

Environmental Assessment Approval

Approval Date: **JAN 29 2019**

Highway 104 Sutherlands River to Antigonish Project

Department of Transportation and Infrastructure Renewal

Sutherlands River to Antigonish, Pictou and Antigonish Counties, Nova Scotia

Terms and Conditions for Environmental Assessment Approval

1 Definitions

- 1.1 Approval means the environmental assessment (EA) Approval terms and conditions, which relates to the Approval Holder and their Project situated between Sutherlands River and Antigonish.
- 1.2 Environment Act means Environment Act 1994-95, c.1, s.1, and includes, unless the context otherwise requires, the regulations made pursuant to the Act, as amended from time to time.
- 1.3 Department means the Department of Environment (unless otherwise specified in the Approval conditions), and the contact for the Department for this Approval is: Pictou and Antigonish regional offices, Regional Inspectors.
- 1.4 Minister means the Minister of Environment.

2 Scope

- 2.1 Project means the Highway 104 Sutherlands River to Antigonish Project described in the EA Registration Information. Registration Information means the Registration Document submitted to the Department during the EA review.

3 General

- 3.1 The Approval Holder shall, within two years of the date of issuance of this Approval, commence work on the Project unless granted a written extension by the Minister.

- 3.2 The Approval Holder shall provide written notification to the Department of the commencement date of the Project, at a minimum 30 days prior to the commencement.
- 3.3 The Approval Holder shall provide to the Department a concordance table detailing the status of the EA terms and conditions on January 31 of each year until released in writing by the Department.
- 3.4 Any proposal by the Approval Holder for expansion, modification or relocation of any aspect of the Project from that proposed in the Registration Information shall be submitted to the EA Branch for review and may require an EA.
- 3.5 Nothing in this Approval relieves the Approval Holder of the responsibility for obtaining and paying for all other licenses, permits, approvals or authorizations necessary for carrying out the Project which may be required by municipal by-laws or provincial or federal legislation. The Minister does not warrant that such licenses, permits, approvals or authorizations will be issued.
- 3.6 The Approval Holder shall not transfer, sell, lease, assign or otherwise dispose of this Approval without the written consent of the Minister. The sale of a controlling interest of a business or a transfer of this Approval from a parent company to a subsidiary or an affiliate is deemed to be a transfer requiring consent.
- 3.7 If there is a discrepancy between the Registration Information and the terms and conditions of this Approval, the terms and conditions of this Approval shall apply.
- 3.8 Upon any changes to the Registry of Joint Stock Companies information related to the Approval Holder, the Approval Holder shall provide a copy to the Department within 5 days of the changes.
- 3.9 Where a timeline is associated with a condition(s) of the Approval, the Approval Holder shall fulfil the requirements of the condition(s) within the prescribed timeline, unless otherwise authorized in writing by the Department.
- 3.10 The Approval Holder shall immediately notify the Department of any incidents of non-compliance with this Approval.
- 3.11 The Approval Holder shall bear all expenses incurred in carrying out the environmental management and monitoring required under the terms and conditions of this Approval.

- 3.12 Unless specified otherwise in this Approval, all samples required to be collected by this Approval shall be collected, preserved and analyzed, by qualified personnel, in accordance with recognized industry standards and procedures that are deemed acceptable to the Department.
- 3.13 The Approval Holder shall ensure that this Approval, or a copy, is present at the Project site while personnel are on site and that personnel directly involved in the Project are made fully aware of the terms and conditions which pertain to this Approval.
- 3.14 The Approval Holder shall update and/or revise any of the plans, programs or other documents required in this Approval to reflect the progressive development of and/or changes to the Project at a schedule acceptable to, or upon the request of, the Department.
- 3.15 Based on the results of the monitoring plans required in this Approval, the Approval Holder shall make necessary modifications to mitigation plans and/or changes to Project operations to prevent unacceptable environmental effects, as required by the Department.
- 3.16 Where a condition of this Approval requires the Approval Holder to consult a particular party or parties regarding the content of a document, the Approval Holder shall: provide a written notice to each such party inviting comments on the document within a reasonable timeframe, provide a written explanation to each party how the comments are addressed and considered, as well as maintain a record of consultation with each party and provide a copy of such consultation to the Department.

