

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

GENERAL INFORMATION

1. Project Title: Removal of Various Surplus Infrastructure, Gull Island, NL	
2 Proponent: Fisheries and Oceans Canada, Real Property Safety and Security (DFO RPSS)	
3. Other Contacts (Other Proponent, Consultant or Contractor): Public Services and Procurement Canada	4. Role: OGD Consultant
5. Source of Project Information: Cyril Bannister, Project Officer, DFO RPSS	
6. Project Review Start Date: August 9 th 2017	
7. DFO File No.: F6879-171008	8. PWGSC File No: n/a
9. TC File No.: n/a	

BACKGROUND

10. Background about Proposed Development (including a description of the proposed development): The proposed Project involves the demolition and removal of surplus infrastructure associated with the lightstation property at Gull Island, NL. This infrastructure has been deemed redundant and is scheduled to be demolished and removed from the island.
--

PROJECT REVIEW

11. DFO's rationale for the project review: Project is on federal land <input checked="" type="checkbox"/> <u>and</u> ; <input checked="" type="checkbox"/> DFO is the proponent <input type="checkbox"/> DFO to issue <i>Fisheries Act</i> Authorization or <i>Species at Risk Act</i> Permit <input type="checkbox"/> DFO to provide financial assistance to another party to enable the project to proceed <input type="checkbox"/> DFO to lease or sell federal land to enable the project to proceed <input type="checkbox"/> Other	
12. Fisheries Act Sections (if applicable): n/a	
13. Other Authorities	14. Other Authorities rationale for involvement:

15. Other Jurisdiction: n/a	
16. Other Expert Departments Providing Advice: n/a	17. Areas of Interest of Expert Departments: n/a
18. Other Contacts and Responses: n/a	

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

Project Description

DFO RPSS is proposing to remove surplus infrastructure from the Gull Island lightstation site. These components have surpassed their useful life and require removal and clean up to reduce health and safety risk to departmental employees and other visitors to the site. There is also a level of environmental risk due to the presence of hazardous materials and mould in the structures. This lightstation site is registered as a federal heritage structure under the Federal Heritage Buildings Review Office (FHBRO), and Project activities will comply with best practices established by FHBRO regarding the demolition and disposal of federal historic sites and/or their components.

Site preparation:

The Project site is located on an island. As a result, workers may be required to temporarily reside on the island while Project activities are carried out. To accommodate the workers, a temporary tent / accommodations module may be set up on-site. The installation of temporary pit privies may also be required to accommodate workers. This will include bringing supplies, and areas for waste storage associated with workers living at the Project site.

Demolition / removal

Several structures associated with the Gull Island lightstation site will be demolished and removed, the list of structures includes the following:

- i. Double dwelling unit
- ii. Fog Alarm Building
- iii. Shed and winch house, spar, and boom
- iv. Main power building
- v. Stand-by diesel building
- vi. Powerhouse
- vii. Storage sheds
- viii. Timber helipad on concrete footings
- ix. Timber ramp
- x. Timber slipway deck remnants
- xi. Light, power, and battery shed
- xii. Boathouse
- xiii. Main equipment building
- xiv. Guy wire, cable hoist stays and guys, spar and boom, and wood post guy for spar and boom
- xv. Landing platform
- xvi. Lower equipment building and tank
- xvii. Tramway
- xviii. Concrete ruin (remove debris within ruins)
- xix. Walkway from equipment building to helipad
- xx. Enclosed walkway

Project drawings, outlining the location of each structure on the site, and the planned activities for each structure, are attached to this report as Appendix A. Infrastructure is to be removed in its entirety, aside from concrete foundations, which are to remain in place. Loose / flaking surface paint from these foundations will be removed, stored, and disposed of as hazardous lead-containing waste. Furniture and equipment associated with infrastructure, along with loose debris around the site, is to also be removed.

