



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

PERMIT FOR DEVELOPMENT

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 39, 48

Date: **SEPTEMBER 19, 2024**

File No: **550-01-02-11-011**

Permit No: **PRO13931-2024**

Permit Holder: **Newfoundland and Labrador Hydro**
500 Columbus Drive
P.O. Box 12400
St. John's, NL, A1B 4K7

Attention: **Mr. Trevor Button**

Re: **Buchans - Buchans Lake PPWSA - Geotechnical Survey - Newfoundland and Labrador Hydro**

Permission is hereby given for : **the completion of a geotechnical survey and associated drilling and test pit excavation in the Buchans Lake Protected Public Water Supply Area (used by the Town of Buchans) with reference to the application dated 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.
- The Permit Holder must obtain the approval of the Crown Lands Administration Division if the project is being carried out on Crown Land.
- 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*.

A handwritten signature in black ink, appearing to read "A. Morris".

(for) MINISTER

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Environment and Climate Change

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APPENDIX A
Terms and Conditions for Permit

PPWSA General

1. 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.
2. 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.
3. All persons working on this project must be informed that they are within a Protected Public Water Supply Area, and must be made aware of all conditions of this Permit. A copy of this Permit must be on site during operations.
4. The attached Completion Report (Appendix C) for Permit No. 13931 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.
5. With the exception of the proposed work outlined in the application, an undisturbed (no cutting or ground disturbance) buffer zone of at least **150 metres** shall be maintained around Buchans Lake, at least **50 metres** around major lakes and ponds and along both sides of all streams and main tributaries running into Buchans Lake, and at least **30 metres** around all ponds, along both sides of all other water bodies including wetlands and field identified streams. Activity or development within these buffer zones is prohibited. All buffer zones must be marked with signs or flagging tape to avoid encroachment into the buffer zones.
6. All waste material is to be collected in refuse containers, and disposed of at an approved waste disposal site outside the Protected Public Water Supply Area in accordance with the *Environmental Protection Act, SNL 2002 cE-14.2*.
7. Equipment storage, maintenance facilities associated with this project, and all maintenance other than emergency repairs must not be located/carried out within the Protected Public Water Supply Area.
8. The Department reserves the right to require that the Permit Holder follow, and cover all costs incurred by the Permit Holder or this department, 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.
9. Officials of the Department and the appropriate Municipal Authority, Operator, or Watershed Management Committee may visit the site to ensure compliance with this Permit.
10. Liaison is to be maintained with the appropriate Municipal Authority and Environmental Scientist. If there are any specific problems (i.e. sedimentation, fuel spill, or other potential water quality impairment), the appropriate Town Manager/Clerk must be notified immediately at (709) 672-3972. The Environmental Scientist must also be notified immediately at (709)292-4280.
11. The felling or disposing of trees, parts of trees, sawdust, bark, logging debris or slash into a water body or upon the frozen surface of a water body is strictly prohibited.
12. Motorized vehicles and fuel powered equipment must not be parked or left unattended within the buffer zones established in Condition 5 of any water body measured from the high water mark.

