Fisheries and Oceans Canada | Pêches et Océans Canada

P.O. Box 5667
St. John's, NL
A1C 5X1

July 15, 2021

Your file *Votre référence*

Our file *Notre référence*

21-HNFL-00348

Regional Engineer, Small Craft Harbours
North Atlantic Fisheries Center
80 East White Hills Road, St. John's, NL A1C 5X1

Attention: Mr. Paul Curran, P. Eng.

Subject: Re: Marginal Wharf Replacement, Grand Bank, NL – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat

Dear Mr. Curran:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on July 5th, 2021. We understand that you propose to:

- Remove and demolish a marginal wharf consisting of concrete encased piles, and construct a replacement wharf (~ 103m long by 9m wide) with concrete filled steel pipe piles within the same footprint as the existing wharf;
- The piles will likely be placed individually using a pile driver/vibratory hammer;
- A concrete retaining wall will extend along the back of the wharf to retain fill behind the structure and rip rap will be placed on the slope of the seafloor under the wharf to help with erosion;
- The project will be carried out using heavy equipment such as excavators, dump trucks, cranes, barges and loaders; and
- This is the second phase of reconstruction for the wharf; phase 1 was completed in 2016 (16-HNFL-00460).

Our review considered the following information:

- Request for Review, site photo and engineering diagrams received on July 5th, 2021 (C. Martin to N. Collins);
- Supporting information received by email July 15th, 2021 (M. McNeil to C. Andrews).

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*; and
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.; and
- The introduction of aquatic species into regions or bodies of water frequented by fish where they are not indigenous, which is prohibited under section 10 of the *Aquatic Invasive Species Regulations*.

The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), we recommend implementing the measures listed below:

- Avoid carrying out in-water works in estuaries and main stems of scheduled salmon rivers from May 1 to September 30 (migration period); Atlantic salmon are known to congregate and stay for extended periods in Grand Bank harbour depending on river flow conditions.
- Limit the duration of in-water works to only activity related to the above noted project elements so that it does not diminish the ability of fish to carry out one or more of their life processes (spawning, rearing, feeding, migrating);
- Conduct in-water undertakings and activities during periods of low flow, low tide and low wind/wave conditions;
- No temporary or permanent increase in existing footprint below the high water mark;
- Implement erosion and sedimentation controls as needed to avoid the introduction of sediment into any waterbody during all phases of work
    - Install effective erosion and sediment control measures prior to beginning work in order to stabilize all erodible areas;
    - Regularly inspect and maintain the erosion and sediment control measures and structures during all phases of the project;
    - Regularly monitor the watercourse for signs of sedimentation during all phases of the project and take corrective action;
    - Keep the erosion and sediment control measures in place until all disturbed ground has been permanently stabilized;
    - Remove all exposed, non-biodegradable sediment control materials once the site is stabilized;
    - Schedule work to avoid wet, windy, and rainy periods that may result in high flow volumes and/or increase erosion and sedimentation;
- Operate machinery on land in stable dry areas, or from stable floating platforms;

- All materials placed in or near water should be clean and free of fines, concrete or any other deleterious substance and of sufficient size to resist displacement by wave action;
- Armour stone should be blocky, angular shape and comprised of mixed gradation so that the smaller rock fill the voids between the larger rock to provide compaction and stability;
- Rock material should not be end dumped; rather, it should be placed on station using an excavator or similar equipment;
- When works are completed, shoreline and approaches should be restored to original condition;
- Immediately before, and during, pile driving, a bubble curtain (air compressor discharge lines or similar equipment) should be used to scare mobile fin fish from the area immediately adjacent to the pile driving activity and disrupt shock waves generated during pile driving; and
- Be aware of AIS species in the area and take precautions with respect to any vessel traffic and gear movement between affected and unaffected areas to prevent introductions and spread (https://www.dfo-mpo.gc.ca/species-especes/ais-eae/index-eng.html):
    - All equipment used in water should be cleaned, drained and dried on land before and after use for the purposes of preventing the introduction or spread of aquatic invasive/non-indigenous species; and
    - Report any AIS and non-indigenous species to DFO at 1-855-862-1815 or AISEAE.XNFL@dfo-mpo.gc.ca.