Hazardous materials produced as a result of the Project may include friable / non-friable asbestos, mercury, lead-containing paints, water pipes, thermostats, mercury-containing lightbulbs, PCB-containing light ballasts, refrigerators, fire alarms and extinguishers, and creosote-treated timbers. These and other hazardous waste materials will be disposed of at an approved waste disposal facility pursuant to applicable provincial and federal regulations / legislation and contract specifications. Specific hazardous materials found in each structure slated for demolition may be found in a Hazardous Building Materials Assessment (HAZMAT) completed for this Project (included in contract specification).

Removal of debris from the Project site to the Island of Newfoundland will be carried out via a sling from a helicopter. The debris will be transported from the Project site to the Town of La Scie, where it will then be secured, transported, and disposed of at an approved facility. All debris to be removed will be properly prepared for slinging, and the slinging nets will be transport approved for helicopter slinging operations. It is the responsibility of the contractor to dispose of all waste, including hazardous materials, from the Project site. The waste management removal strategy from the contractor will be approved by DFO-RPSS before Project activities commence.

Scheduling

Subject to regulatory approval and operational priorities and funding, this Project may commence during the 2017-2018 fiscal year.

20. Location of Project:

The Project site is located on Gull Island, an island located in Notre Dame Bay approximately 9 km east of Cape St. John. The closest residential community to the island is La Scie, which is approximately 17 km southwest of the island. Coordinates for Gull Island are: 49° 59' 48" N, -55° 21' 49" W (refer to photographs in Appendix B). It is accessible by boat or helicopter.

21. Environment Description:

Physical Environment

The site is located within the Northshore Ecoregion, a narrow 20-25 km wide coastal zone extending from Bonavista Bay to the Baie Verte Peninsula. The majority of this ecoregion is forested, with barrens occurring primarily along exposed coastal areas such as Gull Island and the Project site. The Project site occupies an exposed area, and salt spray, fog, and wind are nearly constant elements. The coastal headland areas are predominantly rock-dominated, non-forested ecosystems that develop on rock outcrops and other rocky surfaces, where the vegetation community is dominated by carpets of heath vegetation growing on infertile soils. Gull Island occupies an area of approximately 0.6 km² and consists mainly of exposed bedrock with pockets of thin soil cover (ranges from exposed bedrock to more than 0.4 m thick) (Stantec 2013). The soil supports low grasses and shrubs. This ecoregion is characterized by cool summers and short, cold winters, although it has the warmest summers of the coastal areas. The mean annual temperature is approximately 4°C, with a mean summer temperature of 12.5°C and a mean winter temperature of -3.5°C. This ecoregion is the driest part of the Island of Newfoundland, with a mean annual precipitation ranging from 900 mm to 1,000 mm.

Biological Environment

Gull Island is a coastal headland site characterized by the presence of dwarf heath shrubs, forming mats of vegetation (growing only a few inches tall), and small scrub black spruce on the exposed rocky coastal cliff slopes. Black crowberry is the most abundant shrub species and together with partridgeberry, pink crowberry, alpine-azalea, and common bearberry occupy areas of Gull Island (Stantec 2013). Ground vegetation cover varies in abundance from sparse to moderately abundant. In the herb layer, three-toothed cinquefoil is characteristic. The most abundant grass species include crinkled hairgrass and Pickering's reedgrass. The bryoid layer may feature common haircap moss, juniper moss, red-stemmed feathermoss,acomitrium moss, reindeer lichens, and crustose rock lichens.

With the exception of some black spruce observed growing in cliff crevices on the southwestern sloped area of the island, the island does not have forested areas. During a site visit conducted by Stantec in 2013, bald eagles, American crows, herring gulls, and small unidentified brown birds were observed on the island. Unidentified bird scat was observed during the site visit. Based on the terrestrial habitat survey, mammals expected to be present on the island may include meadow voles and masked shrew (Stantec 2013).

The Project site, and Gull Island itself, is not located within a special or protected area, but still may provide habitat or an aggregation point for migratory bird species. The surrounding waters provide habitat for a variety of marine species such as groundfish, shellfish, pelagic fish, whales, seals, and marine plants.

