

PERMIT FOR ACTIVITIES IN A PROTECTED PUBLIC GROUNDWATER SUPPLY

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 61, 48

Date: **AUGUST 27, 2024**

File No: **NDOM24-005**
Permit No: **GW13891-2024**

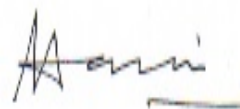
Permit Holder: **NL Hydro
P.O. Box 12400
500 Columbus Drive
St. John's NL A1B 4K7
trevorbutton@nlh.nl.ca**

Attention: **Trevor Button**

Re: **NL Hydro - Culvert Replacement, St. Alban's Wellhead Protected Area**

Permission is hereby given for : **the replacement of an existing culvert with 1-815mm culvert on Upper Salmon Access Road, within the St. Alban's Wellhead Protected Area, with reference to applications dated July 7, and July 11, 2024.**

- This Permit does not release the Permit Holder from the obligation to obtain appropriate approvals from other concerned municipal, provincial and federal agencies.
- This Permit is subject to the terms and conditions indicated in Appendices A and B (attached).
- It should be noted that prior to any significant changes in the design or installation of the proposed works, or in event of changes in ownership or management of the project, an amendment to this Permit must be obtained from the Department of Environment and Climate Change under Section 49 of the *Water Resources Act*.



(for) MINISTER

APPENDIX A
Terms and Conditions for Permit

Development in WPWSA

1. All persons working on this project must be informed that they are within a Wellhead Protected Water Supply Area and must be made aware of all conditions of this Permit. A copy of this Permit must be on site during construction.
2. All equipment must be in good working order with no leaking fuel or oil. Refueling of heavy equipment is not allowed on site.
3. Any spills of gasoline, fuel or oil, regardless of volume, must be reported immediately to the Environmental Scientist at (709) 729-2539. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at (709) 772-2083 (call collect) or 1-800-563-9089.
4. All operations must be carried out in a manner that minimizes damage to land, vegetation and water courses, and which prevents pollution of water bodies. Please note that groundwater aquifers are considered water bodies.
5. The use of treated wood, including the use of treated utility poles, is limited to wood protected by copper azole preservative.
6. During construction and after the project is complete, the use and/or storage of fertilizers, pesticides, herbicides, petroleum solvents, chlorinated solvents, and preservatives is limited or restricted. Please contact the Environmental Scientist at (709)729-2539 for more information.
7. The parking, storage, and maintenance of heavy equipment is prohibited.
8. Equipment storage and maintenance facilities associated with this project must not be located within the Wellhead Protected Water Supply Area, and all maintenance other than emergency repairs must be performed outside the Wellhead Protected Water Supply Area.
9. Bulk fuel storage, including home heating fuel, is prohibited.
10. The use and/or storage of fertilizers, pesticides, herbicides, petroleum solvents, chlorinated solvents, and preservatives are prohibited.
11. Fuel/gasoline storage is limited to one 23 litre (5 Imperial gallon) approved container during both the construction and occupation period of the property. Furthermore, every precaution shall be made to prevent spills, leaks, or other discharges while filling from the container.
12. Liaison must be maintained with the appropriate Municipal Authority and Department official. If there are any specific problems (i.e., fuel spill or other potential water quality impairment), the Town Manager/Clerk and/or Mayor must be notified immediately, as well as the Environmental Scientist at (709)729-2539.
13. Officials of the Department and the appropriate Municipal Authority, Operator, or Wellhead Protection Committee may visit the site from time to time to ensure compliance with this Permit.

14. Any areas adversely affected by this project must be restored to a state that resembles the local natural conditions or must be grass covered. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if necessary in the opinion of the Department.
15. The Department reserves the right to require the proponent to cover all costs incurred by the proponent or this department that is associated with any water quality monitoring program that may be ordered by the Minister for the purpose of ensuring that the water quality is maintained within acceptable guidelines.
16. Any changes in the Town of St. Alban's Wellhead Protected Water Supply water quality resulting directly from this project, rendering the water unsuitable as a public water supply, are the responsibility of the proponent. The Minister may order the proponent to provide an alternate source of potable water to the affected community until water quality returns to an acceptable level.
17. A water quality monitoring program is not required at this time. However, the Department reserves the right to require that the proponent sample, analyze, and submit results of water quality tests, for the purpose of ensuring that the water quality of the surrounding aquifer(s), is maintained within acceptable guidelines. All analyses must be undertaken by a CALA accredited laboratory.
18. The permit holder, contractor, subcontractor or other persons associated with this project shall not cross, operate in, or disturb any body of water, either directly or by means of installing a bridge or culvert, without first obtaining a permit under Section 48 of the Water Resources Act SNL 2002 cW-4.01
19. Any significant changes in the permitted operations, developments or activities other than those specified in the application must be submitted in writing to the Department, and permitted in the form of an Amendment to this Permit, before they are undertaken.
20. Renewal of this permit shall require the submission of a written application, on the prescribed form, to the Department, and is subject to review by this Department and the appropriate Municipal Authority, Operator or Wellhead Protection Committee.
21. The permitted development activity is located at or near: 47.881628N, 55.859570W.
22. This permit is valid for one (1) year from the date of issuance.
23. The well owner is responsible for compliance with this permit.