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations.*

It is also your *Duty to Notify* DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to (http://www.dfo-mpo.gc.ca/pnw-ppe/contact-eng.html).

We recommend that you notify this office and the nearest Conservation and Protection (C&P) office at least 10 days before starting your project and that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

If you have any questions with the content of this letter, please contact Jack O'Rourke by cell at (709) 725-1286, by fax at (709) 772-5562, or by email at John.ORourke@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

John O'Rourke
Senior Biologist – Hydro, Flows & Linear Development
Regulatory Review, Fish and Fish Habitat Protection Program

CC: Ms. Cathy Martin, Environmental Services, PWGSC

FISHERIES AND OCEANS
CANADIAN ENVIRONMENTAL ASSESSMENT ACT (CEAA) 2012
PROJECT EFFECTS DETERMINATION REPORT

GENERAL INFORMATION

1. Project Title: Marginal Wharf Reconstruction, Grand Bank, NL	
2 Proponent: Fisheries and Oceans Canada, Small Craft Harbours (DFO SCH)	
3. Other Contacts (Other Proponent, Consultant or Contractor): Public Works and Government Services Canada	**4. Role:** OGD Consultant
5. Source of Project Information: Paul Curran, Chief Engineer, DFO SCH Branch	
6. Project Review Start Date: August 8, 2016	
7. DFO File No.:	**8. PWGSC File No:**
9. TC File No.: 8200-10-1085 / NEATS: 43267	

BACKGROUND

10. Background about Proposed Development (including a description of the proposed development):

DFO SCH are proposing to reconstruct an existing wharf at Grand Bank, NL (Appendix A), and will involve the replacement of an existing marginal pile wharf with a fixed crib structure. It has been estimated that the project will involve the dredging of approximately 3,500 m^3 of harbour material. The existing bottom will require excavation to facilitate installation of the crib work. The Project area is within the proximity of a salmon river, an active fish plant and historical buildings.

PROJECT REVIEW

11. DFO's rationale for the project review:

Project is on federal land ☒ and;

- ☒ DFO is the proponent
- ☐ DFO to issue *Fisheries Act* Authorization or *Species at Risk Act* Permit
- ☐ DFO to provide financial assistance to another party to enable the project to proceed
- ☐ DFO to lease or sell federal land to enable the project to proceed
- ☐ Other

12. Fisheries Act Sections (if applicable): n/a

13. Other Authorities	**14. Other Authorities rationale for involvement:**
Transport Canada, Navigation Protection Program and Environmental Affairs and Aboriginal Consultation Unit	*Navigation Protection Act*

15. Other Jurisdiction:

Service NL

NL Department of Environment and Conservation, Water Resources

16. Other Expert Departments Providing Advice:	**17. Areas of Interest of Expert Departments:**
Fisheries and Oceans Canada, Fisheries Protection Program	*Fisheries Act*

18. Other Contacts and Responses:

19. Scope of Project (details of the project subject to review):

Project Description

Construction/Installation:

The project scope of work includes:

- Excavation of uplands and demolition / dismantling of an old marginal wharf structure in the project footprint;
- Construction of a 270 m long x 6.5 m wide treated timber cribwork marginal wharf consisting of about 44 cribs (measuring 6.1 m in length). See Site Plan in Appendix B.

The construction will require dredging/removal of any bottom sediment material necessary to accommodate crib seat placement. The material will be disposed of as appropriate dependant on the results of the sediment/dredging analysis, but likely at an approved landfill site. Construction debris will be disposed of appropriately as per regulatory approvals.

Operation

The Environmental Management System (EMS) with an integrated Environmental Management Plan (EMP) for the Harbour Authority of Grand Bank will cover operational aspects of environmental management and mitigation measures for the environmentally responsible aspects of harbour operation (fuelling, waste disposal, activities on the property and water).

