

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

**GENERAL INFORMATION**

<b>1. Project Title:</b> Removal of Various Surplus Infrastructure, Belle Isle North, NL	
<b>2 Proponent:</b> Fisheries and Oceans Canada, Real Property Safety and Security (DFO RPSS)	
<b>3. Other Contacts</b> (Other Proponent, Consultant or Contractor): Public Services and Procurement Canada	<b>4. Role:</b> OGD Consultant
<b>5. Source of Project Information:</b> Cyril Bannister, Project Officer, DFO RPSS	
<b>6. Project Review Start Date:</b> July 21 <sup>st</sup> , 2017	
<b>7. DFO File No.:</b> F6879-171007	<b>8. PWGSC File No.:</b> n/a
<b>9. TC File No.:</b> n/a	

**BACKGROUND**

<p><b>10. Background about Proposed Development (including a description of the proposed development):</b></p> <p>The proposed Project involves the demolition and removal of surplus infrastructure associated with the lightstation property at Belle Isle North. This infrastructure has been deemed redundant and is scheduled to be demolished and removed from the island.</p>
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**PROJECT REVIEW**

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

**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 Belle Isle North 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 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 also include bringing supplies, and areas for waste storage associated with workers living at the Project site.

### Demolition / removal

The following structures associated with the Belle Isle North lightstation site will be demolished and removed, including:

- i. Dwelling removals: demolition and removal of both a single and double-dwelling unit, wood frame structure, including painted wooden siding, drywall, insulation, windows, brick, doors, asphalt shingles, and interior materials. The concrete foundation, including the above-grade foundation walls, may be left intact. Loose / flaking surface paint will be removed and disposed of as hazardous lead-containing waste. Core holes will be drilled into the cistern of the dwellings to avoid water ponding.
- ii. Equipment building: demolition and removal of one-storey, wood frame structure, including wooden siding, windows, door, asphalt shingles, and interior materials. on-site. Loose / flaking surface paint will be removed and disposed of as hazardous lead-containing waste.
- iii. Winch house: Small wood-frame winch house, shed, and creosote-treated slipway will be demolished and removed. Creosote-treated timber will be collected and stored as hazardous waste.
- iv. Generator building: Demolition and removal of wood frame structure, including wooden siding, windows, door, asphalt shingles, and interior materials. Loose / flaking surface paint will be removed and disposed of as hazardous lead-containing waste.
- v. Hoist and Lower Landing Boathouse: Demolition and removal both structures. Loose / flaking surface paint will be removed and disposed of as hazardous lead-containing waste.

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. The removal of waste materials off of the island, including hazardous waste, is not part of the scope of work for this Project. The waste materials are planned to be stored on the island and to be removed at a later date.

Hazardous materials produced as a result of the Project may include friable / non-friable asbestos, lead- / mercury-containing paints, mercury-containing lightbulbs, PCB-containing light ballasts, refrigerators, fire alarms, 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 completed for this Project (included in Contract Specification).

**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 Belle Isle, an island located approximately 25 km off the south coast of Labrador, and approximately 26 km from the coast of the Island of Newfoundland. The coordinates are: 51° 54' 38" N, -55° 22' 46" W (refer to photographs in Appendix B). It is accessible only by boat or helicopter.

## **21. Environment Description:**

### **Physical Environment**

Belle Isle is located within the Strait of Belle Isle Ecoregion, which covers the treeless, northern tip and west coast of the Northern Peninsula on the Island of Newfoundland, and Belle Isle. The primary characteristic of this ecoregion is its cold temperatures and presence of pack ice for large portions of the year. Frost can occur at any time of the year, and this ecoregion has the shortest growing season of others in Newfoundland and Labrador. Mean daily temperatures range from -9°C and -16°C in the winter, and 12°C to 17°C in the summer. Annual rainfall is approximately 1,500 mm, and snowfall ranges between 2.5 to 3 m annually. Soil levels in this region are low, and areas of exposed bedrock are common, with coastal barrens being a dominant feature of the landscape. Many of the barrens and underlying bedrock contain limestone and have higher calcium deposits than other areas of the province. The general Project site contains exposed bedrock with intermittent grass cover. The slipway for boats to access the island is located in a sheltered harbour.

