

ANNEX A

Memorandum of environmental conditions and recommended mitigations



Project Conditions

1. The valid Fisheries Act authorization period for this project is April 20, 2010 to January 30, 2015. Work must be completed between these dates.
2. Work shall be carried out as per the approved plans only. Any additional work not specifically identified in the attached Fisheries Act authorization document is not permitted.
3. A 2 metre wide band (substrate buffer) of variable appropriately-sized substrate (small boulder 250-500 mm; rock 130-255 mm; cobble 65-130 mm) shall be placed around the perimeter of breakwater scour protection which shall provide 490.3 square metres of compensatory habitat.
4. A "Notice to Shipping" shall be issued 10 days prior to the commencement of project activities and again upon completion of the work to alert vessel operators in the area. The Canadian Coast Guard's Marine Communications and Traffic Services (MCTS) Centre can be contacted by telephone (709) 772-5578 to arrange this.
5. Vessels shall be allowed safe access through the work site at all times and shall be assisted as necessary.
6. Any floating debris resulting from construction activities must be contained to the project site and promptly removed when appropriate to do so.
7. The proponent is to contact the Canadian Coast Guard Level of Service Office (709) 772-5603 or 772-3192 when work commences to arrange to have the existing floating aid moved seaward as the breakwater construction progresses.
8. If the floating aid should be removed or become out of service prior to the installation of the permanent fixed aid referred to in condition #9, a Yellow Cautionary Navigation light shall be installed at the end of the breakwater until the floating aid has been replaced/repared or the port hand light has been installed on the completed breakwater. The yellow light shall flash once every 4 seconds (Flash 0.5 sec., Eclipse 3.5 sec) and be installed on the top of a 2.4 metre high cylindrical mast. If a cautionary buoy is installed a new Notice to Shipping shall be issued.
9. Upon completion of the breakwater a Port Hand (green) Navigation light is to be installed on the outermost seaward leading edge (end) of the breakwater. This aid is to have the following characteristics: Flashing green 45 (0.5 second flash, 3.5 second eclipse) light installed on top of a 2.4 m high cylindrical mast. This "Aid to Navigation" must conform with the Canadian Aids to Navigation System.
10. A written Notice to Mariners must be completed upon completion of the project.



Best Management Practices and Mitigations

1. Rock materials utilized in construction shall not be collected from below the highwater mark or from within water bodies.
2. Affected shorelines and banks shall be stabilized.
3. Appropriate sedimentation control measures on land and in the marine environment shall be utilized where required.
4. Spill kits, containing such items as absorbents capable of retaining or removing oil sheen and waste storage containers will be available on site.
5. Armourstone shall be clean, non-acid generating, free of fine materials and of the appropriate size.
6. Armourstone shall be placed progressively to minimize shoreline erosion and prevent the loss of shoreline materials (infill, soils, etc).
7. All heavy equipment and vehicles shall be clean, in good repair and free from leaks. No refueling or repairs of equipment shall take place within 30 metres of the marine environment or any water body.
8. Project activities should only be carried out during periods when wind, wave and tide conditions minimize the dispersion of silt and sediment from the work site. The proponent is advised to monitor turbidity plumes to ensure that the extent and duration of sedimentation are within acceptable limits.
9. A copy of regulatory approvals should be kept on-site during project activities.

DFO File No.: BAB 3970-49 BAB-1865-3
Referral File No.: 09-HNFL-NA3-00074
Authorization No.: 18-03-002
Amendment No.: 01 (Jan 30, 2012)

AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT

Authorization issued to:

Breakwater Extension, Finger Pier Extension and Marginal Wharf Construction, La Scie Harbour, NL

Name: Small Craft Harbours
Fisheries and Oceans Canada

Attention: Mr. Paul Curran
Regional Engineer

Address: St. John's
NL A1C 5X1

Telephone: (709) 772-6660

Fax: (709) 772-3765

Location of Project

The proposed project site is located on the northern side of La Scie Harbour, NL at coordinates N 49° 57' 47'' and W 55° 36' 06''.

Valid Authorization Period

The valid authorization period for the harmful alteration, disruption or destruction of fish habitat associated with the work or undertaking is:

From
April 20, 2010

To
January 30, 2015

The valid authorization periods for the other conditions of the authorization are as set out below.