Decommissioning

This facility is not presently planned to be decommissioned. At the time of decommissioning, Small Craft Harbours will develop a site-specific re-use or reclamation plan that is appropriate for the applicable environmental legislation and Fisheries and Oceans Canada policies.

Scheduling

Commencement of this project is subject to DFO SCH operational priorities and funding, as well as regulatory approval, but construction is likely to start late fall 2016.

20. Location of Project:

The town of Grand Bank, NL, has a population of approximately 2,580 people and is located on the Northwest coast of the Burin Peninsula. The project is located at UTM Zone 21, 594772E and 5217129N. The project site can be accessed via Route 210 into Grand Bank. Turn right onto Marine Dr. and follow until it turns into Water Street which goes right past the wharf.

21. Environment Description:

Physical Environment

Physical Environment:

The immediate project site is a commercial and residential harbour consisting of a marginal wharf. The surrounding shoreline is characterized primarily by exposed bedrock and pebble-cobble material. A project area such as this would typically contain a large amount of fines due to the proximity of the estuary and the deposition of fines. The SCH site in Grand Bank is also located at the mouth of a known salmon river, the Grand Bank Brook. In the area surrounding the proposed project, there is limited aquatic and terrestrial vegetation.

The project site is located within the Maritime Barrens Ecoregion. This ecoregion spans the majority of the southern coast of Newfoundland and is characterized by the coldest summers with frequent fog and strong winds. Winters are relatively mild with intermittent snow cover particularly near the coastline. Annual precipitation exceeds 1,250 mm. The landscape pattern consists of usually stunted, almost pure stands of Balsam Fir, broken by extensive open heathland. Good forest growth is localized on long slopes of a few protected valleys.

Grand Bank is within the distributional range of the Blue Whale (Atlantic population), the North Atlantic Right Whale, the Harlequin Duck (Eastern population), the Red Crossbill (percna subspecies) and the Monarch Butterfly, all placed on Schedule 1 of the Species at Risk Act 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 any of the listed Species at Risk.

22. Scope of Effects Considered (sections 5(1) and 5(2)):

Table 1: Potential Project / Environment Interactions Matrix

	As per Section 5(1)			Section 5(1c) Aboriginal Interest				Section 5(2)			Due Diligence			
Project Phase / Physical Work/Activity	*Fish (Fisheries Act)*	*Aquatic Species (SARA)*	*Birds (MBCA)*	*Health and Socio economic*	*Physical and cultural heritage*	*Land use*	**HAPA Significance*	*Health and Socio economic*	*Physical and cultural heritage*	**HAPA Significance*	*Water (ground, surface, drainage, etc)*	*Terrestrial / Aquatic Species*	*Soil*	*Air Quality*
Construction/Installation														
Wharf Demolition	P	-	-	-	-	-	-	P	-	-	P	P	P	P
Wharf reconstruction	P	-	-	-	-	-	-	P	-	-	P	P	-	P
Dredging / sediment removal for crib seating	P	-	-	-	-	-	-	P	-	-	P	P	P	P
Operation / Maintenance	P	-	-	-	-	-	-	-	-	-	P	-	-	-
Decommissioning / Abandonment	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**structure, site or thing that is of historical, archaeological, paleontological or architectural significance.*
Legend: P = Potential Effect of Project on Environment; '-' = No Interaction

Navigation Consideration

Environmental effects of the project on navigation are taken into consideration as part of the environmental assessment only when the effects are indirect, *i.e.* resulting from a change in the environment affecting navigation. Direct effects on navigation are not considered in the environmental assessment, but any measures necessary to mitigate direct effects will be included as conditions of the *Navigation Protection Act* approval.

☒ Only direct effects are identified; therefore the effects of the project on navigation are not addressed in this environmental assessment.

☐ Indirect effects were identified and have been addressed in this environmental assessment.