### **Biological Environment**

Vegetation near the Project site consists primarily of low-lying shrubs and grasses. Due to the cold conditions of this ecoregion, the vegetation mostly consists of Arctic-alpine plants such as dwarf willow and velvet bells. Low masses of tuckamore containing white birch, black spruce, and balsam fir occur in the ecoregion. The change in bedrock composition from east to west alters the pH levels in the soil. Areas with bedrock made of limestone contains calcium-rich soils. These areas yield plants that are considered rare or uncommon, such as mountain avens, Lapland rosebay, white orchid, and flame lousewort. In areas with lower limestone deposits, alpine bearberry, alpine azalea, and pink crowberry are common. Bird species common to this area include various types of sparrows and the short-eared owl. The ecoregion plays host to a number of migratory bird species, including shorebirds such as white-rumped sandpiper and ruddy turnstone, and seabirds such as common eiders. Mammal in this ecoregion include red fox, red squirrel, lynx, little brown bat, snowshoe hare, short-tail weasel, and black bear. Polar bears are occasionally found in this ecoregion, as they cross over from Labrador on pack ice. Aquatic fish species include Atlantic salmon, three-spine and nine-spine stickleback, brook trout, and rainbow smelt. Marine fish species vary and would include a variety of pelagic fish, groundfish, and crustaceans. Whales are known to pass through the Strait of Belle Isle during migration periods. It is not known if there are any sources of fresh water on Belle Isle specifically, but due to the high elevation of the island and its location in the Atlantic ocean, it is likely that the only sources of water would be through precipitation

The island may provide shelter for nesting migratory birds, as the Strait of Belle Isle is used as a migration route for some migratory bird colonies, and there are special areas such as Important Bird Areas and ecological reserves located throughout the Strait of Belle Isle. The Project site, and Belle Isle itself, is not located within a special or protected area, but still may provide habitat or a aggregation point for migratory bird species. The surrounding waters provide habitat for a variety of marine species but are unlikely to be affected by Project activities.

### **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)				Section 5(2)			Due Diligence			
	Fish (Fisheries Act)	Aquatic Species (SARA)	Birds (MECA)	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
<b>Construction / Installation</b>														
Temporary tent installation	-	-	P	-	-	-	-	-	-	-	-	-	-	-
Temporary pit privy installation	-	-	P	-	-	-	-	-	-	-	P	-	P	-
<b>Operation / Maintenance</b>														
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Decommissioning / Abandonment</b>														
Dwelling demolition/removal	-	-	P	-	-	-	-	P	-	P	-	-	P	P
Equipment and generator building demolition/removal	-	-	P	-	-	-	-	P	-	P	-	-	P	P
Winch house/ hoist and boathouse building demolition/removal	-	-	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:

#### **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 could potentially be a deterrent for bird that may be using Belle Isle.

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

- 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, 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 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 potentially to temporarily affect the immediate air quality around the demolition site, which may interact with Project personnel.

#### **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.
- Pre-construction surveys should be conducted to identify migratory bird nests or other habitats within the Project site that warrant protection during Project activities. 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 and waterbirds. 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 shipped off site to 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).
- 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.
- 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. 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, including hazardous materials, are to be stored in UN-approved, self-standing yard waste bags, and will remain on site to be removed later. These bags must be stored in a manner that protects precipitation and/or wildlife from interacting with the waste contained within the bags, which can then cause environmental effects. This may include erecting a roof or storage area to conceal bags, or covering bags with a weather-proof cover. This will be left to the successful contractor to determine the most effective method.

- Should demolished material, including hazardous wastes, need to be disposed of off-site, disposal must be done in accordance with applicable provincial and federal regulations / legislation and with prior approval from the departmental representative.
- 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**

Other federal and provincial authorities were deemed not likely to have an interest in the Project and as such were not consulted by Public Services and Procurement Canada, Environmental Services, 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 11<sup>th</sup>, 2017

31. Reviewed by:



32. Date: August 30, 2017

33. Name: Mark McNeil

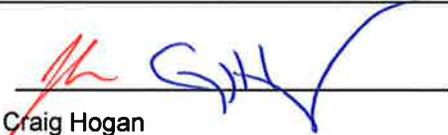
34. Title: Environmental Specialist, PWGSC-ES

