

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

GENERAL INFORMATION

1. Project Title: Wharf Extension, Dildo South, 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, DFO Small Craft Harbours Branch, Chief Engineer	
6. Project Review Start Date: January 21, 2015	
7. DFO File No.: 15-HNFL-00036	8. PWGSC File No: R.071033.035
9. TC File No.: 8200-04-1368	

BACKGROUND

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

The Department of Fisheries and Oceans Small Craft Harbours Branch proposes to extend an existing finger pier wharf in Dildo South, NL. The existing L-shaped finger pier wharf is in a state of disrepair and can no longer safely meet the requirements of facility users. The proposed wharf reconstruction is required to re-establish safe harbour operations and to provide increased berthage for larger vessels in all weather conditions.

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

Transport Canada, Navigation Protection Program

14. Other Authorities rationale for involvement:

Navigation Protection Act

15. Other Jurisdiction: Service NL

NDOEC Pollution Prevention

<p>16. Other Expert Departments Providing Advice:</p> <p>Fisheries and Oceans Canada, Fisheries Protection Program</p> <p>NDOEC Environmental Assessment Division</p>	<p>17. Areas of Interest of Expert Departments:</p> <p>Fisheries Act</p> <p>Environmental Protection Act</p>
<p>18. Other Contacts and Responses: n/a</p>	
<p>19. Scope of Project (details of the project subject to review):</p> <p><u>Project Description</u></p> <p>The proposed project involves the complete demolition and removal of an existing L-shaped finger pier treated cribwork wharf and construction of a new, larger treated timber cribwork wharf. The existing wharf consists of a stem section measuring approximately 9.2 m wide by 33.8 m long. A gravel approach measuring approximately 6.1 m wide by 15 m long provides access to the wharf. The outer portion of the structure measures approximately 9.3 m wide by 37.5 m long. The wharf will be removed in its entirety using land-based heavy equipment (e.g. excavators and dump trucks). Material suitable for re-use will be recycled where possible. Subject to regulatory approval, unsuitable waste material will be disposed of at an approved waste disposal site.</p> <p>The new wharf structure will consist of a new gravel approach; stem section and an outer portion angled 60° from the stem. The new gravel approach will be constructed with approximately 2500 m³ of rockfill and will extend from an existing asphalt parking area to LNT. The new stem section will be constructed of treated timber cribwork and will measure approximately 9.1 m by 40 m long. Both the stem and gravel approach will be protected with approximately 3450 m³ of armourstone. The outer portion of the wharf will be constructed of treated timber cribbing seated on a rock mattress. This structure will measure approximately 9.1 m wide by 80 m long (488 m² footprint). However, the benthic footprint of the final structure will be larger than the footprint of the wharf structure as a result of the installation of a rock mattress.</p> <p><u>Operation</u></p> <p>The Environmental Management System (EMS) with an integrated Environmental Management Plan (EMP) for the Harbour Authority of Dildo South will cover operational aspects of environmental management at the harbour (fuelling, waste disposal, activities on the property and water).</p> <p><u>Decommissioning</u></p> <p>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.</p> <p><u>Scheduling</u></p> <p>Commencement of this project is subject to DFO SCH operational priorities and funding, as well as regulatory approval, but will likely proceed during the summer of 2015.</p>	
<p>20. Location of Project:</p> <p>Dildo South is a small community located on the eastern shoreline of Trinity Bay on the Avalon Peninsula, approximately sixty three (63) kilometers west of St. John's, NL.</p>	

21. Environment Description:

Physical Environment

The project site is located at NAD coordinates 47° 31' 57" N, 53° 33' 05" W and may be accessed via provincial route 80. The existing facility consists of an L-shaped finger pier wharf, a fish plant and several fishing related buildings. The immediate project area is located along an exposed shoreline consisting primarily of bedrock and pebble-cobble material. The nearest residential dwelling is located approximately 500 m northeast of the project site.

Biological Environment

According to Fisheries and Oceans' Traditional Ecological Maps of the area, flounder, crab, several species of whale, seal and porpoise have been observed in the general area of the project site. Atlantic Saury, capelin, herring, mackerel, salmon, sunfish, lobster, mussel, scallop, squid and whelk may be found within or very near the project area.

South Dildo is located within the Maritime Barrens ecoregion, northeastern barren sub-region. The landscape is extensively forested with local heath vegetation, particularly along the coast. The tills in the area are generally a shallow rolling ground moraine with sandy loam to loam texture. The Hylocomium-Balsam Fir type occupies mid-slopes and it is usually associated with gleyed podzols or gleysols. The Maritime Barrens ecoregion has the coldest summers on the Island with frequent fog and strong winds. Winters are relatively mild with intermittent snow cover particularly near the coastline. Annual precipitation exceeds 1250 mm.

Species at Risk (Aquatic and Terrestrial)

A search of the Atlantic Canada Conservation Data Centre (ACCDC) database was conducted within a 5 km radius of the proposed project location (ACCDC 2014). The search yielded several species with documented sightings within the search area. However, those species are not identified as being listed under Schedule 1 of the Species at Risk Act (SARA).