23. Environmental Effects of Project:

Potential Project/Environment Interactions and their effects are outlined below:

Fish:

- Sedimentation as a result of wharf demolition, and reconstruction may negatively impact fish and quality of potential fish habitat at the immediate project site.
- Accidental discharge of heavy machinery fuel/fluids or hazardous substances could negatively impact fish and potential fish habitat.
- Dredging at the site will destroy potential fish habitat within project footprint.

Health and Socio economic:

- Potential for safety hazards to workers during demolition and construction activities

Water:

- Sedimentation as a result of wharf preparation, construction and upland development may negatively impact marine water quality at the immediate project site.
- Construction related refuse may be deposited in water-body, decreasing marine water quality.
- Accidental discharge of heavy machinery fuel/fluids or hazardous substances (e.g. concrete washwater) may result in a decrease of marine water quality.
- Dredging activities resulting in a sedimentation event within the water column.

Aquatic species:

- Sedimentation as a result of preparation and construction may negatively impact aquatic species present at the immediate project site.
- Accidental discharge of heavy machinery fuel/fluids or hazardous substances (e.g. concrete washwater) could negatively affect aquatic species present at the immediate project site.
- Dredging / sediment removal and reconstruction at the site will destroy potential fish habitat within the project footprint.

Soil:

- Improper transport / disposal of dredge spoils and demolition timber may result in contamination of soils.
- Project activities could potentially result in soil contamination due to improper disposal of dredge material or to some type of mechanical malfunction resulting in a hydrocarbon spill.
- Exposed soils and stockpiled dredge spoils may erode.

Air quality:

- Construction activities may result in nuisance impacts due to noise and dust.
- Improper storage/disposal of dredge spoils may result in unpleasant odours and provide annoyance to facility users and nearby residents.

24. Mitigation Measures for Project (including Habitat Compensation):

- Minimize duration of in-water work wherever possible;
- Schedule work to avoid wet, windy and rainy periods that may increase erosion and sedimentation;
- The proposed activities must be carried out in such a manner that sediment, and/or other construction related materials do not enter the watercourse;
- The operation of heavy equipment should be from dry, stable shore locations;
- Activities planned near water should ensure that materials such as paint, primers, solvents, degreasers, concrete or other chemicals do not enter the watercourse;
- All vehicles and equipment must be clean and in good repair, free of mud, fuel and oil or other harmful substances that could impair water quality;
- Armourstone material should be clean, quarry run material and must not be removed from intertidal areas;
- Cribbing ballast should be, to the greatest extent possible, free of fine grained materials to help minimize sedimentation of the waterbody and must not be obtained from below the highwater mark;
- To the extent possible, the proposed work should be carried out during low tide and low wind / wave conditions to minimize turbidity and to minimize the area that might be affected by turbidity;
- Oil spill response equipment, such as absorbents and open-ended barrels should be available on-site in case of a spill or leak. All spills or leaks should be promptly contained, cleaned up and reported to the 24-hour environmental emergencies report system (1-800-563-2444);
- Develop a response plan that is to be implemented immediately in the event of a sediment release or spill of a deleterious substance and keep an emergency spill kit on site;
- Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water. Waste materials should not be deposited in the tidal waters;
- Ensure that construction materials used in a watercourse has been handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious to fish;
- Dredged material from the existing bottom is to be disposed of at an approved waste disposal site, pending prior approval from the site owner/operator;
- Remove all construction materials from site upon project completion;
- As part of this projects pre-planning process, several sediment samples were collected from the proposed target dredge area. The material will be disposed of as appropriate dependent on the results of the sediment analysis, but likely at an approved landfill site or utilized on the uplands;
- To avoid accidental spillage of dredge spoils during transportation, it is recommended that dump trucks be equipped with a leak proof liner or a tailgate gasket;
- Removal of potentially hazardous materials from on-site structures slated for demolition should be completed by qualified individuals, pursuant to applicable health and safety regulations;

- Any hazardous materials produced as a result of this project are to be transported off-site for disposal/treatment at an approved waste handling facility, pursuant to applicable provincial and federal regulations/legislation;
- No explosives are expected during this project;
- Workers in contact with hazardous materials (e.g. wastes) must be provided with and use appropriate personal protective equipment;
- Proper safety procedures must be followed during the duration of the project as per applicable municipal, provincial, and federal regulations;
- Employees will be trained in health and safety protocols (e.g. safe work practices, emergency response).