Species at Risk (Aquatic and Terrestrial)

A search of the Atlantic Canada Conservation Data Centre (ACCDC) database was conducted; this produced a list of rare / unique species (i.e., plants and animals) within a 5 km buffer zone (standard ACCDC procedure) of the Project site. Species were cross-referenced with Schedule 1 of the *Species at Risk Act* (SARA); no species were identified within the buffer zone.

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

Table 1: Potential Project / Environment Interactions Matrix

Project Phase / Physical Work/Activity	As per Section 5(1)			Section 5(1c) Aboriginal Interest				Section 5(2)			Due Diligence			
	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														
Temporary tent installation	-	-	P	-	-	-	-	-	-	-	-	-	-	-
Temporary pit privy installation	-	-	P	-	-	-	-	-	-	-	P	-	P	-
Operation / Maintenance														
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Decommissioning / Abandonment														
Dwelling demolition/removal	P	-	P	-	-	-	-	P	-	P	P	-	P	P
Removal of associated infrastructure	P	-	P	-	-	-	-	P	-	P	P	-	P	P

**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 / Fish Habitat

- In the event of a malfunction or accidental event while removing waste material, including hazardous material, off the island, deleterious substances could enter the marine environment and affect the quality of fish habitat in the general area.

Birds (MBCA):

- Migratory birds and/or their nests may be encountered during Project activities, resulting in disturbances to nesting / feeding birds.
- The use of a helicopter for transportation of Project staff, waste, and potential machinery (if required) could potentially be a deterrent for birds that may be using Gull Island.

Health and socio-economic (5(2)):

- Mould and hazardous materials such as asbestos-containing materials, lead- / mercury-containing paints, and creosote-treated timber have been identified in some of the structures slated for demolition (refer to the HAZMAT report (included in contract specification) for specific contaminants and their locations). Improper handling of such materials have the potential to result in negative impacts to human health.

Water:

- Hazardous materials such as asbestos-containing materials, lead- / mercury-containing paints, and creosote-treated timber have been identified in some of the structures slated for demolition (refer to the HAZMAT report (included in contract specification) for specific contaminants and their locations). Improper handling and disposal of such materials have the potential to result in contamination of nearby waterbodies, including the marine environment.
- If machinery is required on site, accidental discharge of machinery fuel / fluids could result in contamination of nearby waterbodies.
- Incorrect installation / operation of temporary pit privies may result in contamination of nearby waterbodies.

HAPA:

- These buildings are part of a registered historic site under FHBRO. As such, the demolition of some components has the potential to affect the historical value of the site.

Soils:

- Hazardous materials such as asbestos-containing materials, mercury, lead-containing paints, and creosote-treated timber have been identified in some of the structures slated for demolition (refer to the HAZMAT report (included in contract specification) for specific contaminants and their locations). Improper handling and disposal of such materials have the potential to result in contamination of surrounding soils.
- Accidental discharge of machinery fuel / fluids could result in contamination of on-site soils.
- Incorrect installation / operation of temporary pit privies may result in contamination of on-site soils.

Air Quality:

- Demolition of Project infrastructure known to contain mould and asbestos has the potential to temporarily affect the immediate air quality around the demolition site, which may interact with Project personnel.
- The potential burning of non-hazardous waste materials within the cistern of the double dwelling has the potential to result in reduced air quality in the immediate vicinity of the dwelling.