4 Surface Water Resources

- 4.1 The Approval Holder shall not conduct any Project activities, or removal of vegetation within 30 metres of a watercourse and/or a wetland unless otherwise authorized in writing by the Department.
- 4.2 Refueling shall not be conducted within 30 metres of any surface water resource.
- 4.3 The Approval Holder, as part of the application for the Part V approval under the Environment Act (namely the watercourse alteration approval), shall provide written information to address the following points, and submit them to the Department for review and acceptance:
 - a) clarification related to the potential extent of the watercourse removals, diversions, and re-alignments, associated surface water quantity impacts, as well as any necessary mitigations;

b) clarification of the impacts of the proposed re-alignment of the section of the Highway 104 between Barney's River and James River and the proposed highway decommissioning activities on surface water quantity, as well as any necessary mitigations;

c) confirmation that construction activities related to the Project will consider potential impacts to upstream and downstream water users, and any necessary mitigations; and

d) assessment of the potential upstream and downstream impacts associated with the Project, particularly related to flow conditions and flooding, and any necessary mitigations.

4.4 The Approval Holder, as part of the application for the Part V Approval under the Environment Act (namely the wetland alteration approval), shall develop a wetland compensation plan in accordance with the Nova Scotia Wetland Conservation Policy. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.

4.5 The Approval Holder, as part of the application for the Part V Approval under the Environment Act (namely the wetland alteration approval), shall develop a wetland monitoring plan in consultation with the Department. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.

4.6 Prior to commencement of the Project, the Approval Holder shall submit a surface water monitoring plan including sampling locations, parameters and frequency to the Department for review and acceptance. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.

4.7 Prior to commencement of the Project, the Approval Holder shall submit an erosion and sedimentation control plan to the Department for review and acceptance. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.

4.8 Prior to operation of the Project, the Approval Holder shall provide details of a salt management plan that include specific details on how the Project operations phase is designed to protect nearby water resources. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.

5 Groundwater Resources

- 5.1 Prior to commencement of the Project, the Approval Holder shall provide the Department a standardized baseline survey report of existing water supply wells within 500 meters of the centerline of the new highway alignment. The pre-construction survey report shall include detailed information about the water well supply in addition to water samples collected and analyzed for total and fecal coliform bacteria, pH, general chemistry and metals. The survey results are to be mapped, tabulated and compared to relevant regulations and guidelines.
- 5.2 Prior to any blasting, the Approval Holder shall provide for review and acceptance, an updated blasting plan. The plan shall include an updated pre-blast survey for structures and water wells within 800 metres of the point of the blast, a detailed blast monitoring plan, and a full blast damage response policy.
- 5.3 Prior to operation of the Project, the Approval Holder shall develop a comprehensive pre-construction and post-construction well water quality, quantity and water level monitoring plan that is carried out for a minimum 5-year period unless otherwise approved by the Department. The Plan shall include the following points, and the Approval Holder shall implement the plan once the plan is deemed acceptable by the Department:
 - a) a description and a map showing the pre-construction and post-construction water wells to be included in the water well monitoring program; and
 - b) a table identifying the name, location, monitoring frequency and monitoring parameters (minimum water quality sampling of coliform bacteria, general chemistry and metals) for each water well monitoring site.
- 5.4 Prior to operation of the Project , the Approval Holder shall submit a water supply contingency plan acceptable to the Department, and the plan shall include the following to respond to potential Project impacts on water wells: reference to the post-construction monitoring plan and how the results of that plan will be used, how water well complaints will be processed, what situations will trigger corrective action, the main potential corrective actions proposed to address any water quantity and water quality issues and how disputes will be resolved.

The plan shall specifically address the provision for protected, non-interrupted supplies for potentially affected business and registered public drinking water supply owners. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.

- 5.5 The Approval Holder, at their expense, shall replace any water supply which has been lost or damaged as a result of Project operations, as authorized and required by the Department.

6 Flora and Fauna

- 6.1 Prior to commencement of the Project, the Approval Holder shall provide Nova Scotia Department of Lands and Forestry (DLF), Wildlife Division with digital way points and shape files revealing precise locations for wetlands and species listed under the Species at Risk Act (SARA), Endangered Species Act (ESA), and/or all S1, S2 and S3 listed species under the Atlantic Canada Conservation Data Center, identified during field work within the area of the Project. The date of the above noted field data shall also be provided to DLF. The Approval Holder shall provide written notification to the Department that the files have been provided to DLF.
- 6.2 The Approval Holder shall develop a wildlife management plan in consultation with DLF, Wildlife Division and Environment and Climate Change Canada, to address the following points:
- a) measures to protect Wood Turtles (*Glyptemys insculpta*) in accordance with DLF's Special Management Practices for this species;
 - b) measures to protect Black Ash (*Fraxinus nigra*) and Blue Felt Lichen (*Degelia plumbea*);
 - c) measures to protect bats by inspecting bridges and large culverts for roosting bats prior to any maintenance or removal work;
 - d) measures to protect raptors and their nests to be initiated prior to April 15 of every year;
 - e) measures to protect Canada Warbler (*Cardellina canadensis*), Barn Swallow (*Hirundo rustica*), Olive-Sided Flycatcher (*Contopus cooperi*), Eastern Wood-Pewee (*Contopus virens*), Evening Grosbeak (*Coccothraustes vespertinus*), Common Nighthawk (*Chordeiles minor*), Bank Swallow (*Riparia riparia*), Bobolink (*Dolichonyx oryzivorus*), and Rusty Blackbird (*Euphagus carolinus*);

- f) measures developed for identification, communication and mitigation for at-risk species (listed under SARA or ESA), if at-risk species were discovered while undertaking Project related work; and
- g) measures to manage non-native (alien invasive) plant species.