25. Significance of Adverse Environmental Effects of project:

Significant adverse environmental effects are unlikely, taking into account mitigation measures.

26. Other Considerations (Public Consultation, Aboriginal Consultation, Follow-up)

Public Consultation

The proposed project will provide safer and more secure access for vessels utilizing this facility. No negative public concern is expected as a result of this project. As such, public consultation was not deemed necessary as part of this determination.

Aboriginal Consultation

Aboriginal fishers are not known to utilize the Grand Bank 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.

Government Consultation

Federal and provincial authorities likely to have an interest in the project were consulted by Public Works & Government Services Canada, Environmental Services, during the course of this assessment. A project description was distributed to the following authorities:

- Fisheries and Oceans Canada – Fisheries Protection Program (DFO FPP)
- Transport Canada – Environmental Affairs and Aboriginal Consultation Unit (TCEA) and the Navigation Protection Program (TC NPP)
- Service NL
- NL Department of Environment and Conservation, Water Resources (NLDOEC WR)

Mitigations prescribed by DFO FPP have been incorporated into this report and may also be found in Appendix C. It is the proponents' responsibility to ensure that appropriate mitigation measures are adhered to.

A subsection 9 (1) approval may be issued by TC NPP under the *Navigation Protection Act*. Conditions stipulated in the approval document must be adhered to.

Service NL have provided approval (Appendix C) for dredge spoils to be disposed of at an approved landfill facility, pending prior approval from the site owner/operator.

NLDOEC issued a Permit to Alter a Body of Water (Appendix C) for the proposed dredging component of the project.

All expert advice/specialist information provided by the above noted departments has been incorporated into this document.

Accuracy and Compliance Monitoring

A follow-up program (as defined in S. 2(1) and as applicable to non-designated projects on federal lands) is a program for determining the effectiveness of any mitigation measures. Site monitoring (accuracy and compliance monitoring) may be conducted to verify whether required mitigation measures were implemented. The proponent must provide site access to Responsible Authority officials and/or its agents upon request.

27. Other Monitoring and Compliance Requirements (e.g. *Fisheries Act* or *Species at Risk Act* requirements)

n/a

CONCLUSION

28. Conclusion on Significance of Adverse Environmental Effects:

The Federal Authorities have evaluated the project in accordance with Section 67 of *Canadian Environmental Assessment Act (CEAA), 2012*. On the basis of this evaluation, the departments have determined that the project is not likely to cause significant adverse environmental effects with mitigation and therefore can proceed using mitigative measures as outlined.

29. Prepared by: Cathy Martin **30. Date:** November 17, 2016

31. Name: Cathy Martin

32. Title: Environmental Specialist, PWGSC-ES

DECISION

33. Decision Taken

☒ DFO may exercise its power, duty or function, i.e. may issue the authorization - where the project is not likely to cause significant adverse environmental effects. Confirm below the specific power, duty or function that may be exercised.

- ☐ DFO to issue *Fisheries Act* Authorization or *Species at Risk Act* Permit
- ☒ DFO to proceed with project (as proponent)
- ☐ DFO to provide financial assistance for project to proceed
- ☐ DFO to provide federal land for project to proceed

☐ DFO has decided not to exercise its power, duty or function because the project is likely to cause significant adverse environmental effects.