Description of Works or Undertakings

The harmful alteration, disruption or destruction of fish habitat hereby authorized includes the following project components:

- 40 m extension of the existing breakwater;
- 20 m treated timber crib extension to the finger pier wharf;
- 60.6 m by 6.1 m new treated timber crib marginal wharf;
- 1,000 m³ dredging of substrate for placement of the marginal wharf; and
- 400 m² infilling of the marginal wharf approach.

This work will result in the harmful alteration, disruption, or destruction of 3,853 m² of productive fish habitat utilized by young-of-the-year (YOY) and juvenile age classes of Atlantic Cod (*Gadus morhua*) as per the following:

- loss of 2,953 m² of habitat due to the breakwater extension;
 - loss of 350 m² of habitat due to the finger pier wharf extension;
 - loss of 254 m² of habitat due to the dredging for and construction of the marginal wharf; and
 - loss of 296 m² of habitat due to the infilling of the marginal wharf approach.
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Conditions of Authorization

1. Written notification of the commencement of works or undertakings shall be provided to the Area Habitat Biologist - Central, Fisheries and Oceans Canada, 4A Bailey St., Suite 200, Grand Falls-Windsor, NL A2A 2T5, 10 days prior to the initiation of those works or undertakings.
 2. The conditions of this Authorization notwithstanding, should the above works or undertaking, due to weather conditions or other natural conditions, or for any other reason, appear, in the opinion of the Fisheries and Oceans Canada-Habitat Protection Division (DFO-HPD), likely to cause greater impacts than the parties previously contemplated, then DFO-HPD may direct the Proponent, and its agents and contractors, to suspend or alter works and activities associated with the project, to avoid or mitigate adverse impacts to fisheries resources. DFO-HPD may also direct the Proponent and its agents and contractors, to carry out at the Proponent's expense any works or activities deemed necessary by DFO-HPD to avoid or mitigate further adverse impacts to fisheries resources. In circumstances where DFO-HPD is of the view that greater impacts may occur than were contemplated by the parties, DFO-HPD may also modify or rescind this authorization. If the authorization is to be changed, the Proponent will be given an opportunity to discuss any proposed modifications or rescission.
 3. Conditions that relate to the proponent's plan:
 - 3.1. The Proponent, Mr. Paul Curran, Regional Engineer, St. John's, Newfoundland and Labrador, Department of Fisheries and Oceans-Small Craft Harbours (DFO-SCH) confirms that all plans and specifications relating to this Authorization have been duly prepared and reviewed by appropriate professionals working on behalf of DFO-SCH. DFO-SCH acknowledges that it is solely responsible for all design, safety and workmanship aspects of all the works associated with this Authorization.
 - 3.2. The work must comply with the conditions set out in this Authorization. Harmful alteration, disruption or destruction of fish habitat other than that specifically identified within this Authorization is not permitted.
 - 3.3. Works shall be conducted as outlined in the following documents:
 - 3.3.1 *Federal Coordination Regulations Project Description, dated April 20, 2009;*
 - 3.3.2 *Harbour Improvements La Scie, La Scie Harbour, NL Environmental Registration Document, (June 3, 2009);*
 - 3.3.3 *Request for Project Review dated June 4, 2009;*
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- 3.3.4 E-mail 'RE: La Scie.- Harbour Development' (Bearn to Reid) dated July 27, 2009.;
- 3.3.5 Application for Works or Undertakings Affecting Fish Habitat - La Scie Harbour, dated December 18, 2009 (Received by HPD December 29, 2009); and
- 3.3.6 La Scie, Newfoundland and Labrador, Proposed Harbour Development, Marine Fish Habitat Compensation Plan, Final Report (March 17, 2010).
4. Conditions that relate to the mitigation of potential harmful alteration, disruption or destruction of fish habitat. The following measures shall be implemented:
- 4.1. Rock materials utilized in construction shall not be collected from below the high water mark or from within water bodies.
 - 4.2. Affected shorelines and banks shall be stabilized.
 - 4.3. Appropriate sedimentation control measures on land and in the marine environment shall be utilized where required.
 - 4.4. During any infilling the infill material is to be dumped in place and not stored along the shoreline.
 - 4.5. Spill kits, containing such items as absorbents capable of retaining or removing oil sheen and waste storage containers will be available on site.
 - 4.6. Armour stone shall be clean, non-acid generating, free of fine materials, and of the appropriate size.
 - 4.7. Armour stone will be placed progressively to minimize shoreline erosion and prevent the loss of infill material.
 - 4.8. All heavy equipment and vehicles shall be clean, in good repair, and free from leaks. No refueling or repairs of equipment shall take place within 30 m of the marine environment or any water body.
 - 4.9. All concrete formwork will be made either onshore and put in place once dry, or set in place within leak-proof forms in a manner that will prevent fresh concrete or cement paste from leaking into the ocean.
5. Conditions that relate to the compensation for the loss of 3,853 m² of fish habitat:
- 5.1. 5,569 m² shall be created as compensatory fish habitat.
 - 5.2. The compensatory fish habitat described above shall be completed as described more specifically in the document "La Scie, Newfoundland and Labrador, Proposed Harbour Development, Marine Fish Habitat Compensation Plan, dated March 10, 2010, PWGSC Project No. R.001173.001" (hereafter referred to as the habitat compensation plan), prepared by Public Works and Government Services Canada (PWGSC) on behalf of DFO-SCH, dated March 2010 which is attached to this authorization as Schedule A. A generalized summary of the compensation works is as follows:
 - 5.2.1. 4,772 m² of compensatory habitat associated with the breakwater extension via placement of armour stone scour protection below the lowest natural tide level (2,978 m²), placement of a 2 m wide band of variable appropriately-sized substrate along the toe of the breakwater perimeter (490 m²), and the provision of an additional compensatory habitat credit (1,304 m²) via a 5 m edge
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effect associated with the 2 m wide band of placed substrate;