Prior to commencement of the Project, the Approval Holder shall ensure the wildlife management plan is deemed acceptable by the Department. The Approval Holder shall implement the plan immediately following the acceptance of the wildlife management plan by the Department.

- 6.3 Prior to commencement of the Project, the Approval Holder shall develop a plan regarding the design of wildlife crossing structures, in consultation with DLF, Wildlife Division. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.
- 6.4 The Approval Holder shall clear vegetation outside of the breeding season for most bird species (April 15 to August 31), unless otherwise authorized in writing by the Department. Vegetation clearing shall be recorded in a daily log that shall be available for review by the Department indicating the date and time of the clearing operation and the contractor.

7 Air Quality

- 7.1 Prior to commencement of the Project, the Approval Holder shall develop a plan to suppress dust associated with the Project during the construction phase. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.
- 7.2 At the request of the Department, the Approval Holder shall develop and implement an air quality and/or dust monitoring plan. This plan shall include, but not be limited to, sampling locations, parameters, monitoring methods, protocols and frequency.
- 7.3 At the request of the Department, the Approval Holder shall monitor noise levels.

8 Archaeological and Heritage Resources

- 8.1 Prior to commencement of the Project, the Approval Holder shall develop an archaeology management plan in consultation with Nova Scotia Department of Communities, Culture and Heritage (CCH), to address 9 recommendations outlined in Section 8.2.5.1 of the Registration Information for the Project. The Approval Holder shall implement the plan once the plan is deemed acceptable by the Department.
- 8.2 Prior to commencement of the Project, the Approval Holder shall complete a formal shovel testing program in consultation with CCH to confirm the presence or absence of archaeology and heritage resources in the Project impact area. The Approval Holder shall submit the shovel testing results immediately to CCH for review and acceptance, once the results become available.
- 8.3 Unless otherwise approved by the Department, the Approval Holder shall not undertake any construction activities related to the Project within 5 meters of the French River Cemetery and associated field (namely the edges of the cleared field associated with the cemetery). The area of the cemetery and the associated field is shown on page 53 of the Archaeological Resource Impact Assessment study (dated September 26, 2018) prepared for this Project.
- 8.4 The Approval Holder shall cease work and contact the Special Places Coordinator, CCH immediately upon discovery of an archaeological site or artifact unearthed during any phase of the Project. If the find is of certain or possible Mi'kmaq origin, the Approval Holder shall also contact the appropriate Mi'kmaq representatives as advised by CCH.

9 Public Engagement

- 9.1 Prior to commencement of the Project, the Approval Holder shall establish a complaint resolution plan for receiving and responding to complaints related to the Project, including a reporting system which records and documents steps taken to determine the cause of complaint and the corrective measures taken to alleviate the cause and prevent its recurrence. The Approval Holder shall implement the plan once deemed acceptable by the Department.
- 9.2 Prior to commencement of the Project, the Approval Holder shall appoint a contact person designated to deal with complaints and shall provide the contact information to the Department.

9.3 At the request of the Department, the Approval Holder shall develop and implement a plan for the formation and operation of a Community Liaison Committee (CLC) including terms of reference, which meets the Department's Guide for the Formation and Operation of a Community Liaison Committee. The Approval Holder shall operate the CLC for the duration of the Project or until released in writing by the Department.

10 Engagement with the Mi'kmaq of Nova Scotia

10.1 The Approval Holder shall develop and implement a Mi'kmaq Communication Plan for the Project, which will include a process for communicating Project details and seeking input from the Mi'kmaq community.

10.2 The Approval Holder shall complete a Mi'kmaq Ecological Knowledge Study for the Project, and submit the completed study to the Department, and the Kwilmu'kw Maw-klusuaqn Negotiation Office.

11 Contingency Plan

11.1 Prior to commencement of the Project, the Approval Holder shall develop a contingency plan which meets the Department's Contingency Planning Guidelines. The plan shall provide prevention measures and address accidental occurrences including but not limited to: spills of hydrocarbons or other hazardous materials, failure of erosion and sediment control

measures, fires, and vehicular collisions. The Approval Holder shall implement the plan once deemed acceptable by the Department, over the lifetime of the Project.



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