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)				Section 5(2)			Due Diligence			
				Aboriginal Interest										
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														
Demolition and removal of wharf	P	-	P	-	-	-	-	-	-	-	P	P	P	P
Construction of new wharf and extension	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

23. Environmental Effects of Project:

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

Fish and Fish Habitat:

- Sedimentation as a result of wharf preparation, construction and installation may negatively impact fish and quality of potential fish habitat at the immediate project site.
- Accidental discharge of heavy machinery fuel/fluids could negatively impact fish and potential fish habitat.
- Infilling and construction of new wharf may result in destruction of potential fish habitat.

Birds/Bird Habitat

- Any type of hydrocarbon spill could result in bird or bird habitat loss.
- Noise / fumes may result in birds avoiding the site and surrounding area.

Water:

- Sedimentation as a result of wharf preparation, construction and installation may decrease marine water quality at immediate project site.
- Construction related refuse may be deposited in water-body, decreasing marine water quality.
- Accidental discharge of heavy machinery fuel/fluids may result in a decrease of marine water quality.
- Construction activities taking place near the shoreline may result in run off / erosion.
- Construction of wharf will result in a loss of flora, fauna, and habitat.

Aquatic species:

- Sedimentation as a result of wharf preparation, construction and installation may negatively impact aquatic species present at the immediate project site.
- Accidental discharge of heavy machinery fuel/fluids could negatively affect aquatic species present at the immediate project site.

Soil:

- Development of quarry to obtain material for crib ballast and rock mattress may result in loss of soils.
- Improper disposal of demolition timber may result in contamination of soils.
- Project activities could potentially result in soil contamination due to some type of mechanical malfunction resulting in a hydrocarbon spill.
- Construction activities at site or natural events (e.g. rainfalls) could result in erosion / sedimentation events.

Air quality:

- Construction activities may result in nuisance impacts due to noise and dust.

- May cause a temporary disturbance to residents and wildlife/marine life.

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

- Minimize duration of in-water work wherever possible.
- Conduct in-water work during periods of low flow, or at low tide, to further reduce the risk to fish and their habitat.
- Work should be scheduled to avoid periods of heavy precipitation. Erosion control structures (temporary matting, geotextile filter fabric) are to be used, as appropriate, to prevent erosion and release of sediment and/or sediment laden water during the construction phase.
- Plan activities near water such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, or other chemicals do not enter the watercourse.
- 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.
- 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.
- The in-water use of heavy equipment is not permitted. The operation of such equipment should be from dry/stable shoreline areas
- Develop and implement an Erosion and Sediment Control Plan for the site that minimizes risk of sedimentation of the waterbody during all phases of the project. Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized, suspended sediment has resettled to the bed of the waterbody or settling basin and runoff water is clear.
- Remove all construction materials from site upon project completion.
- Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks.
- Whenever possible, operate machinery on land above the high water mark, on ice, or from a floating barge in a manner that minimizes disturbance to the banks and bed of the waterbody.
- 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.
- All drainage and wash water from concrete production should be properly contained and should not drain into the marine environment.
- Cribbing ballast material 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.
- All crib backfill material should be clean and obtained from an approved quarry.
- The development of a quarry, if required, must be completed in accordance with applicable provincial legislation and regulations.
- All construction equipment should be fitted with standard and well-maintained noise suppression devices. Appropriate dust suppression methods should be employed, as required.
- As part of this project's pre-planning process, timber samples were collected from the proposed project areas and submitted for chemical analysis. Results from the sample analysis are available upon request. Treated timber is to be disposed of at an approved waste disposal

site and must adhere to all conditions stipulated in the NDOEC PP and Service NL disposal approvals.

- Weather conditions should be assessed on a daily basis to determine the potential risk on project activities.

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 location. No negative public concern was 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 Dildo South 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 – Navigation Protection Program (TC NPP)
- Newfoundland Department of Environment and Conservation, Environmental Assessment
- Newfoundland Department of Environment and Conservation, Pollution Protection
- Service NL

DFO FPP determined that 'Serious Harm' to fish could be avoided by following standard mitigations as described within this document.

TC NPP determined that an approval would be required under the Navigation Protection Act.

NDOEC Environmental Assessment provided a letter advising assessment under the provincial Act was not required.

NDOEC Pollution Prevention provided a letter advising acceptance of treated timber at an approved landfill.

All expert advice/specialist information provided by the abovenoted 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 Authority has evaluated the project in accordance with Section 67 of *Canadian Environmental Assessment Act (CEAA), 2012*. On the basis of this evaluation, the department has 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: April 8, 2015

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: _____

35. Date: _____

36. Name: Paul Curran

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


38. References: n/a

TRANSPORT CANADA RECOMMENDATION

39. This section must be completed by Transport Canada;

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.

