

**REGISTRATION PURSUANT TO CHAPTER E-14.2
OF THE ENVIRONMENTAL PROTECTION ACT,
SNL 2002**

ENVIRONMENTAL ASSESSMENT

**FOR THE DEMOLITION OF THE EXISTING
TRESTLE
ON MAIN GUT, STEPHENVILLE CROSSING
TRAILWAY**

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Appendix A: General Project Details

PROPONENT:

i. Name of Corporate Body

Department of Transportation and Infrastructure
Government of Newfoundland & Labrador


ii. Address

5th Floor, Confederation Building (West Block)
St. John's, NL
A1B 4J6

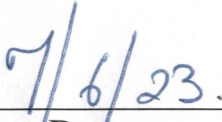
iii. Chief Executive Officer

Cory Grandy
Deputy Minister
729-3676

iv. Approval for Environmental Assessment Submission



Dan Michielsen
Assistant Deputy Minister
Transportation and Infrastructure
729-3796



Date

v. Principal Contacts for the Purpose of Environmental Assessment

Clifford Smith
Director,
Highway Design and Construction
729-6610

Ken Hannaford
Senior Environmental Planner
Highway Design and Construction
729-5540

THE UNDERTAKING:

(i) Name of the Undertaking

This submission is for the demolition of the deteriorated trestle on the T’Railway parallel to Route 461. The location falls on Main Gut which is between the estuary of George’s River and the ocean is used for migration for salmon for Harry’s River and Southwest Brook, two scheduled salmon rivers. The project location is 100 m upstream of Main Gut Bridge on Route 461 (Fig. 3).

It is being undertaken by Highway Design of Transportation and Infrastructure for the Parks Division of Tourism, Culture, Arts and Recreation.

(ii) Nature of the Undertaking

The Main Gut Trestle is severely deteriorated and in need of removal (Fig. 6). The trestle is currently under an advanced state of deterioration needing to be removed permanently. It will be demolished, removed, and disposed of in an environmentally responsible manner with all metals being recycled.

(iii) Purpose / Rationale / Need for the Undertaking

The purpose of this project is to remove the aged and deteriorated trestle on the T’Railway over Main Gut, Stephenville as it is deteriorated and are in need of

demolition. It poses a fall hazard for watercraft passing under it. Vehicular traffic has been prohibited from using the trestle. The following points outline the situation of the hazard.

1. Main Gut trestle has been identified as requiring remedial action based on engineering assessments completed on behalf of The Parks Division of the department of Tourism, Culture, Arts and Recreation (TCAR) by Transportation and Infrastructure (TI) in 2006, 2007, 2012 and 2017.
2. On November 8, 2006, based on an inspection by TI, the former Department of Environment and Conservation announced the closure of the 100 year old Main Gut trestle near Stephenville Crossing to all pedestrian, ATV, snowmobile and vehicular traffic until further notice. Barricades, caution and warning signs were erected at both approaches to the bridge.
3. The trestle was used heavily by local ATV and snowmobile users. Since 2006, the public has been using the nearby motor vehicle bridge as an alternate route.
4. A subsequent 2007 report by Rutter Engineering and Automation Ltd., recommended that the structure, because of its overall poor condition, remain closed to the public. This report also indicated there was a high probability that the trestle will collapse within ten (10) years. Precedence for such a collapse occurred in the spring of 2009 when the 117m long Crabbes River trestle collapsed.
5. The removal of the Main Gut trestle is a priority due to its overall poor condition, the most recent risks identified by TI associated with falling debris, and the potential risks that collapse presents to public health and safety and adjacent TI infrastructure.
6. A collapsed trestle of this size could also become a barrier for spring ice and cause flood damage within the Town of Stephenville Crossing. This town is located on a low lying plain just a few feet above sea level.
7. The trestle is located approximately 100m upstream from the Route 461 vehicle bridge maintained by TI. TI advised that should the trestle collapse, it could present a risk to the nearby vehicle bridge.
8. TI engineers estimate the cost of removing the 141m trestle at approximately \$750K to \$1M. This project involves developing an engineering scope of work, tendering, and bridge removal.
9. A collapsed bridge structure of this magnitude may cause the province to be in violation of the Navigable Waters Protection Act and the Fisheries Act.
10. Bridge Inspection reports completed by TI in 2017 and 2018 both note that

the trestle should be removed. The 2018 report also notes that the trestle is unsafe for further inspection.

Description of the Undertaking

Geographic Location

Main Gut Trestle is located at the outlet of George's River on the T'railway, which crosses Main Gut, Stephenville. The coordinates are 48° 29' 17.09" N, 58° 25' 30.01" W (Fig. 2).