5.2.2.314 m² of compensatory habitat associated with construction of the finger pier via placement of appropriately sized scour protection and additional variable sized substrate below the lowest natural tide level and outward to a total distance of 5 m; and

5.2.3.483 m² of compensatory habitat associated with construction of the marginal wharf and the infill area of the marginal wharf approach via the placement of appropriately sized scour protection and variable sized additional substrate below the lowest natural tide level outward to a total distance of 5 m.

5.3. All fish habitat compensatory works shall be completed concurrent with the construction of individual project components.

5.4. If at any time the Proponent becomes aware that the compensatory habitat is not completed and/or functioning as described in the habitat compensation plan, the Proponent shall carry out any works which are necessary to ensure the compensatory habitat is completed and/or functioning as described in the habitat compensation plan.

5.5. The Proponent confirms that they shall leave the compensatory habitat undisturbed. After the compensatory habitat has been created the Proponent shall not carry on any work or undertaking that will adversely disturb or impact the compensatory habitat.

6. Conditions that relate to the monitoring of the proponent plan, the mitigation and the compensation, the "Monitoring Program".

6.1. The Proponent shall submit to DFO-HPD a Post-Construction Report within two months of completion of individual project components verifying that the individual project components and associated compensation works were completed according to and within the schedule of the proponent plan and habitat compensation plan by summarizing all of the activities associated with the construction by completion of the following:

6.1.1. Provision of all relevant documentation, maps, drawings, photographs and videos (geo-referenced with latitude and longitude in degrees minutes seconds or decimal degrees) indicating the construction and mitigation techniques employed and the structure and position of all compensation works including, but not limited to cross sectional views;

6.1.2. Provision of contingency plans if it was determined that the proposed compensatory habitat structures were not completed as described in the habitat compensation plan and/or the structures required repair/modifications;

6.1.3. Provision of positional and dimensional details (including substrate characteristics) of all enhanced and created habitat compensation areas including, but not limited to locations, lengths, widths and substrate thickness; and

6.1.4. Provision of two printed copies and one digital copy of a comprehensive Post-Construction Report summarizing the informational requirements outlined above (6.1.1, 6.1.2, and 6.1.3).

