

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

ENVIRONMENTAL ASSESSMENT

**FOR THE DEMOLITION OF THE EXISTING
BRIDGE AND CONSTRUCTION OF A NEW
BRIDGE ON
CONNE RIVER
ROUTE 360**

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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, NF
A1B 4J6

iii. Chief Executive Officer

Cory Grandy
Deputy Minister
(709) 729-3676

iv. Approval for Environmental Assessment Submission



Dan Michielsen
Assistant Deputy Minister
Assistant Deputy Minister of Transportation and Infrastructure
(709) 729-3796

Sept 20/2023
Date

v. Principal Contacts for the Purpose of Environmental Assessment

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Highway Design and Construction
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THE UNDERTAKING:

(i) Name of the Undertaking

This submission is for the demolition of the current deteriorated bridge and construction of a new bridge for Route 360. Its location falls on Conne River, a scheduled salmon river approximately 17.23 km northeast of the community of Conne River and 700 meters southwest of the intersection of Routes 360 and 361.

(ii) Nature of the Undertaking

The construction of a permanent bridge on Conne River on Route 360. The new bridge will be constructed downstream and the existing bridge will left opened to traffic during construction. Once the new bridge is constructed and opened to traffic the existing bridge will be removed.

(iii) Purpose / Rationale / Need for the Undertaking

The purpose of this project is to replace the aged and deteriorated bridge on Conne River.

Description of the Undertaking

Geographic Location

The project location is on Route 360 at the crossing of Conne River. The coordinates are Northing:47.963192, Easting:-55.609419.

There are no additional routing alternatives to replacing the bridge. It is an essential link on Route 360 and any alternative would not be feasible.

Physical Features.

As Conne River is a Scheduled Salmon River, detailed design work and existing environmental conditions determine the type of structure which will be required and what modifications have to be incorporated into the structure to allow for the necessary fish passage and environmental protection. The existing environment at the site consists of riffle/cascade habitat upstream and a pool with cascades at the tail below to approximately 75 meters downstream. The site of the crossing was previously disturbed with the installation of the original bridge and has regenerated to a young deciduous forest. It empties into Bay d'Espoir 9.2km downstream. It is within part of the Central Newfoundland Forest Ecoregion, Twillick Steady subregion. Fish species include Atlantic salmon, brook trout, three-spined stickleback, and American eel. Moose, snowshoe hare, muskrat, otter, mink, black bear, beaver and lynx occur throughout this subregion. Caribou belonging to the Middle Ridge herd can be found here occasionally. At rare occasions caribou from the Sandy Lake/Gray River herd from the western Maritime Barrens sections also appear in this region.

Potential receptors include travelers on Route 360 particularly from Hermitage and Harbour Breton to the Trans Canada Highway Route 1. The town of Conne River is approximately 15.5 km southwest of the crossing.

The area needing to be cleared consists of a mix of deciduous and coniferous trees and other herbaceous plants. The reach of the stream is a migration corridor (Beak Type 4) located at the existing bridge location. The substrate consists of pebbles,

cobble, rubble, and boulders upstream and a deep pool surrounded by bedrock downstream of the crossing.

The Department of Transportation and Infrastructure (DTI) will consult with the Water Resources Division of the Department of Environment and Climate Change to ensure that the best available data is utilized to design the bridge. The Water Resources Division's Environmental Guidelines for work around watercourses will be used during the design and construction phases.