40. REVIEWED by: 

41. Date: April 24, 2015

42. Name: Melissa Ginn

43. Title: Environmental Officer
Environmental Affairs and Aboriginal Consultation Unit, Programs
Transport Canada

44. The above has reviewed the environmental screening report and recommends the determination as indicated above.

45. RECOMMENDED by: 

46. Date: April 27, 2015

47. Name: Randy Decker

48. Title: Senior Environmental Assessment Officer
Environmental Affairs and Aboriginal Consultation Unit, Programs
Transport Canada

49. APPROVED by: 

50. Date: April 29, 2015

51. Name: Kevin LeBlanc

52. Title: Regional Manager
Environmental Affairs and Aboriginal Consultation Unit, Programs
Transport Canada

53. The above has reviewed the environmental screening report and approves the recommended environmental effects determination.

APPENDICES

- Appendix A - Topographic Map and Aerial Photographs
- Appendix B: Site Plan

Appendix A
Topographic Map and Aerial Photos

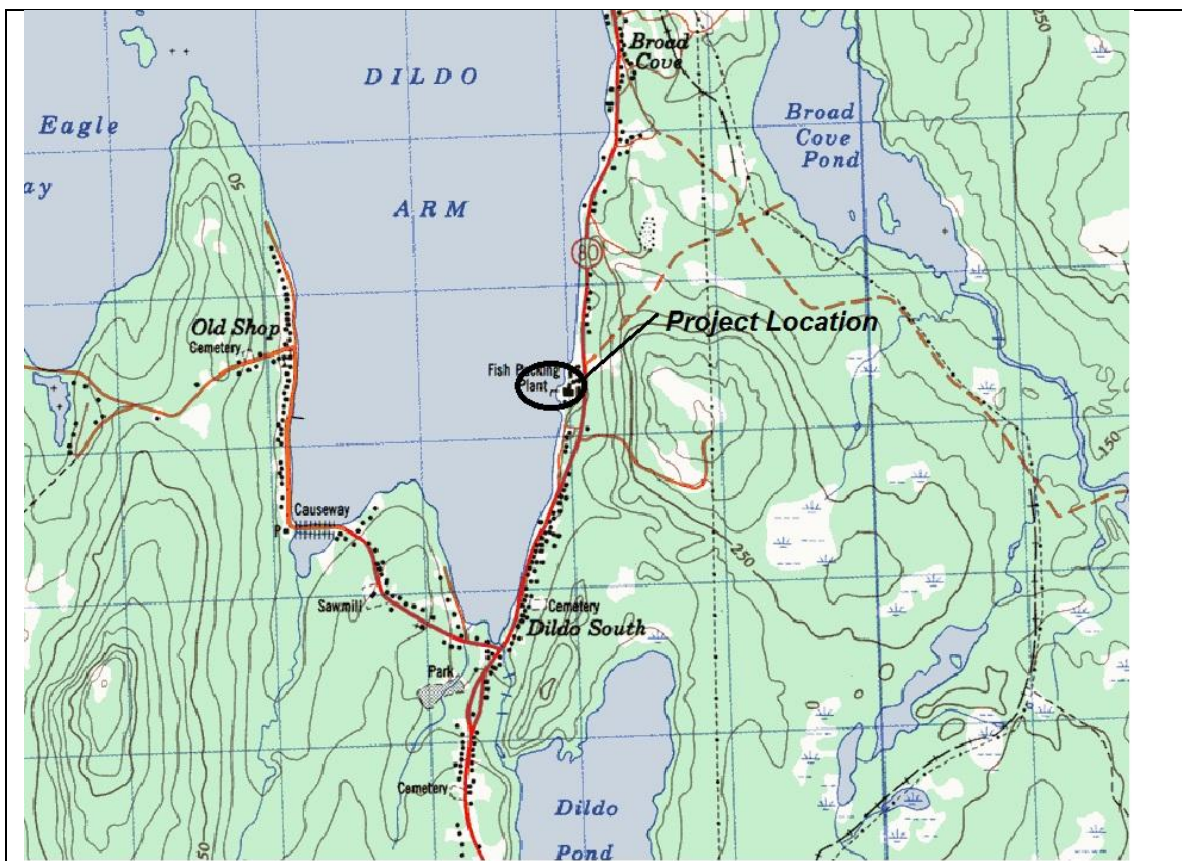


Figure 1. Topographic map indicating location of proposed project

Scale: 1:15,000

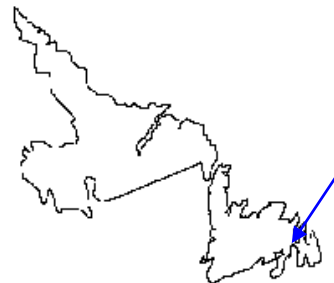




Figure 2: Aerial overview of South Dildo harbour with project sites circled. Source: DFO Photos, 2010.



Figure 3: Aerial close-up of proposed project site with wharf extension highlighted (not to scale).
Source: DFO Photos, 2010.

Appendix B
Site Plan of proposed project

