



Government of Newfoundland and Labrador  
Department of Municipal Affairs and Environment  
Water Resources Management Division

### PERMIT TO ALTER A BODY OF WATER

---

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

Date: **APRIL 02, 2019**

File No: **536-12**  
Permit No: **ALT10196-2019**

Permit Holder: **Muskrat Falls Corporation**  
**350 Torbay Road, Suite 2**  
**St. John's, NL, A1A 4E1**  
**KristaTrowbridge@lowerchurchillproject.ca**

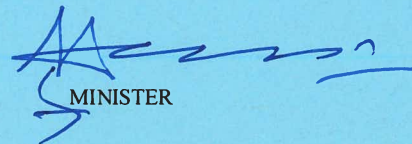
Attention: **Krista Trowbridge**

Re: **Lower Churchill Muskrat Falls - Re-establishment of sedimentation Pond -1**

---

Permission is hereby given for : **the re-establishment of sedimentation pond-1 at the same location constructed under the permit ALT6700-2012, with reference to the application dated March 25, 2019.**

- 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 Municipal Affairs and Environment under Section 49 of the *Water Resources Act*.



MINISTER

**APPENDIX A**  
**Terms and Conditions for Permit**

**Special Conditions**

1. The Proponent shall perform a Water Quality Monitoring Program for the sampling location as detailed in the table below when discharging.

Minimum frequency of sampling shall be as follows:

- When work commences in an area, weekly sampling is required for the first four (4) weeks.
- After four (4) compliant sample sets have been obtained, sampling can be reduced to monthly until an exceedance report is recorded, at which time weekly sampling is required to recommence until four (4) compliant sample sets are obtained.
- During periods of high precipitation. High precipitation is defined as being in excess of 25 millimeters in 24 hours measured as Total Rain at Muskrat Falls Met climate station NLENCL0006.

| Site # | Location                       | Frequency                             | Parameters                         |
|--------|--------------------------------|---------------------------------------|------------------------------------|
| 1      | Outlet of Sedimentation Pond-1 | Weekly/Monthly and High Precipitation | pH, TSS, Nitrate, Nitrite, Ammonia |

The location of Site #1 is highlighted on the Location Map for this Permit attached as Appendix D.

2. The Proponent shall perform a Water Quality Monitoring Program for the sampling location as detailed in the table below.

Water chemistry and metals scan shall be sampled on a quarterly basis not closer than **30 days between samples during open water periods**.

| Site # | Location                        | Frequency | Parameters**                 |
|--------|---------------------------------|-----------|------------------------------|
| 1      | Outlet of Sedimentation Pond-1* | Quarterly | Water chemistry, Metals scan |

\* If no water present at the outlet of the ditch, the sample will be taken at the Sedimentation Pond for characterization.

\*\* See condition #3 for a list of required parameters.

The location of Site #1 is highlighted on the Location Map for this Permit attached as Appendix D.

3. Water Chemistry Analysis Program is as follows:

|                            |  |  |  |   |  |
|----------------------------|--|--|--|---|--|
| <b>General Parameters:</b> | alkalinity, ammonia, calcium, chloride, colour           | conductance, DOC, magnesium, nitrate+nitrite, nitrate, nitrite | orthophosphate, phosphorus, pH, phenolics, potassium, sodium | TDS (calculated), TPH, TSS, turbidity, reactive silica) | carbonate (CaCO <sub>3</sub> ), hardness (CaCO <sub>3</sub> ), bicarbonate (CaCO <sub>3</sub> ), sulphate, sulphide) |
| <b>Metals Scan:</b>        | aluminium, antimony, arsenic, barium, beryllium, bismuth | boron, cadmium, chromium, cobalt, copper, iron                 | lead, manganese, mercury, molybdenum, nickel, selenium       | silicon, silver, strontium, tellurium, thallium, tin    | titanium, uranium, vanadium, zinc  |

**General Alterations**

4. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
5. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
6. 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*.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.
15. 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.
16. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.

17. 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.
18. 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.
19. The attached Completion Report (Appendix C) for Permit No. 10196 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.
20. This Permit is valid for two years from the date of issue. Work must be completed by that date or the application and approval procedure must be repeated.
21. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
22. 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: **536-12**  
Permit No: **ALT10196-2019**

- cc: Amir Ali Khan, Ph.D., P.Eng.  
Manager, Water Rights, Investigations and Modelling Section  
Water Resources Management Division  
Department of Municipal Affairs and Environment  
P.O. Box 8700  
4th Floor, West Block, Confederation Building  
St. John's, NL A1B 4J6  
akhan@gov.nl.ca
- cc: File Copy for Binder
- cc: Kyla Brake  
Environmental Scientist  
Water Resources Management  
Municipal Affairs and Environment  
4th Floor, West Block, Confederation Building  
P.O. Box 8700, St. John's NL A1B 4J6  
kbrake@gov.nl.ca
- cc: Jeff Bannister (Western and Labrador)  
Western and Labrador Regional Lands Manager  
Crown Lands Administration Division  
JeffBannister@gov.nl.ca
- cc: Fisheries Protection Division  
Ecosystem Management Branch  
Fisheries and Oceans Canada  
P.O. Box 5667  
St. John's, NL A1C 5X1  
FPP-NL@dfo-mpo.gc.ca
- cc: Mark Bugden  
Senior Analyst  
Executive Council - Labrador and Aboriginal Affairs  
Aboriginal Affairs  
mbugden@gov.nl.ca





Government of Newfoundland and Labrador  
Department of Municipal Affairs and Environment  
Water Resources Management Division

### Appendix C - Completion Report

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

Date: **APRIL 02, 2019**

File No: **536-12**

Permit No: **ALT10196-2019**

Permit Holder: **Muskrat Falls Corporation  
350 Torbay Road, Suite 2  
St. John's, NL, A1A 4E1  
KristaTrowbridge@lowerchurchillproject.ca**

Attention: **Krista Trowbridge**

Re: **Lower Churchill Muskrat Falls - Re-establishment of sedimentation Pond -1**

Permission was given for : **the re-establishment of sedimentation pond-1 at the same location constructed under the permit ALT6700-2012, with reference to the application dated March 25, 2019.**

*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 Municipal Affairs and Environment 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 Municipal Affairs and Environment  
Water Resources Management Division  
PO Box 8700  
St. John's NL A1B 4J6