Physical Features.

The existing trestle is a two span (70.5m each) iron camelback truss bridge that is approximately 5 m wide and is supported on concrete abutments with a single pier in the middle.

Environment.

This area is in part of the **Southwestern Newfoundland Ecoregion**, St. George's Bay subregion. The St. George's Bay subregion covers the area east and south of Stephenville, taking in 1,521 km². It extends inland from the coast to the borders of the Central Newfoundland Forest and the Southern Long Range Barrens. 1,521 km². It extends inland from the coast to the borders of the Central Newfoundland Forest and the Southern Long Range Barrens. This portion of the Western Newfoundland Forest is marked by terrain that is flat to rolling. Forested, lower slopes of the Long Range Mountains in the east flatten out towards the coast into extensive **plateau bogs**, sometimes covering up to 10 km². In heavily forested areas deep, rich soils formed from glacial deposits and runoff occur. Near the coast, soils are more coarse and nutrient-poor, and result in forests that are not as full and

have smaller trees. All of the Western Newfoundland Forest ecoregion experiences warm summers and cold winters. It is one of the most climatically favourable regions for plant growth on the Island.

The St. George's Bay subregion is characterized by forests of balsam fir with an understory of mostly wood ferns. Balsam fir forests with just a feathermoss floor covering (common in central Newfoundland) are restricted to rocky slopes. The presence of primarily fern-dominated forests in most of this ecoregion helps distinguish it from the forests of the Central Newfoundland Forest, which are primarily moss-dominated. Black spruce occur mostly on poorly drained locations, or in areas with exposed bedrock. Since forest fires are rare, fire stands of black spruce are not common. Fire stands are groups of trees well adapted to colonizing burnt areas. Two types of alder swamps occur nowhere else on the Island but in this ecoregion: golden rod/alder and bracken fern/alder swamps. Both are found where the soil is water-logged or poorly drained, making these areas high in nutrients and giving them a rich layer of herbs.

Wildlife in the Western Newfoundland Forest ecoregion is among the most diverse on the Island. Moose, mink, snowshoe hare, lynx, black bear, red fox, beaver, muskrat, and otter all occur. Other mammals can be seen in the area, as well, such as little brown bat, eastern chipmunk, masked shrew, short-tailed weasel, and red squirrel.

Birds occurring in forested areas include osprey, yellow-bellied and alder flycatchers, finches, a wide variety of woodpeckers, and several species of thrushes, such as Swainson's thrush. This is also a good area for warblers, including yellow, magnolia, yellow-rumped, and black-throated green. In shrublands, marshes, and bogs American bittern, song sparrow, bobolink, and Lincoln's sparrow can be found. Aquatic birds found in this subregion include American widgeon, black duck, and green-winged teal. Scoters, particularly white-winged, are sometimes abundant in shallow nearshore areas, as are other seaducks, such as oldsquaw and common eider.

Shorebirds nesting here include greater yellowlegs, common snipe, spotted sandpiper, plus the only known location of nesting willets in the province is on Flat Island. In addition, the endangered piping plover has been known to nest in low numbers (one to two pairs) in this subregion. Large concentrations of migrating shorebirds can also be observed on these tidal flats in fall. Flat Island is home to a

seabird colony containing common terns, arctic terns, ring-billed gulls and black-backed gulls.

The rivers and ponds of St. George's Bay subregion host nine- spine stickleback, three-spine stickleback, black-spotted stickleback, arctic char, Atlantic salmon, brook trout, rainbow smelt, American eel, mummichog, and banded killifish, which is designated special concern in Newfoundland. There are no reptiles recorded for this subregion. The green frog, one of a number of introduced amphibians, inhabits small quiet ponds and marshes in low numbers.

Potential receptors include travelers on Route 461, users of George's River and residents of Stephenville Crossing. There are also a small number of cabin owners around George's River.

Habitat at Project Site(s).

The reach of the stream under the trestle consists of a constriction in the estuary of George's River as it joins the salt water. It is migration habitat for salmonids and subject to full tidal forces (Fig. 4). Sand is the dominant substrate (~100%) Velocities are highly variable and switches upstream to downstream depending on tides. Riparian vegetation is virtually non-existent with some sparse grasses adjacent to the footings.

The Department of Transportation and Infrastructure will consult with the Water Resources Division of the Department of Environment and Climate Change to ensure that the best plan of action is followed for removing the trestle and minimizing potential deleterious impacts on the existing aquatic habitats. The Water Resources Division's Environmental Guidelines for work around watercourses will be used during the design and construction phases.

