 and (1)-2154 - construction only
- 1–Rod and Chainmen - 7612 - construction only
- 1–Construction Inspector - 2264 - construction only
- 1–Draftsperson - 2253 - 2 months work
- 1–Secretary - 1241 - entire project
- 6–Labourers - 7217 - construction only
- 2–Heavy Equipment Operators - 7217 - construction only

- 5–Truck Drivers - 7217 - construction only
- 1–Flag Person - 7611 - construction only
- 2–Office Clerk - 1211 - 1 for construction and 1 for engineering
- 1–Construction Foremen/Superintendents - 7217 - construction only

5.0 APPROVAL OF THE UNDERTAKING:

The following is a list of the likely permits, licences and approvals required for this project.

Approvals/Certificates/Permits	Regulatory Authority
NL Environmental Assessment Registration ⁽¹⁾	NL Department of Municipal Affairs and Environment, Environmental Assessment Division
DFO–Request For Review (Serious Harm Determination; Aquatic Species At Risk) ⁽²⁾	Fisheries and Oceans Canada, Fisheries Protection Program
Permit to Alter a Body of Water ⁽³⁾	NL Department of Municipal Affairs and Environment, Water Resources Division
Navigation Protection Act Approval ⁽⁴⁾	Transport Canada
Quarry Permit ⁽⁵⁾	NL Department of Natural Resources

Notes: (1) This document; provincial permits are expected to be issued following release from further environmental assessment.

(2) An application has been made to DFO – Fisheries Protection Program to determine if the Project as described herein would avoid Serious Harm to fish by following standard mitigations. Application in progress.

(3) Application in progress, submission anticipated to occur following submission of the EA Registration. There is an existing permit (Permit # ALT8600-2017) in place for DFO-SCH to conduct minor dredging as part of facilities management for small craft harbours.

(4) An application has been made to Transport Canada for this approval.

(5) It is anticipated that the material will be sourced from existing licenced quarries operating in the region of the Project.

6.0 ABORIGINAL CONSULTATION:

Aboriginal fishers are not known to utilize the Port Blandford SCH facility, nor are there any known aboriginal groups in the surrounding area. As such, aboriginal consultation was not deemed necessary as part of this determination.

7.0 SCHEDULE:

The proposed project is expected to commence in late November or early December 2018 and construction would occur over an eight month period.

8.0 FUNDING:

The total cost estimate for all phases of the proposed project, as provided by the proponent, is approximately \$1.35 million. Funds will be provided by Small Craft Harbours Branch, Fisheries and Oceans Canada.

A handwritten signature in blue ink that reads "Cathy Martin".