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

- Under Section 6 of the *Migratory Birds Regulations*, it is forbidden to disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg.
- The breeding season for migratory birds is approximately April 15th – August 15th. Should migratory birds or their nests be encountered during Project activities, the site supervisor should be immediately notified and work reduced or stopped to avoid potential disturbance to the nest site and surrounding habitat. Environment and Climate Change Canada should be consulted on protection measures if terrestrial habitats / resources of concern are identified.
- The proponent should consider the development and implementation of a management plan to further reduce the risk of effects on migratory bird species.
- In general, a minimum setback distance of 300 m should be maintained between Project activities and areas of the island occupied by seabirds. Helicopter use near seabird colonies should be avoided during the breeding season.
- If encountered, Project staff should not approach concentrations of seabirds, sea ducks, or shorebirds. Interacting with wildlife, including feeding, is prohibited.
- Food waste from Project staff can increase the potential for human-wildlife encounters, and increases the chance for effects to wildlife and worker safety. As a result, food scraps, and litter should be properly contained in approved storage containers and not left on site by staff. Food and other non-hazardous wastes will be disposed of at an approved facility.
- Temporary pit privies are to be installed / operated and removed pursuant to applicable provincial guidelines for the installation / operation and removal of pit privies in remote locations.
- If machinery is determined to be needed on site, it will be kept clean and in good repair, free of mud, fuel and oil, or other substances that could have an effect on soil or water quality.
- Oil spill response equipment, such as adsorbents and open-ended barrels, should be available on-site in case of a spill or leak. Spills or leaks must be promptly contained, cleaned up and reported to the 24-hour environmental emergencies report system (1-800-563-2444).
- The contractor is responsible for having an established oil spill response plan in place prior to commencing Project activities, which is compliant with applicable federal and provincial legislation. This oil spill response plan must be reviewed and approved by the proponent (DFO-RPSS) prior to commencing Project-related activities.
- Construction equipment is to be maintained in good working order; careful maintenance and monitoring of equipment will be conducted to reduce the risk of spills or leaks of petroleum-based products.
- Lead paint exceeding landfill disposal guidelines is to be considered hazardous waste and must be disposed of at an approved hazardous waste treatment facility.
- Asbestos-containing materials must be removed and transported to an approved waste disposal site by a registered asbestos abatement contractor. Asbestos-containing materials will be disposed of in accordance with applicable provincial and federal regulations / legislation and contract specifications and with approval from the departmental representative.
- Hazardous materials produced as a result of the Project are to be transported off-site for disposal / treatment at an approved waste handling facility pursuant to applicable provincial and federal regulations / legislation and contract specifications.
- Non-hazardous waste materials may be burned on-site within the cistern of the double dwelling foundation with prior approval from the departmental representative. Burning at another location is not permitted. Other wastes are to be transported to and disposed of at an approved waste disposal facility pursuant to provincial and federal regulations / legislation and contract

specifications. Refer to the contract specifications for information on materials that can and cannot be burned. It is the responsibility of the contractor to obtain burning permits that meet the requirements of the provincial *Environmental Protection Act*.

- It is currently anticipated that materials that cannot be burned are to be stored securely to be transported off the island, to be disposed of at an approved facility. The transportation of waste material / infrastructure off the site, including hazardous material, must be compliant with the federal *Transportation of Dangerous Goods Act, Canada Transportation Act*, and associated regulations, and should follow appropriate provincial guidance documents for the disposal of hazardous wastes.
- Transportation of materials, including waste materials, on or off site, will be conducted during non-adverse weather conditions, to reduce the risk of impacts to the environment and worker safety. The contractor will check weather conditions daily to avoid periods of high wind or precipitation.
- Project activities are to be undertaken in a manner that is compliant with applicable federal and provincial health and safety legislative requirements. Workers are to be supplied with and wear the appropriate Personal Protective Equipment for tasks that involve an interaction with hazardous materials. It is the responsibility of the contractor to implement a health and safety plan that is compliant with relevant regulations.
- Project activities will be undertaken in a manner that is compliant with best practices for the demolition and removal of a historic structure / site that have been outlined by FHBRO. The contractor should coordinate with FHBRO to be compliant with these practices.
- Work will be conducted in a manner that prevents the release of debris or deleterious substance into a body of water.

25. Significance of Adverse Environmental Effects on the Project:

Taking into account mitigation measures, this Project is not anticipated to cause significant residual adverse effects on the environment.