- DFO's Guidelines for Protection of Freshwater Fish Habitat in Newfoundland and Labrador (1998);
- DFO's Measures to avoid causing harm to fish and fish habitat (<http://www.dfo-mpo.gc.ca/pnw-ppc/measures-mesures/measures-mesures-eng.html>) and
- Fish passage guidelines and other applicable guidelines and Fact Sheets

Construction

The project will encompass three parts:

1) Access:

The first phase of the project is accessing the bridge from either side. This work will consist of widening the current T'railway to accommodate equipment.

2) Demolition and Disposal:

The Contractor shall submit a demolition plan for the old trestle to the Resident Engineer/Senior Environmental Planner for review and approval prior to commencing demolition work. The Contractor shall ensure that all waste material from the trestle demolition is disposed of in accordance with the *Environmental Protection Act, SNL2002 CHAPTER E-14.2* and prior approval by the Department of Environment and Climate Change. The Contractor's Demolition Plan shall clearly demonstrate that there is compliance with all environmental requirements for the project and adhere to the Contractor's Responsibilities – Regulatory Agencies Section 805.

3) Reinstatement:

The final phase of the project is the reinstatement phase. This work will consist of grading the disturbed river banks to a 1.5:1 slope, installing hydraulic rip rap to combat erosion, and installing barriers and warning signage on either side of the removed structures. All residential land will be reinstated to its original condition.

The potential sources of pollution during construction would be limited to the possible siltation of the river during bridge demolition and stabilization. To prevent siltation within the river during construction, the Contractor shall use the mitigation in the Specification book, Sections 815, 816, 817, 818, and 845.

In addition, the potential exists for hydrocarbon spillage from temporary fuel storage facilities. Contractors will be advised of the environmental requirements for stream crossings, hydrocarbon spill reporting, and the necessity of strict compliance.

Owner's Policy (Division 8, General Specifications Book, 2011)

To ensure protection of the environment, the work at all times shall be subject to inspection by the staff of relevant municipal, provincial and federal agencies. Normally, all inspections other than by the Owner's Representative will be arranged in advance through the Owner's Representative. Any specific matters relating to environmental protection will be dealt with between the Contractor and the Owner's Representative.

Any violations of environmental permits or authorizations or any environmental related incidents which are observed by inspectors representing regulatory agencies are to be reported by them prior to leaving the site to the Owner's Representative. Except in emergency situations, environmental protection measures required by other agencies must be approved by the Owner's Representative prior to implementation by the Contractor.

It is Owner's policy to protect the environment along the route of the project, in areas adjacent to the route, and in associated work areas such as pit or quarry sites. DTI is committed to cost-effective environmental protection measures that will prevent serious or irreversible environmental damage through the planning and implementation phases of the project.

Protection of Vegetation and Wetlands

The Contractor shall be made aware that the work required in and around water crossings shall be performed with due care and caution so as to prevent undue disturbance to adjacent vegetation and the environment from construction activities and off Right Of Way travel (Section 850). Immediately following and during some construction activities, the Owner's Representative may identify areas requiring seeding/sodding or stabilization by a method to prevent erosion. Damage or disturbance of vegetation and/or wetlands outside the ROW shall be re-vegetated and/or restored to the satisfaction of the Owner's Representative at the Contractor's expense (Section 855).

Storage and Handling of Fuels and Other Hazardous, Toxic, or Dangerous Material

There is no expected fuel or hydrocarbon storage at the project site. Fuel will be brought in by truck and maintenance will be carried out off-site. In the case of storage within the project site it will fall under GAP regulations as can be seen below.

All storage tank systems, if used, must be registered under and in compliance with Newfoundland Regulation 58/03, The Storage and Handling of Gasoline and Associated Products Regulations, 2003, before commencing operation. Registration does not apply to storage tank systems of a capacity less than 2500 liters that are connected to a heating appliance. Contractors shall supply verification of storage tank registration to the Owner's Representative prior to the commencement of work (Section 820).

Contractor Environmental Mitigation Plan

A Contractor Environmental Mitigation Plan (**CEMP**), completed by the Contractor and approved by DTI before work commences, is required for this project.

Elements required in a **CEMP** are:

- Pre-construction planning, including the identification project-environmental interactions (e.g., Valuable Ecosystem Components including: public and worker safety, wildlife, habitat, plants, resource users, etc.);
- Detailed environmental mitigation measures to avoid negative or irreversible environmental impacts;
- Contingency plans for unplanned events;
- List of DTI and Contractor contacts and reporting numbers; and
- Decommissioning Plan that includes site rehabilitation measures.

The potential for adverse environmental impacts during construction will be minimized as all construction activities will be undertaken in accordance with the environmental requirements of the Department of Transportation Specification Book for transportation projects.