Culvert Design

24. A 6.096 metre long - 815 mm diameter steel culvert may be installed across an unnamed stream on Upper Salmon Access Road near St. Alban's.
25. The crossing structure must provide adequate capacity to safely discharge flood flows without causing backwater effects upstream or increased flow velocity downstream.

26. To safely convey peak flows the culvert installations must be designed according to the following hydraulic criteria:

Crossing Name / No.	Design Return Period (years)	Design Flow (m³/s)	Minimum Size (mm)	Number of Pipes	Length (m)
Replacement of culvert across an unnamed stream on Upper Salmon Access Road near St. Alban's	50	0.19	815	1	6.096

Culvert Installation

27. Drainage ditches must collect and transport surface runoff in a manner that does not cause flooding, erosion or sedimentation of adjacent land or receiving waters.
28. Inlet and outlet areas of culvert installations must be adequately protected from erosion by placing rip-rap, fitted stone, or concrete headwalls.
29. Culvert installations must follow the stream channel gradient to the maximum extent possible and placed in line with the direction of the main flow to minimize disturbance to the channel. Culverts must not disrupt the flow of water or cause ponding at the upstream side of the installation.
30. Where pumping is used to bypass flow, cofferdams must be installed both above and below areas of construction. The Permit Holder must provide pumps with sufficient capacity to prevent washout of cofferdams.
31. Cofferdams must be properly designed and constructed of suitable materials to prevent leakage and to resist loss of any material as a result of erosion. Cofferdams must be removed upon completion of their intended function. All material must be removed carefully to prevent disturbance of the water body and to prevent water quality degradation.
32. All work involving minor alteration to the stream channel to permit culvert placement must be carried out at a time of low flow, and in a manner that prevents downstream siltation and unnecessary alteration of the channel.
33. Grading and finishing of roadways or road embankments must not cause damage to culverts or allow road material to enter the watercourse.
34. Roadside embankments near the watercourse must be adequately protected from erosion by sodding, seeding or placing of rip-rap.
35. Culverts must be inspected regularly so that immediate action can be taken to clear blockages caused by ice or debris or to undertake repairs as required.
36. The inlet and outlet of culverts must be clearly marked so that operators of road grading and snow clearing equipment can avoid blocking culverts.

37. Any damage to culverts during installation or due to inadequate capacity and/or improper construction must be reported to this Department. Damaged culverts must be replaced immediately to prevent overtopping, erosion, or flooding.

General Alterations

38. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
39. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
40. Water pumped from excavations or work areas, or any runoff or effluent directed out of work sites, must have silt and turbidity removed by settling ponds, filtration, or other suitable treatment before discharging to a body of water. Effluent discharged into receiving waters must comply with the *Environmental Control Water and Sewage Regulations, 2003*.
41. All operations must be carried out in a manner that prevents damage to land, vegetation, and watercourses, and which prevents pollution of bodies of water.
42. The use of heavy equipment in streams or bodies of water is not permitted. The operation of heavy equipment must be confined to dry stable areas.
43. All vehicles and equipment must be clean and in good repair, free of mud and oil, or other harmful substances that could impair water quality.
44. During the construction of concrete components, formwork must be properly constructed to prevent any fresh concrete from entering a body of water. Dumping of concrete or washing of tools and equipment in any body of water is prohibited.
45. Wood preservatives such as penta, CCA or other such chemicals must not be applied to timber near a body of water. All treated wood or timber must be thoroughly dry before being brought to any work site and installed.
46. Any areas adversely affected by this project must be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if considered necessary in the opinion of this Department.
47. The bed, banks and floodplains of watercourses, or other vulnerable areas affected by this project, must be adequately protected from erosion by seeding, sodding or placing of rip-rap.
48. All waste materials resulting from this project must be disposed of at a site approved by the Department of Digital Government and Service NL.
49. Periodic maintenance such as painting, resurfacing, clearing of debris, or minor repairs, must be carried out without causing any physical disruption of any watercourse. Care must be taken to prevent spillage of pollutants into the water.
50. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
51. Sediment and erosion control measures must be installed before starting work. All control measures must be inspected regularly and any necessary repairs made if damage is discovered.