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

Public Consultation

The proposed Project is located in a remote, uninhabited location. 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

The proposed Project is located in a remote, uninhabited location. As such, Aboriginal consultation was not deemed necessary as part of this determination.

Government Consultation

Federal and provincial authorities were deemed not likely to have an interest in the Project. As such, Public Services and Procurement Canada, Environmental Services, did not undertake government consultation during the course of this assessment.

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 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: Stantec Consulting Ltd.

30. Date: August 15th, 2017

31. Reviewed by:



32. Date: September 14, 2017

33. Name: Mark McNeil

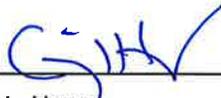
34. Title: Environmental Specialist, PWGSC-ES

DECISION

35. 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

36. Approved by: _____



37. Date: _____



38. Name:

Craig Hogan

39. Title:

A/Regional Director, DFO-RPSS, NL

APPENDICES

- Appendix A – Project Drawings
- Appendix B – Project Location

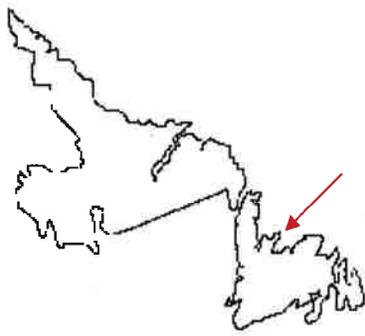
APPENDIX A
Project Drawings

APPENDIX B
Project Location



Description

Aerial View of Proposed Site
Location: Gull Island



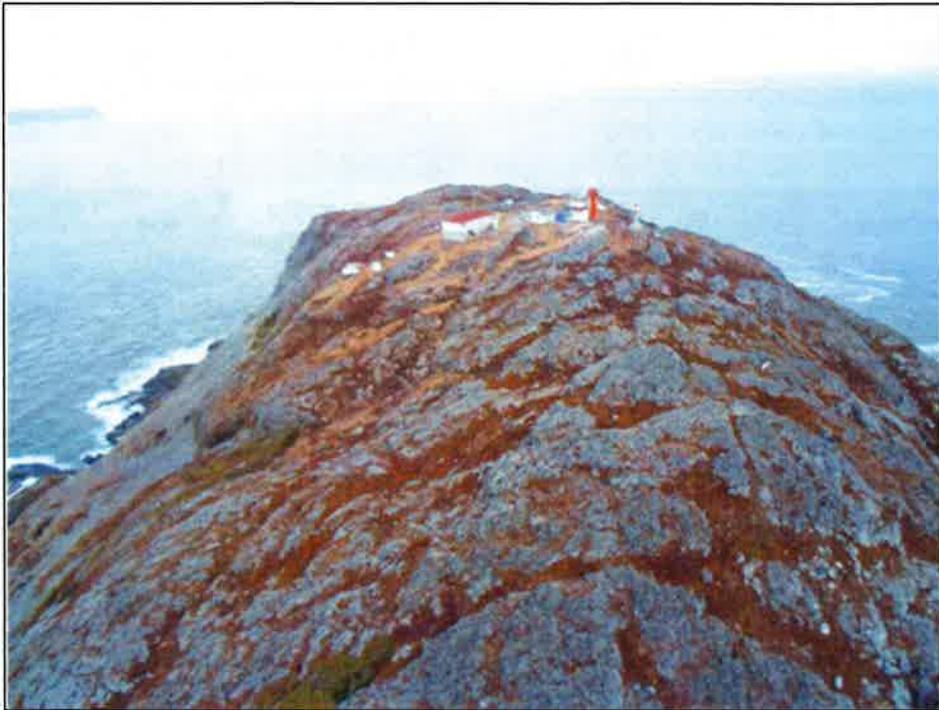


Photo 1: Aerial overview of Gull Island Project site.



Photo 2: Aerial view of Gull Island Lightstation



Photo 3: Lower Landing Area



Photo 4: Area North of the Light Tower