☐ DFO to ask the Governor in Council to determine if the significant adverse environmental effects are justified in the circumstances

34. Approved by: Paul Curran **35. Date:** Nov 27/16

36. Name: Paul Curran

37. Title: Regional Engineer, DFO-SCH, NL

38. References: n/a

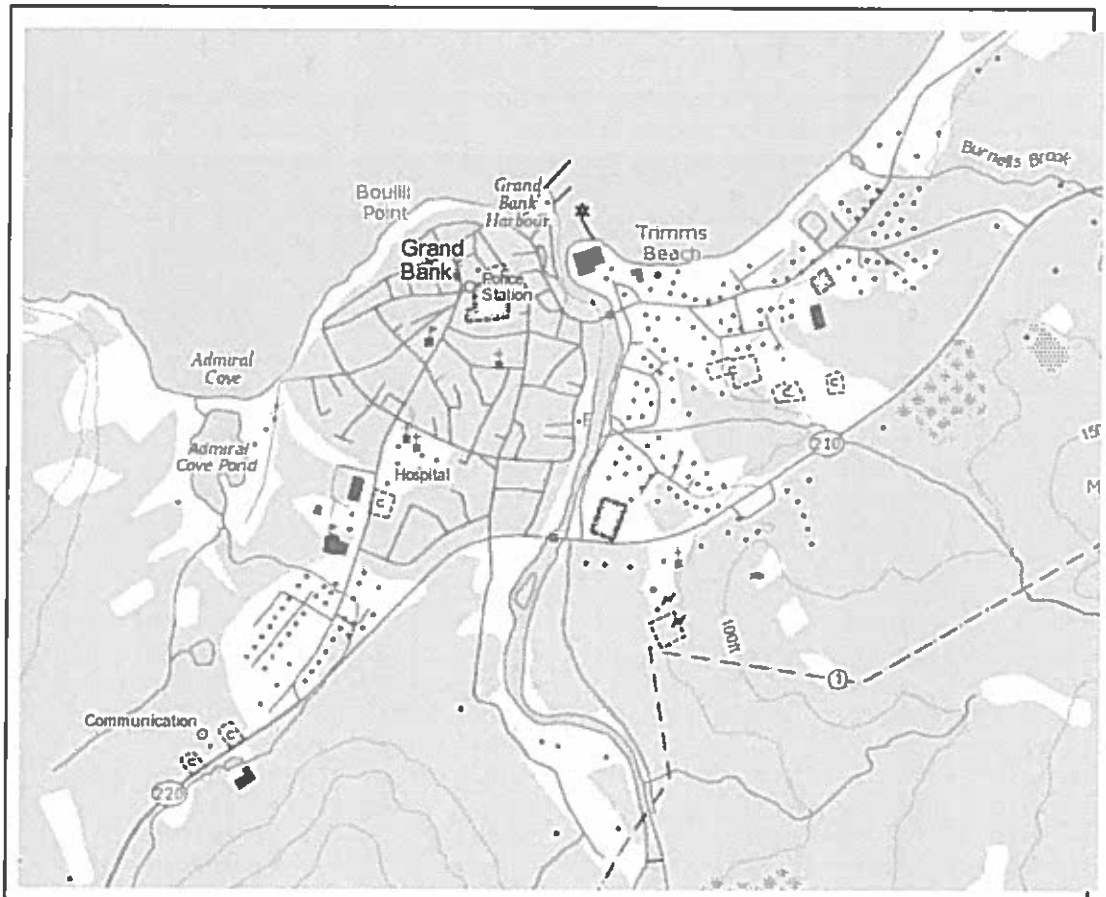
39. TRANSPORT CANADA RECOMMENDATION

Project Title:	Marginal Wharf Reconstruction, Grand Bank, NL	
TC File No.:	NEATS: 43267	
NPP File No.:	8200-10-1085	
Environmental Review Decision:	Taking into account the implementation of any mitigation measures that Transport Canada considers appropriate, the project **is not likely** to cause significant adverse environmental effects and, as such, Transport Canada may exercise any power or perform any duty or function that would permit the project to be carried out in whole or in part.	