## 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

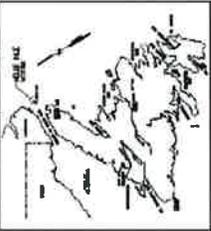
**APPENDICES**

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

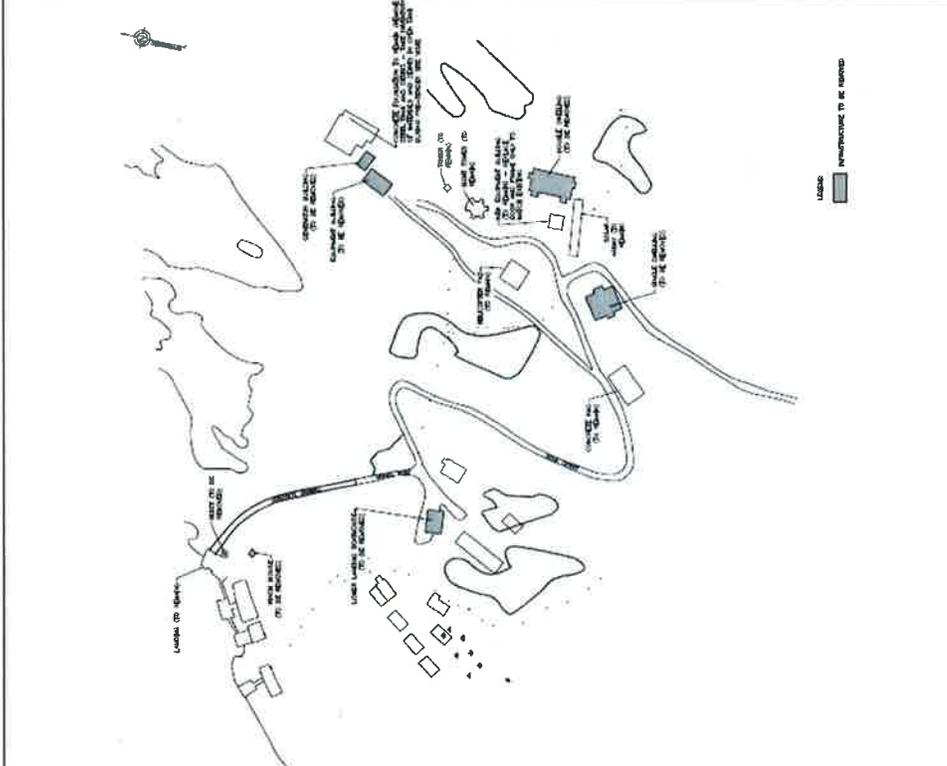
**APPENDIX A**  
**Project Drawings**

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Florida  
 Department of  
 Transportation  
 Bureau of  
 Planning and  
 Design  
 1111 North  
 West Street  
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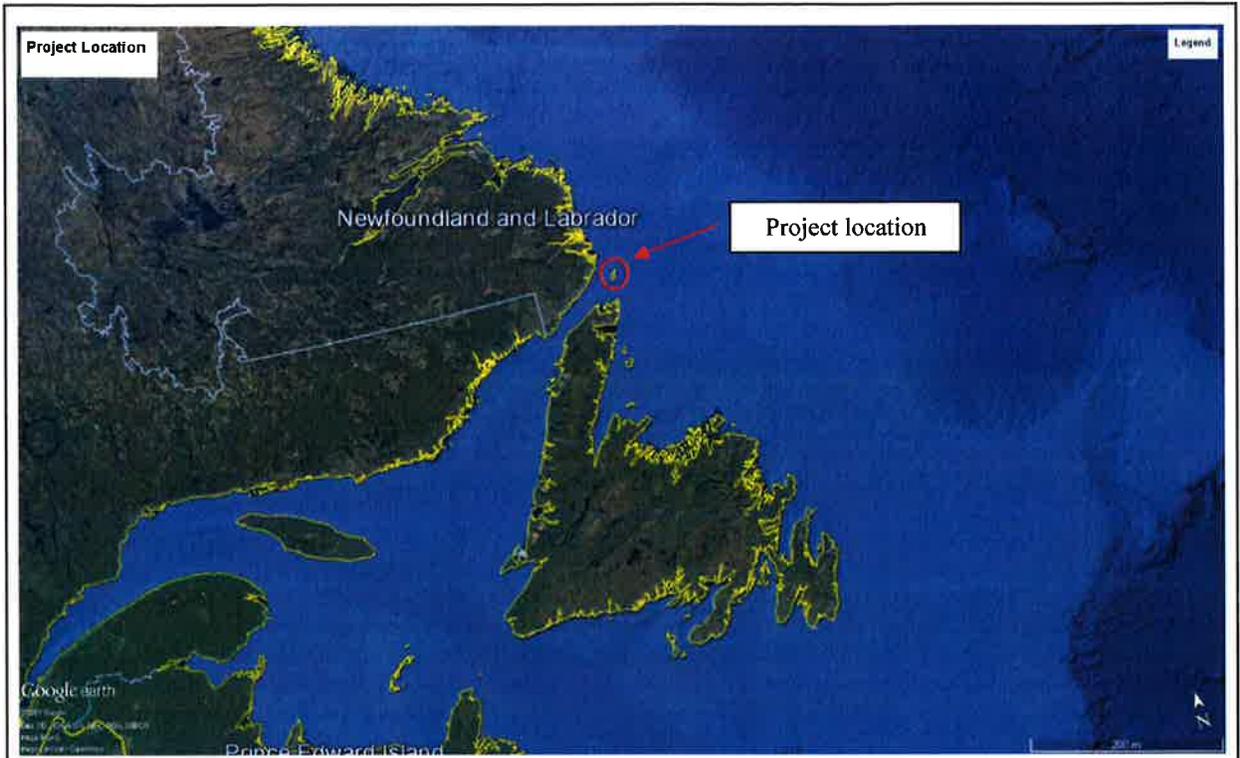