6.2. The Proponent shall submit a Biological/Structural Monitoring Report to DFO-HPD by October 31 in the years one, two, three, and five, post-construction of each component(s) with respect to the functioning and structural integrity of the compensation works by:

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- 6.2.1. Conducting benthic surveys to identify and quantify marine macroflora and macrofauna species distributions within each compensation area. The surveys shall be consistent with the methodologies outlined in the habitat compensation plan.
- 6.2.2. Provision of details of compensatory habitat functioning and structural integrity by including the following information in each Biological/Structural Monitoring Report:
- 6.2.2.1. verification of the structural integrity of enhanced/created habitat;
 - 6.2.2.2. concise explanations/interpretations of all biological/structural data collected;
 - 6.2.2.3. detailed summations/conclusions describing any tables and graphs;
 - 6.2.2.4. detailed photographs, drawings and videos;
 - 6.2.2.5. a comparison of information from previous years if applicable; and
 - 6.2.2.6. any other relevant information.
- 6.2.3 Ensuring that all raw biological, chemical and physical data stated in the monitoring report is:
- 6.2.3.1 Geo-referenced with latitude and longitude in degrees minutes seconds or decimal degrees format; and
 - 6.2.3.2 Submitted in tabular form such that data can be displayed spatially in a Geographic Information System database (e.g. Excel spreadsheets).
- 6.2.4 Ensuring that monitoring shall be conducted between June 15 and August 01 in each year identified in Section 6.2 above.
- 6.2.5 Provision of a description of contingency measures that were followed if it was determined that the compensatory habitat was not structurally sound or functioning as described in the habitat compensation plan.
- 6.2.6 Two printed copies and one digital copy (e.g., Adobe Acrobat format) of a comprehensive report (a "Biological/Structural Monitoring Report") summarizing the activities associated with the Fish Habitat Compensation Program to DFO-HPD.
- 6.3 All fish habitat compensation documentation shall be submitted to Section Head, Marine Habitat Protection Division, Oceans Habitat and Species at Risk Branch, Fisheries and Oceans Canada, PO Box 5667, St. John's, NL A1C 5X1.
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The holder of this authorization is hereby authorized under the authority of section 35(2) of the Fisheries Act, R.S.C., 1985, c.F. 14, to carry out the work or undertaking described herein. This authorization is valid only with respect to fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

Failure to comply with any condition of this authorization may result in charges being laid under the *Fisheries Act*.

This authorization form should be held on site and work crews should be made familiar with the conditions attached.

Original: April 19, 2010

Date of Issuance:

Amendment-01:

Jan 30/2011

Approved by:



Title:

Michael J. Alexander

Regional Director General

Newfoundland and Labrador Region

Navigable Waters Protection Program
Programme de protection des eaux navigables
P.O. Box 1300 (John Cabot Building)
10 Barter's Hill
St. John's, NL A1C 6H8

Your File Votre référence

Our File Notre référence
8200-09-1091

PRIORITY COURIER

April 30, 2010

Fisheries and Oceans Canada
Small Craft Harbours
1 Regent Square
Corner Brook, NL A2H 7K6

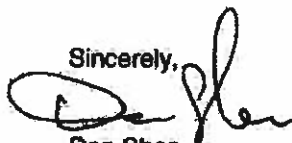
Re.: Application under the *Navigable Waters Protection Act* by Fisheries and Oceans Canada for approval of the Breakwater, Dock and Wharf located at La Scie, in the Province of Newfoundland and Labrador.

Enclosed herewith is an Approval document signed on behalf of the Minister of Transport, Infrastructure and Communities pursuant to subsections 5(1) and (2) of the *Navigable Waters Protection Act* (R.S.C. 1985, c. N-22), as amended by Part 7 of the *Budget Implementation Act*, 2009, S.C. 2009, c. 2.

Please note that the above-referenced project was subject to an environmental assessment under the *Canadian Environmental Assessment Act*. It is your responsibility to ensure that the mitigation measures and follow-up program, if any, be implemented as per the enclosed environmental assessment report.

NOTE: Should you neither start nor finish construction of your work by the dates indicated in your Approval document, it will be necessary to notify this office immediately at (709) 772-7563 or by facsimile transmission at (709) 772-3072 or by e-mail at NWPA-LPEN-NL.TN@tc.gc.ca so that alternate dates may be specified.