The bridge will be designed and constructed in consultation with Fisheries and Oceans Canada (DFO). A qualitative assessment of fish habitat along upstream and downstream areas adjacent to the crossing will be carried out. The bridge will be designed and constructed to have increased flow capacity and minimal impact on fish and fish habitat and in accordance with:

- 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-ppe/measures-mesures/measures-mesures-eng.html>) and
- fish passage guidelines and other applicable guidelines and Fact Sheets

Construction

Existing/Proposed Structure:

The existing structure was built in 1971 and is a single span, pre-stressed concrete girders structure with concrete abutments with a piled foundation in the substructure. The width of the existing travel way is 10m. The structure is located on Route 360, 15 km to the north of Conne River. The intent of this project is to replace the existing bridge with a new one downstream. The new bridge width will be 12.1m wide with no sidewalks. It will be a fully integral bridge – therefore no bearings or expansion joints which reduces maintenance and increases life expectancy of the bridge. The abutments will be out of the water, so we would expect minimal instream work to occur. The new bridge has been designed to accommodate a 1:100 year flood including climate change effects with more than

1m freeboard.

The Contractor shall submit a demolition plan for the old bridge to the Resident Engineer/Senior Environmental Planner for review and approval prior to commencing demolition work. Demolition and removal of the existing structure shall be carried out such that no significant debris enters the river. Busting of the existing structure while in place shall not be permitted. The Contractor shall ensure that all waste material from the bridge 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.

All work under this item will be in accordance with Section 919.04 of the Departments Specifications Book, MAINTENANCE OF TRAFFIC, except where superseded by the requirements of this or another Supplementary General Conditions.

Fording or moving equipment through the river, or across any other watercourse, will be strictly prohibited. Temporary culverts or temporary bridging are preferred at such locations where frequent fording would be required.

Bridge construction will meet S6-19, Geometric Design Guideline for Canadian Roads 2019 standards and the design load is CSA S6-19. The Department of Transportation and Infrastructure will be improving upon the hydrology of this crossing by increasing the opening (end area) and raising the grade of the new permanent structure to allow for 100 year flooding projections. It will be performed by contract forces. The various phases will involve:

- (a) field surveys;
- (b) new crossing installation;
- (c) demolition of old bridge
- (d) clean-up and rehabilitation.

The potential sources of pollution during construction would be limited to the possible siltation of the river during subgrade construction. To prevent siltation within the river during construction the contractor shall use the mitigation in the

Specification book, Sections 815 Protection of Watercourses and Water Bodies, 816 Silt Fence, 817 Check Dam Sediment Trap, 818 Floating Silt Curtain/Turbidity Barrier and 845 Equipment Operation and Prevention of Erosion and Siltation (<https://www.gov.nl.ca/ti/hdc/highway-specification-book/division-8/>). In addition, the potential exists for hydrocarbon spillage from temporary fuel storage facilities. Contractors will be advised of the environmental requirements for stream crossings and for 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 Engineer will be arranged in advance through the Engineer. Any specific matters relating to environmental protection will be dealt with between the Contractor and the Engineer.

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 Engineer. Except in emergency situations, environmental protection measures required by other agencies must be approved by the Engineer prior to implementation by the Contractor.

It is Owner's policy to protect the environment along the route of the project, in areas adjacent 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 Engineer 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 Resident Engineer at the Contractor's expense (Section 855).

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

Typically fuel is brought in when needed and storage tanks aren't used. If used, all storage tank systems 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 litres that are connected to a heating appliance. Contractors shall supply verification of storage tank registration to the Engineer 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 Resident Engineer (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 leads 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 bridge is a permanent operation. Winter maintenance will consist of snow clearing and the application of sand and salt for ice control.

The original bridge will serve to allow traffic to continue during the construction of the new bridge. It will be removed once the new bridge is open to traffic.