Prohibitions

The following are directives for the Owner and Contractor in carrying out this project. Reference is also provided to the Section where this prohibition is located in Division 8.

- Contractors, Subcontractors, and their personnel shall not harass wildlife or waterfowl or unduly disturb fish (Section 805);
- No pesticides or other products shall be used without prior approval of the Owner and the Department of Environment and Climate Change (Section 810);
- The Contractor shall not wash equipment or containers, nor dump herbicides in or near any fresh or salt water bodies, or at any location where the herbicide may enter a body of water (Section 810);
- No person shall discharge into a body of water any sewage or effluent (Section 815);
- The use of equipment or machinery in a watercourse or water body is not permitted (Section 815);
- The Contractor shall not ford a watercourse without prior approval from the Owner's Representative (Section 815);
- Silted or muddy water is not permitted to be released into any watercourse or water body or into any ditch or areas that lead directly to a watercourse or waterbody (Section 815.07);
- Smoking shall be prohibited within 10 m of a fuel storage area or during refueling operations (Section 820.03);
- Fueling or servicing of mobile equipment shall not be allowed within 100 m of a watercourse, water body, or designated wetlands (Section 820.03);
- The Contractor shall ensure that no servicing or washing of heavy equipment occurs adjacent to watercourses and designated wetlands. Fueling, servicing

or washing of equipment shall not be allowed within 100 m of a watercourse (Section 820.04);

- No waste material shall be deposited in any watercourse or wetland (Section 825.01);
- There shall be no open burning of waste material, slash or grubbing material onsite. Rubber tires, waste oil, or similar material shall not be used to ignite slash or used to maintain the burning operation (Section 835);
- Unnecessary cutting of trees is to be avoided. Care will be taken during construction to prevent damage to trees and shrubs adjacent to the flagged clearing limits which are to remain after construction (Section 850);
- The Contractor shall not use living trees as survey marks and shall not cut blazes or otherwise mark live trees except with removable surveyor's tape and/or tags (Section 850);
- The Contractor shall limit equipment travel to the surveyed right-of-way and existing municipal and provincial roads. Use of equipment of any type is not permitted outside the clearing limits of the right of way without prior approval (Section 850); and
- Should any archaeological remains be encountered, such as stone, bone or iron tools, concentrations of bone, fireplaces, house pits and/or foundations, work in the area of the find shall cease immediately in accordance with the Historic Resources Act (RSNL1990 CHAPTER H-4) (Section 860).

Operation

The removal the trestle is a permanent operation. After the demolition phase, the river banks will be sloped for safety. This measure is aimed at protecting recreational motorists that have become accustomed to the trail.

Occupations

The various types of occupations anticipated for this project include:

- (a) Construction Estimators; 2234
- (b) Construction Managers; 0711
- (c) Structural Engineers; 2231
- (d) Heavy Equipment Operators; 7521
- (e) Heavy Equipment Mechanics; 7312

- (f) Labourers; 7621
- (g) Truck Drivers; 7511
- (h) Senior Environmental Planner 2121
- (i) Co-op Engineering Student

Contract completion is expected to be in late summer to early fall of 2023. There is an estimate of approximately 10-20 general construction workers during the course of building. All of the above could change depending on the Contractor and when tender is awarded. Numbers and duration of employment of individuals can't be determined as the winning bidder, the Contractor, has the responsibility of choosing their own employees. This occurs after the project goes to tender, which takes place only after the project receives approval from the EA process.

Project-related Documents

- Contractor Environmental Mitigation Plan.
- Department of Transportation and Infrastructure Specifications Manual

APPROVAL OF THE UNDERTAKING

The following is a list of the permits, licences, approvals that may be necessary for this project:

MAJOR REGULATORY APPROVALS BY TYPE AND AGENCY

Type of Permit	Agency
1. Fuel storage & handling	Government Service Centre
2. Solid waste disposal	Government Service Centre

3. Commercial Cutting	Fisheries and Land Resources
4. Environmental Assessment	Municipal Affairs and Environment

SCHEDULE

The Department of Transportation and Infrastructure would like to complete the requirements of the Environmental Assessment Act and seek approval for the project as soon as possible. A tender call could take place in August of 2023 with construction starting shortly after.

FUNDING

The project will cost approximately \$1,000,000 and will be funded by the Provincial Government under Parks NL.



Fig. 1: Provincial Location of Project



Fig. 2: Broad View of Project Site



Fig. 3: Close Up of Project Site



Fig. 4: Main Gut Trestle Upstream



Fig. 5: Main Gut Trestle Downstream



Fig. 6: Main Gut Trestle