DATE	12/15/11	BY	WJL
REVISION		BY	
DESCRIPTION			
<b>REMOVAL OF VARIOUS SURPLUS          INFRASTRUCTURE AT BELLE ISLE          NORTH LIGHTSTATION, FL</b>			
<b>SITE PLAN</b>			
SCALE	AS SHOWN		
PROJECT NO.	11-0000		
DATE	12/15/11		
BY	WJL		
CHECKED BY			
APPROVED BY			



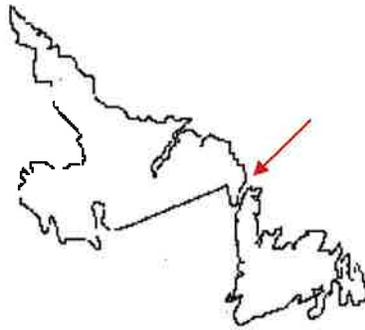
**APPENDIX B**  
**Project Location**

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**Description**

Aerial View of Proposed Site  
Location: Belle Isle



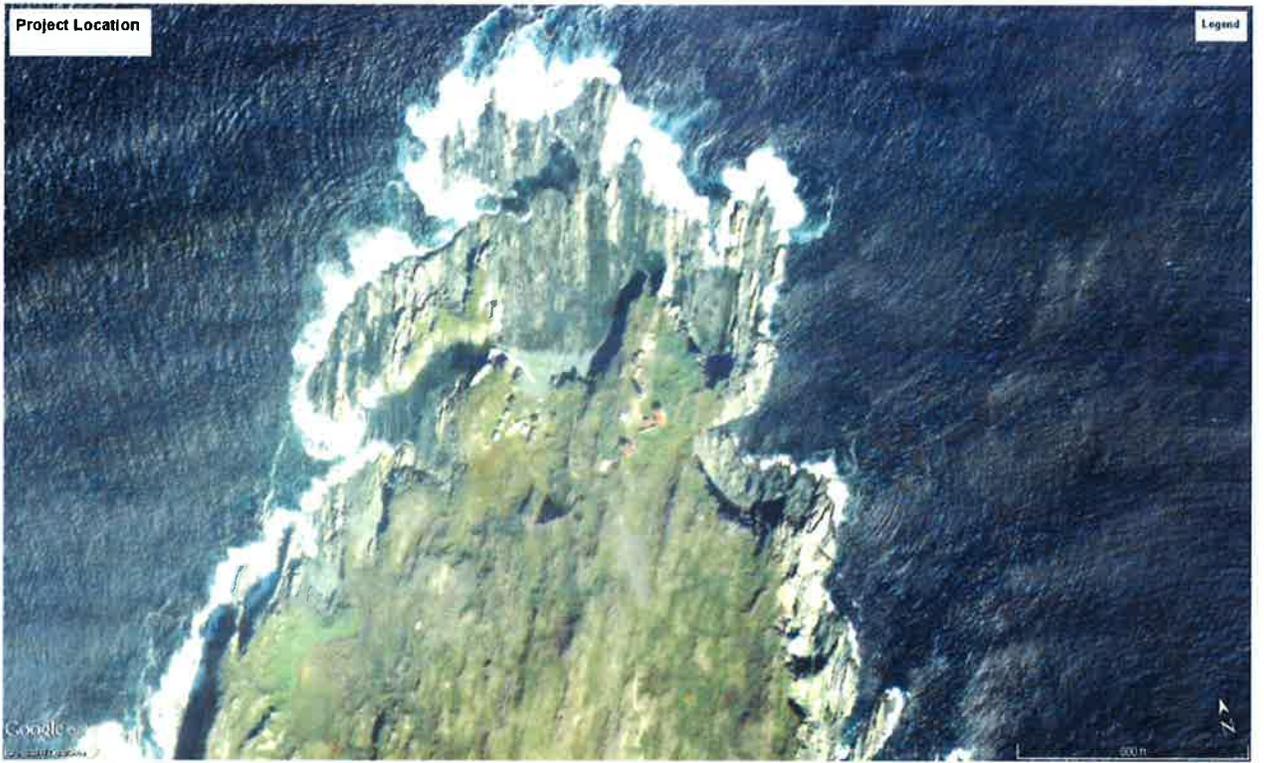


Photo 1: Aerial overview of Belle Isle North project site.