Sincerely,

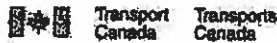


Dan Shea
Manager
Navigable Waters Protection Program
Marine Safety
Transport Canada
Atlantic Newfoundland

fb/ds

Enclosure

c.c. PWGSC, Corner Brook
CHS, St. John's



NAVIGABLE WATERS PROTECTION ACT (R.S.C. 1985, c. N-22) as amended by Part 7 of the *Budget Implementation Act* 2009, S.C. 2009, c. 2 (*Navigable Waters Protection Act*), PART I
Subsections 5(1) and (2) – Substantial Interference

8200-09-1091

Approval

APPLICANT: Fisheries and Oceans Canada
Small Craft Harbours
1 Regent Square
Corner Brook, NL A2H 7K6

WORK: Breakwater, Dock, Wharf

SITE LOCATION: Located at Approximately 49° 57' 47.0" N – 055° 36' 08.0" W, in the waters of La Scie Harbour, La Scie, in the Province of Newfoundland and Labrador

IMPORTANT NOTICE: This document approves the work in terms of its effect on marine navigation under the *Navigable Waters Protection Act*. The work must be built, placed, maintained, operated, used and removed in accordance with the approved plan(s), the *Navigable Waters Protection Act*, its regulations and the terms and conditions in the Approval. It is the applicant's responsibility to obtain any other forms of approval, including building permits, under any applicable laws.

WHEREAS the above-named applicant has made application to the Minister of Transport, Infrastructure and Communities under the *Navigable Waters Protection Act* for approval of the above-described work at the above-referenced site in accordance with the attached plan(s);

WHEREAS it is considered advisable to approve the said work at the said site and plan(s) thereof for a period of 30 (thirty) years pursuant to the Schedule referred to in subsection 3(1) of the *Navigable Waters Works Regulations*.

THEREFORE, the Minister of Transport, Infrastructure and Communities, pursuant to subsections 5(1) and (2) of the *Navigable Waters Protection Act*, hereby approves the said work at the said site and plan(s) thereof for the period of time aforesaid, providing:

1. The construction of the work is started within six (6) months and finished within three (3) years of the approval date.
2. A "Notice to Shipping" is issued ten days prior to the commencement of any work (including any subsequent work), and again upon completion of the work to alert vessel operators in the area. Contact the Canadian Coast Guard's Marine Communications & Traffic Services (MCTS) Centre by telephone at (709)772-5578 to arrange this.
3. The work is carried out in accordance with the approved plans.
4. All dredge material is disposed of above the high-water mark, or at an approved waste disposal site.
5. Any barges and equipment used to carry out the work are visible at all times and are marked in accordance with the Collision Regulations of the Canada Shipping Act.
6. Vessels are allowed safe access through the work site at all times, and are assisted as necessary.

7. Construction material and debris are not permitted to become waterborne. During construction all floating debris must be contained in the immediate area and removed from the water in a timely manner.
8. If a debris containment device is placed in the water it must be marked at 40-meter intervals with 0.4 meter yellow cautionary buoys.
9. The proponent is to contact the Canadian Coast Guard Level of Service Office (772-5688 or 772-3192) when work begins on the breakwater to arrange to have the existing floating aid moved seaward as breakwater construction progresses.
10. If the floating aid should be removed or become out of service prior to the installation of the permanent fixed aid referred to below a Yellow Cautionary Navigation Light shall be installed at the end of the breakwater until the floating aid has been replaced/repaired, or the port hand buoy has been installed on the completed breakwater. The yellow light shall flash once every four seconds (Flash 0.5sec., Eclipse 3.5sec.), and be installed on top of a 2.4m high cylindrical mast. If a cautionary buoy is installed a new Notice to Shipping shall be issued.
11. Upon completion of the breakwater a Port Hand (green) Navigation light is to be installed on the outermost seaward leading edge (end) of the breakwater. This aid is to have the following characteristics: Flashing green 4S (0.5 second flash, 3.5 second eclipse) light installed on top of a 2.4m high cylindrical mast. This "Aid to Navigation" must conform with the Canadian Aids to Navigation System.
12. A written Notice to Mariners must be completed upon completion of the project.
13. As the proposed work will be completely or partially submerged in a navigable water, you are required, once the construction of the work is completed, to provide a Statutory Declaration that the work was built and placed in conformity with the approved plan(s) and site pursuant to the Navigable Waters Protection Act, its regulations and the terms and conditions in the Approval. Therefore, please complete and return the attached Statutory Declaration to the attention of the undersigned.

St. John's, NL

Date: _____

10/05/10



Dan Shea
Manager
Navigable Waters Protection Program
Marine Safety
Transport Canada
Atlantic Newfoundland

for the Minister of Transport, Infrastructure and
Communities