Occupations

The various types of occupations anticipated for this project include:

- (a) Civil Engineers; 2130
- (b) Structural Engineers; 2231
- (c) Engineering Technicians; 2231
- (d) Road Surveyors; 2154
- (e) Heavy Equipment Operators; 7521
- (f) Drillers and Blasters; 7372
- (g) Carpenters; 7271
- (h) Heavy Equipment Mechanics; 7312
- (i) Labourers; 7621
- (j) Truck Drivers; 7511
- (k) Concrete Finishers; 7282
- (l) Concrete Technicians; 7282
- (m) Material Technicians and Engineers; 2231
- (n) Steel Erectors. 7236
- (o) Senior Environmental Planner 2121

Contract completion is expected to be July 31, 2025. There is an estimate of approximately 50-100 general construction workers during the course of building. Specialties may include 1-2 welders (2 weeks estimated), 5-10 rebar tiers (1 month estimated), 1-2 crane drivers (2 months estimated). 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
Stream crossing approvals	Dept. of Fisheries & Oceans
Stream crossing approval	Water Resources Division
Fuel storage & handling	Government Service Centre
Solid waste disposal	Government Service Centre
Commercial Cutting	Fisheries, Forestry, and Agriculture
Environmental Assessment	Environment and Climate Change

SCHEDULE

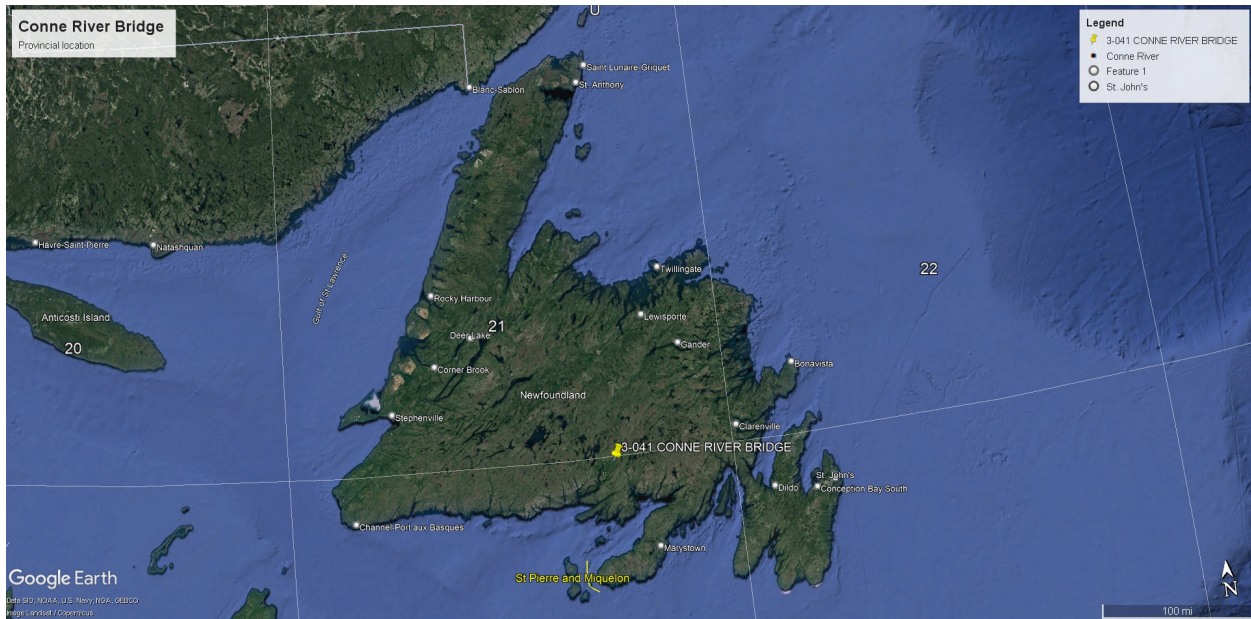
The Department of Transportation and Infrastructure would like to complete the requirements of the Environmental Assessment Act and seek approval for the project by 2023 10 31. A tender call could take place in winter of 2023 with construction starting shortly after.

FUNDING

Due to the tendering process and competition between contractors with the costs involved the Department of Transportation and Infrastructure isn't in the position to reveal the potential cost of the project.

Appendix A

General Project Details



Map 1: Location on Island



Map 2: Broad view of site



Map 3: Close-up of Bridge Site



Photo 1: Upstream



Photo 2: Downstream