13. Drainage from roads and other disturbed areas, and all water, runoff or effluent from the site, that is pumped or flows by gravity, shall have silt, sludge, sediment, cuttings, and visible turbidity removed by means of sediment boxes, settling tanks, settling ponds, sumps dug into the ground, filtration or other suitable treatment, to less than or equal to 30 milligrams per litre of Total Suspended Solids (TSS), before being discharged to the environment. More specifically, at the last point of control, the final discharge of all water, runoff or effluent must conform to the limits specified in Schedule A of the Environmental Control Water and Sewer Regulations, 2003, <https://www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm>. It is the responsibility of the Permit Holder to demonstrate, that the final discharge meets the requirement of these Regulations.
14. Treated wood shall not be used in a water body or within buffer zones established in Condition 5 of any water body measured from the high water mark. The use of creosote treated wood anywhere within the Protected Public Water Supply Area is strictly prohibited.
15. The Permit Holder must inspect the site daily, and any water quality impairment related problems are to be reported immediately to the Environmental Scientist at (709)292-4280 and the appropriate Municipal Authority at (709)672-3972.
16. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
17. This Permit is valid for five (5) years from the date of issue. If required, an application for Permit renewal must be submitted prior to the expiry date.
18. Any changes in water quality resulting directly from this project, rendering the water unsuitable as a public water supply, are the responsibility of the Permit Holder. The Minister may order the Permit Holder to provide an alternate source of potable water to the affected community until water quality returns to an accepted level.
19. All vehicles and equipment must be in good working order with no leaking fuel, oil, or other harmful substances that could impair water quality.
20. All stationary motorized equipment and associated fuel tanks shall have metal trays, absorbent pads or impervious liners under them to catch and contain in excess of 110 % of the aggregate volume of any fuel, lubricant and oil.
21. There shall be no drilling or excavation within 150 meters of Buchans Lake during periods of heavy or prolonged precipitation, or when visible runoff is present on site. Open excavations within 150 meters of Buchans Lake shall be monitored until backfilled.
22. Where permits, licences, approvals or authorizations are issued by multiple governments, departments or agencies, in the case of similar conditions, the more stringent of those shall prevail; in the case of conflicting conditions, the Permit Holder shall seek clarification and direction in writing from each of the respective departments or agencies.
23. The Permit Holder is required to ensure that adequate sanitary (bathroom) facilities are available or provided on site. This may be in the form of a portable toilet, chemical toilet, pit privy (outhouse), sub-surface disposal system, or municipal sewer system. If a portable toilet or chemical toilet is used, the waste water must be disposed of in a septic disposal system approved by Service NL, or at an approved waste disposal site, outside the Protected Public Water Supply Area in accordance with the Environmental Protection Act, SNL 2002 cE-14.2. If a pit privy (outhouse) or sub-surface disposal system is used, it must be located outside the required buffers, and be subject to Service NL standards, requirements and approval.
24. The issuance of this permit does not guarantee, nor set precedent, that additional or similar permits or amendments will be issued in this or any other Protected Public Water Supply Area for additional or similar activity or development.

Fuel Storage

25. There shall be no bulk fuel storage associated with this project within the protected water supply area. Fuel shall be brought to the operating area in no more than two (2) 205 litre barrels or one (1) 500 litre slip tank. The Permit Holder is hereby informed that fuel storage and handling requires a separate approval under the *Storage and Handling of Gasoline and Associated Products Regulations*, CNR 775/96.
26. Staff of both the Department of Service NL, and this Department must be informed at least 5 days prior to the excavation and removal of the underground tanks, so that arrangements may be made to conduct an inspection of the area to ensure that there is no soil contamination.
27. Contaminated snow and soil must be removed from the site and disposed of at an approved location outside the protected public water supply area, in accordance with the *Environmental Protection Act, SNL 2002 cE-14.2*.
28. Any spills of gasoline, fuel or oil, regardless of volume, shall be reported immediately to the Environmental Scientist at (709)292-4280 and the appropriate Municipal Authority by calling (709) 672-3972. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at 1-800-563-9089.
29. A complete oil spill clean-up kit must be on site at all times when gasoline or fuel powered equipment is being used or refuelled. The kit must contain the following:
 - One hand operated fuel pump
 - One recovery container such as an empty 205 litre drum
 - One shovel
 - One pick axe
 - Five metres of containment boom
 - Five absorbent pads
 - Twenty-five litres of loose absorbent material
30. Refueling sites shall be located at least 150 metres from any water body or wetland.

Special Conditions

31. All silt, sludge, sediment, cuttings, drilling additives, and drilling mud must be collected, properly disposed of and not permitted to flow freely over the ground into any receiving waterbody (including wetlands). A layered risk mitigation approach is required.
32. The primary layer of risk mitigation, where physical conditions allow, shall consist of the construction of a temporary sump pit. The temporary sump pit shall be constructed on the down-slope side of the drill pad to collect discharge waters and to allow solids to settle out. In areas where it is physically impossible to dig a sump pit, a settling tank will be required. Performance of the sump pit or settling tank during operations and after heavy rainfall events should be monitored on an hourly basis and any issues reported to the Water Resources Management Division of this Department.
33. The secondary layer of risk mitigation shall consist of, but may not be limited to, some combination of additional temporary sump pits, sediment traps, interceptor ditches of sump pit runoff prior to discharge into any waterbody, settling tanks or constructed settling ponds. The design of secondary risk mitigation layers shall be approved by the Environmental Scientist prior to any development activity.
34. Should an accumulated mass of material from the drilling activity be collected by either the primary or secondary risk mitigation layer, the accumulation shall be excavated and deposited in the sump pit prior to rehabilitation.
35. All drill rigs, pumps, generators, other motorized equipment and associated fuel tanks shall have metal trays, absorbent pads or impervious liners under them to catch and contain in excess of 110% of the aggregate volume of any fuel, lubricant and oil.
36. Drilling fluids other than water must be approved by this Department prior to their use.