Prepared by:	**Melissa Ginn** Environmental Officer Environmental Affairs and Aboriginal Consultation Unit	
Signature:		**Date:** November 25, 2016
Mailing Address:	10 Barter's Hill, St. John's, NL	
Tel:	709-351-3200 / 709-772-3088	
Fax:	709-772-3072	
Email:	melissa.ginn@tc.gc.ca	
Recommended by:	**J. Jason Flanagan** Senior Environmental Assessment Officer Environmental Affairs and Aboriginal Consultation Unit	
Signature:		**Date:** November 28, 2016
Approved by:	**Kevin LeBlanc** Regional Manager Environmental Affairs and Aboriginal Consultation Unit	
Signature:		**Date:** December 1, 2016

APPENDICES

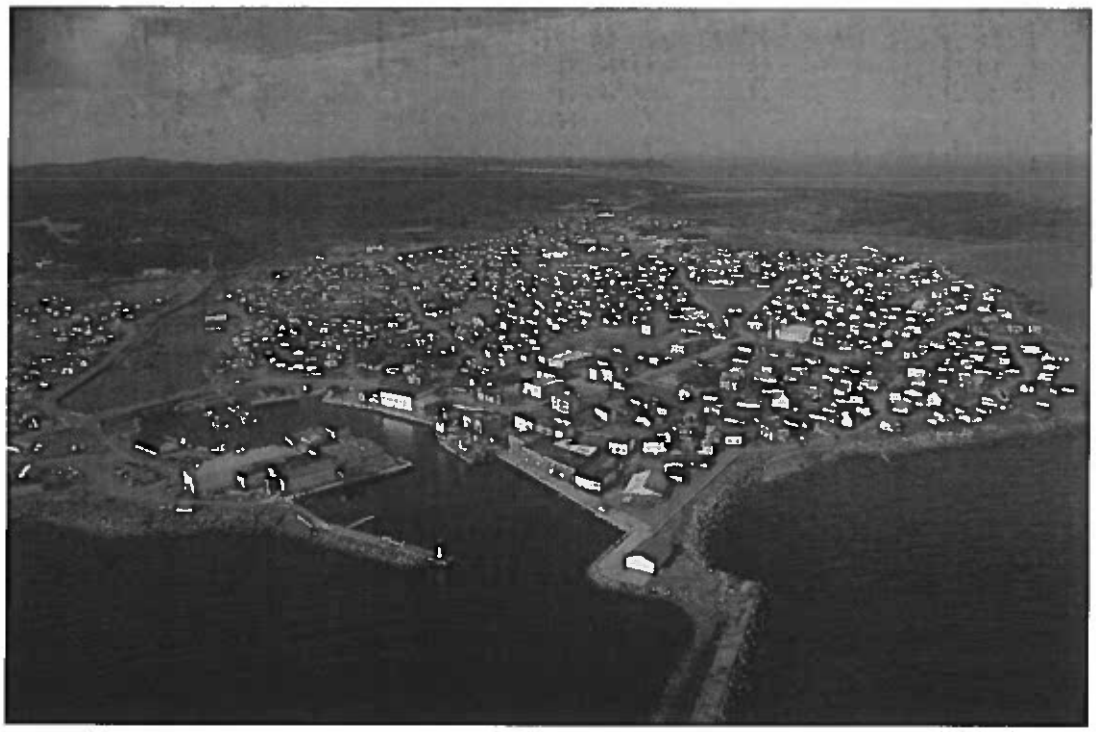
Appendix A - Topographic Map and Aerial Photographs
Appendix B: Site Plan
Appendix C: Regulatory approvals/responses