October 26, 2018
Date

Environmental Assessment Representative

APPENDIX A

TOPO MAP

SITE PLAN

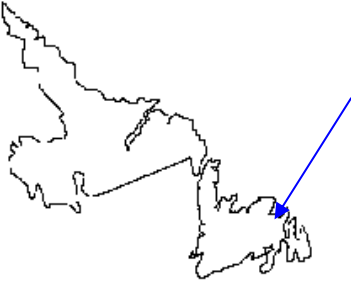


Figure 1: Topographic Map of Proposed Site

Location: Port Blandford

NTS Mapsheet 02-D-08 – Port Blandford

Scale 1:50,000

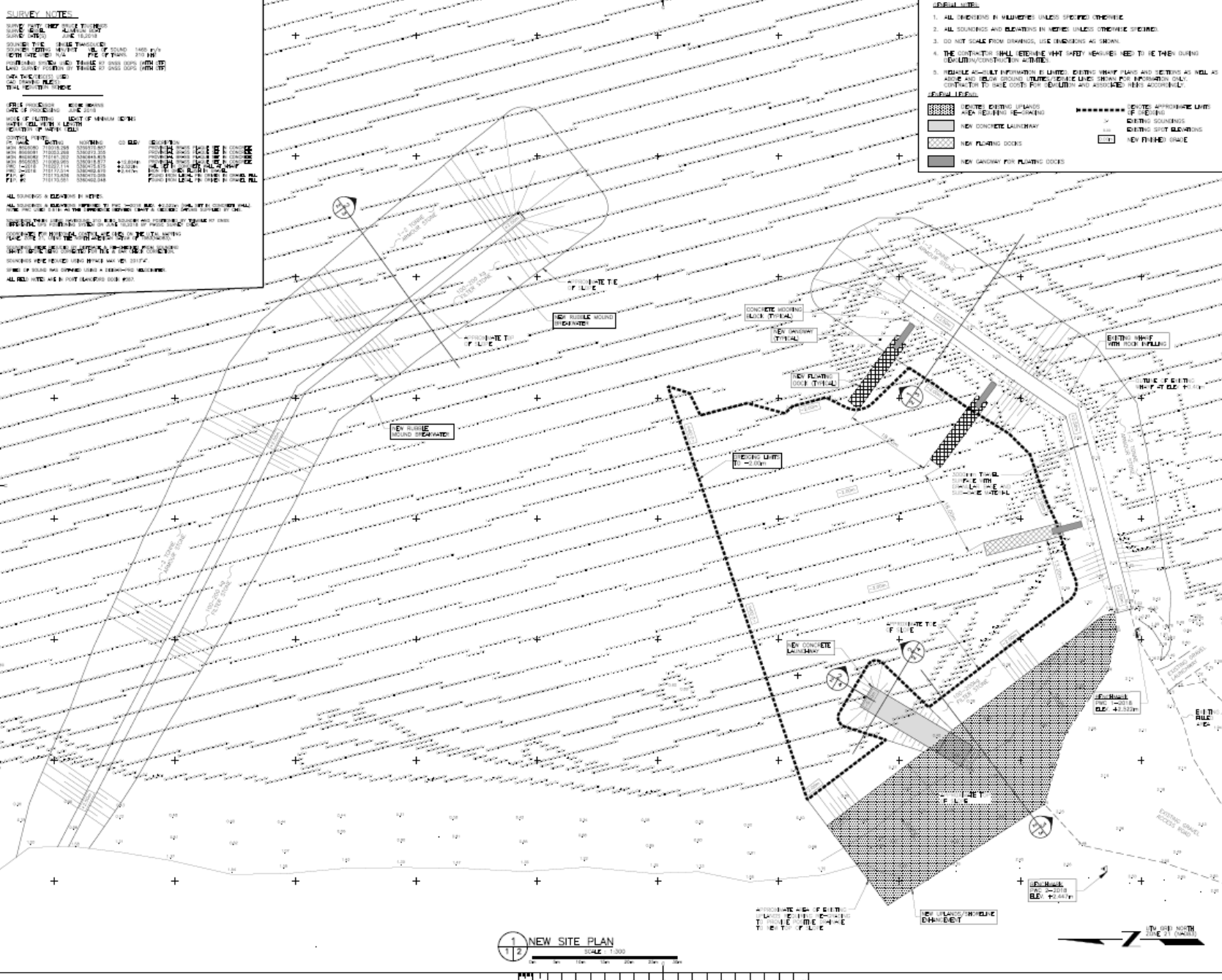


SURVEY NOTES

DATE OF SURVEY: 14/07/2016
 DATE OF REVISION: 14/07/2016
 SURVEYOR: [Name]
 CLIENT: [Name]
 PROJECT: [Name]

ALL SOUNDINGS & ELEVATIONS IN METERS UNLESS OTHERWISE STATED.
 ALL DIMENSIONS & ELEVATIONS IN METERS UNLESS OTHERWISE STATED.
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- GENERAL NOTES**
1. ALL DIMENSIONS & ELEVATIONS IN METERS UNLESS OTHERWISE STATED.
 2. ALL SOUNDINGS & ELEVATIONS IN METERS UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM DRAWINGS, USE DIMENSIONS AS SHOWN.
 4. THE CONTRACTOR SHALL VERIFY THE WHOLE SITE BEFORE COMMENCING WORKS.
 5. PROVIDE AS-BUILT INFORMATION IN LIMITED EXISTING WHAT PLANS AND DETAILS AS WELL AS ABOVE AND BELOW GROUND UTILITIES WHERE LAND TAKEN FOR INFORMATION ONLY. CONTRACTOR TO TAKE COSTS FOR RELOCATION AND ASSURANCE REIMS ACCOUNTING.
- LEGEND**
- EXISTING EXISTING UPRAISED AREA REFINISH RE-GRADING
 - NEW CONCRETE LAUNDRARY
 - NEW PLANTING DOCKS
 - NEW GANGWAY FOR PLANTING DOCKS
 - EXISTING APPROXIMATE LIMIT OF STREETS
 - EXISTING SOUNDINGS
 - EXISTING SPOT ELEVATIONS
 - NEW FINISH GRADE



NO.	REVISION	DATE	BY
0	ISSUED FOR 33% REVIEW	14/07/2016	[Name]
1	ISSUED FOR 33% REVIEW	14/07/2016	[Name]

NO.	REVISION	DATE	BY
0	ISSUED FOR 33% REVIEW	14/07/2016	[Name]
1	ISSUED FOR 33% REVIEW	14/07/2016	[Name]

**MARINA DEVELOPMENT
 PORT BLANDFORD, NL**

NEW SITE PLAN

DATE: 14/07/2016
 BY: [Name]
 DATE: 14/07/2016
 BY: [Name]

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