37. All boreholes shall be sealed with bentonite to prevent any artesian flow.
38. At least seven (7) days advance notice of the beginning and end of the planned drilling operations is required. The municipal authority must be notified at townofbuchans@nf.aibn.com. Any changes in the planned drilling operation must also be communicated in a timely manner, and approved with a subsequent Permit or amendment before being undertaken.
39. Prior to completion of the project, sump pits//test pits/any engineered excavation for the retention of sediment shall be rehabilitated appropriately. Rehabilitation may include backfilling of stockpiled materials such as subsoils and till, re-covering the backfilled site with stockpiled organic cover and any additional organic materials, seeding, or other measures.
40. There shall be no reinjection of silt, sludge, sediment, cuttings, drilling additives, and drilling mud back into the drill hole.
41. In the case of an event that may impact drinking water quality, the Proponent's Contingency Plan shall be followed.
42. All storm runoff shall be diverted away from any engineered excavation for the retention of sediment (e.g. sump, sediment basin, settling pond).
43. The Permit Holder must submit the location of each test pit and borehole to the Department in conjunction with the project completion report.

Geotechnical Testing

44. A water quality monitoring program is not required at this time. However, the Department reserves the right to require that the Permit Holder sample, analyse, and submit results of water quality tests, for the purpose of ensuring that the water quality is maintained within acceptable guidelines. All analyses must be undertaken by a CALA accredited laboratory.
45. The proponent must use existing trails, winter roads or cut lines wherever possible as access routes to limit unnecessary clearing of additional vegetation and prevent soil compaction
46. Monitoring wells and boreholes, when no longer required, must be decommissioned as specified in this Department's policy - **Guidelines for Sealing Groundwater Wells**.
47. The work must meet the requirements of the Environmental Protection Plan (latest approved version) for the project.

General Alterations

48. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
49. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
50. 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.
51. 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.

52. 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.
53. 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.
54. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
55. 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.
56. 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.
57. All work must be carried out within the Permit Holder's legal property boundaries.
58. This licence/permit does not constitute an acknowledgement of interest in any land claims adjacent.

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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.

cc: Ms. Paula Dawe, P.Eng.
Manager, Water Rights, Investigations and Modelling Section
Water Resources Management Division
Department of Environment and Climate Change
P.O. Box 8700
4th Floor, West Block, Confederation Building
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cc: Dave Mercer (Central)
Land Management Specialist
Crown Lands Administration Division
Department of Fisheries, Forestry and Agriculture
davemercer@gov.nl.ca

cc: Fish and Fish Habitat Protection Program
Aquatic Ecosystems Branch
Fisheries and Oceans Canada
P.O. Box 5667
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cc: Mr. Trent Pollett
Environmental Scientist, Drinking Water
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cc: Town of Buchans
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cc: Ms. Deneen Spracklin, P.Eng.
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Water Resources Management Division

Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 39, 48

Date: **SEPTEMBER 19, 2024**

File No: **550-01-02-11-011**
Permit No: **PRO13931-2024**

Permit Holder: **Newfoundland and Labrador Hydro**
500 Columbus Drive
P.O. Box 12400
St. John's, NL, A1B 4K7

Attention: **Mr. Trevor Button**

Re: **Buchans - Buchans Lake PPWSA - Geotechnical Survey - Newfoundland and Labrador Hydro**

Permission was given for : **the completion of a geotechnical survey and associated drilling and test pit excavation in the Buchans Lake Protected Public Water Supply Area (used by the Town of Buchans) with reference to the application dated 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

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Environment and Climate Change

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APPENDIX D
Location Map for Permit



Second Attached Image File