52. Fill material must be of good quality, free of fines or other substances including metals, organics, or chemicals that may be harmful to the receiving waters.
53. The attached Completion Report (Appendix C) for Permit No. 13891 must be completed and returned to this Department upon completion of the approved works. Pictures must be submitted along with the completion report, showing the project site prior to and after development.
54. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
55. All work must be carried out within the Permit Holder's legal property boundaries.

APPENDIX B
Special Terms and Conditions for Permit

1. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall keep all systems and works in good condition and repair and in accordance with all laws, by-laws, directions, rules and regulations of any governmental authority. The Permit Holder or its agent(s), subcontractor(s), or consultant(s) shall immediately notify the Minister if any problem arises which may threaten the structural stability of the systems and works, endanger public safety and/or the environment or adversely affect others and/or any body of water either in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for all damages suffered by the Minister and Government resulting from any defect in the systems and works, operational deficiencies/inadequacies, or structural failure.
2. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall operate the said Project and its systems and works in a manner which does not cause any water related and/or environmental problems, including but not limited to problems of erosion, deposition, flooding, and deterioration of water quality and groundwater depletion, in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for any and all damages associated with these problems caused as a result of changes, deficiencies, and inadequacies in the operational procedures by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
3. If the Permit Holder or its agent(s), subcontractor(s), or consultant(s) fails to perform, fulfil, or observe any of the terms and conditions, or provisions of this Permit, as determined by this Department, the Minister may, without notice, amend, modify, suspend or cancel this Permit in accordance with the *Water Resources Act*.
4. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) indemnify and hold the Minister and Government harmless against any and all liabilities, losses, claims, demands, damages or expenses including legal expenses of any nature whatsoever whether arising in tort, contract, statute, trust or otherwise resulting directly or indirectly from granting this Permit, systems and works in or outside the said Project areas, or any act or omission of the Permit Holder or its agent(s), subcontractor(s), or consultant(s) in or outside the said Project areas, or arising out of a breach or non-performance of any of the terms and conditions, or provisions of this Permit by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
5. This Permit is subject to all provisions of the *Water Resources Act* and any regulations in effect either at the date of this Permit or hereafter made pursuant thereto or any other relevant legislation enacted by the Province of Newfoundland and Labrador in the future.
6. This Permit shall be construed and interpreted in accordance with the laws of the Province of Newfoundland and Labrador.

File No: **NDOM24-005**
Permit No: **GW13891-2024**

- cc: Town of St. Alban's
Ms. Sandra Cox
P.O. Box 10
St. Alban's, NL A0H 2E0
st.albans@nf.aibn.com
- cc: Groundwater Section File Copy
Groundwater Section
Water Resources Management
Dept. Environment and Climate Change
groundwatersection@gov.nl.ca



Government of Newfoundland and Labrador
Department of Environment and Climate Change
Water Resources Management Division

Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 61, 48

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500 Columbus Drive
St. John's NL A1B 4K7
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Attention: **Trevor Button**

Re: **NL Hydro - Culvert Replacement, St. Alban's Wellhead Protected Area**

Permission was given for : **the replacement of an existing culvert with 1-815mm culvert on Upper Salmon Access Road, within the St. Alban's Wellhead Protected Area, with reference to applications dated July 7, and July 11, 2024.**

I (the Permit Holder named above or agent authorized to represent the Permit Holder) do hereby certify that the project described above was completed in accordance with the plans and specifications submitted to the Department of Environment and Climate Change and that the work was carried out in strict compliance with the terms and conditions of the Permit issued for this project.

Date: _____ Signature: _____

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Environment and Climate Change
Water Resources Management Division
PO Box 8700
St. John's NL A1B 4J6

APPENDIX D
Location Map for Permit

Culvert across an unnamed stream on Upper Salmon Access Road near St. Alban's