Appendix A
Topographic Map and Aerial Photo



Description

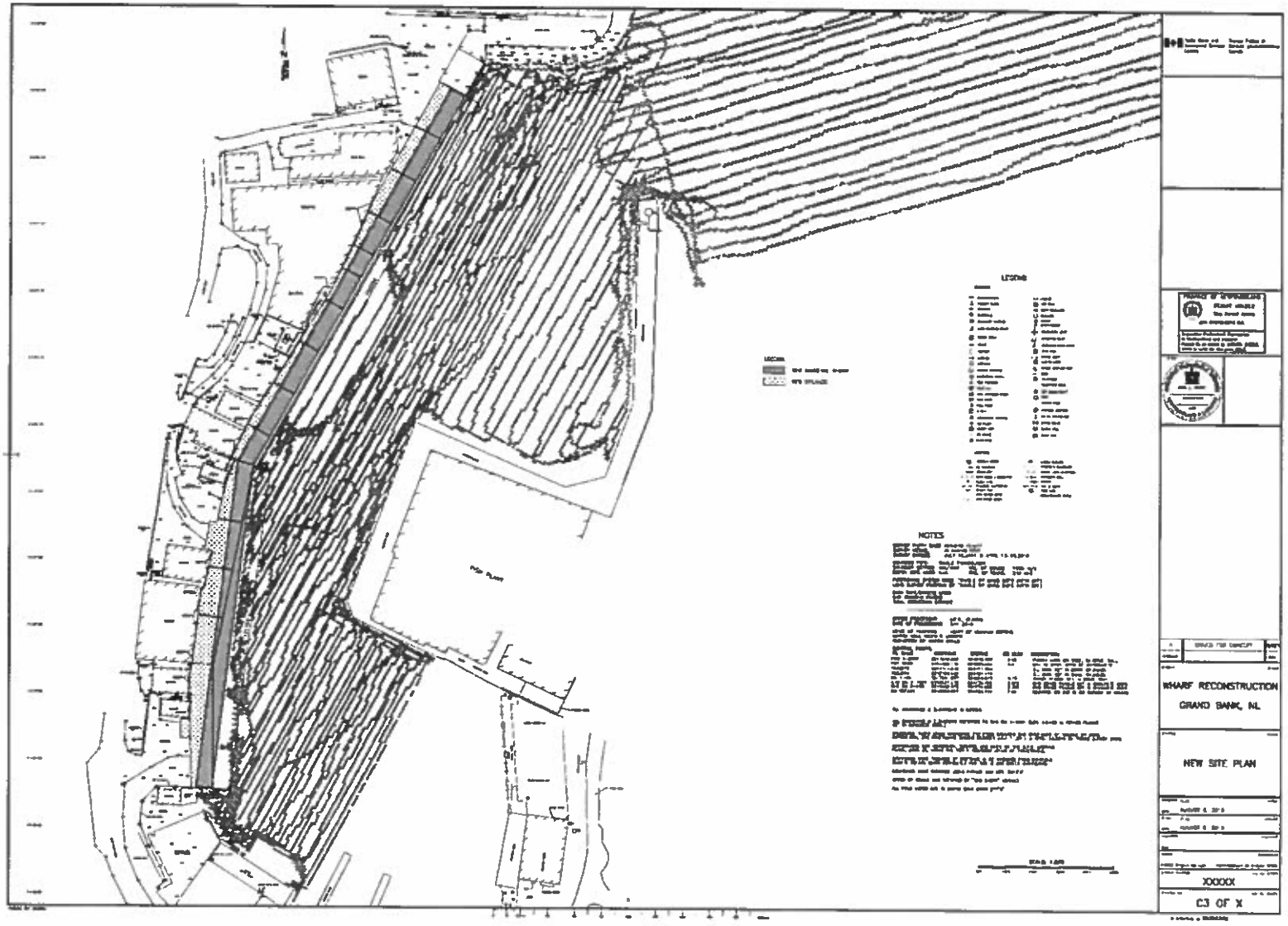
Appendix A-1
Topographic Map of Proposed Site
Location: Grand Bank, NL



Appendix A-2: Aerial Photo indicating site of wharf reconstruction (photo courtesy of DFO, 2010)

Appendix A-3: Photo indicating proposed wharf reconstruction (yellow).

Appendix B
Site Plan of proposed project



Appendix B-1: Site Plan indicating proposed marginal wharf reconstruction

Appendix C
Regulatory approvals/responses