



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: **JUNE 19, 2018**

File No: **536-12**  
Permit No: **ALT9705-2018**

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

Attention: **Peter Madden**

Re: **Lower Churchill Project (Churchill River) - Dewatering of the Settling Pond Associated with the Tire Wash Bay**

Permission is hereby given for the dewatering of Settling Pond, associated with the Tire Wash Bay, into the Churchill River at 53.243349°N, 60.768152°W after completion of RCC placement in the Lower Churchill Project, with reference to the application dated April 25, 2018

- 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*.
- Failure to comply with the terms and conditions will render this Permit null and void, place the Permit Holder and their agent(s) in violation of the *Water Resources Act* and make the Permit Holder responsible for taking any remedial measures as may be prescribed by this Department.

  
MINISTER

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
Department of Municipal Affairs and Environment

File No: 536-12  
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**APPENDIX A**  
**Terms and Conditions for Permit**

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**Special Conditions**

1. The proponent shall perform a Water Quality Monitoring Program for the settling pond before dewatering.
2. The Water Quality Monitoring Program for Tire Wash Bay Settling Pond is outlined in Appendix - E of this permit. Any changes to the location of the settlement pond or site discharge locations (into Churchill River) must be approved by the Water Resources Management Division and may result in changes to the Water Quality Monitoring requirements.
3. Dewatering from Tire Wash Bay Settling Pond is not permitted during and after any storm event.
4. No inflow into Tire Wash Bay settling pond is allowed during the time of dewatering.
5. Any emergency work outside the scope of this permit must be discussed with the Water Resources Management Division to determine permitting requirements.
6. The erosion control measures must be deployed at the discharge location into the Churchill River to avoid any erosion.

**Water Quality Reporting**

7. A report containing the environmental compliance monitoring and sampling information required in this permit shall be received by the Director, in hardcopy and digital formats (e-mail, diskette or CD), within 30 calendar days of the sample date. A hardcopy of all related laboratory reports shall be submitted to the Director. The digital copy, if e-mailed, shall be sent to the following address: [waterinvestigations@gov.nl.ca](mailto:waterinvestigations@gov.nl.ca)
8. All incidents of
  - non-conformance of any condition within this permit, or
  - whenever discharge criteria is, or is suspected to be, exceeded

shall be reported, within one working day, to a person or message manager or facsimile machine as follows:

**Department of Municipal Affairs and Environment, St. John's**

t. (709)729-2563

f. (709)729-0320

A written report including a detailed description of the incident, summary of contributing factors, and an action plan to prevent future incidents of a similar nature, shall be submitted to the Director. The action plan shall include a description of actions already taken and future actions to be implemented, and shall be submitted within thirty (30) days of the date of the initial incident. The address for written report submission is:

**Director, Water Resources Management Division**

**Department of Municipal Affairs and Environment**

**P.O. Box 8700**

**St. John's NL A1B 4J6**

t. (709)729-2653

f. (709)729-0320

**General Alterations**

9. 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.
10. 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.
11. 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.
12. 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.

13. 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.
14. 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.
15. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.
16. 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.
17. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
18. 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.
19. 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.
20. The attached Completion Report (Appendix C) for Permit No. 9705 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.
21. 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.
22. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
Department of Municipal Affairs and Environment

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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 and/or Ministerial orders and guidelines, as determined by this Department, the Minister may, after providing ten (10) day notice to the Permit Holder, 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: 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: Mark Bugden  
Senior Analyst  
Executive Council - Labrador and Aboriginal Affairs  
Aboriginal Affairs  
mbugden@gov.nl.ca
- cc: File Copy for Binder
- 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



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Department of Municipal Affairs and Environment  
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### Appendix C - Completion Report

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

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*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

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
Department of Municipal Affairs and Environment

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**APPENDIX D**  
**Location Map for Permit**

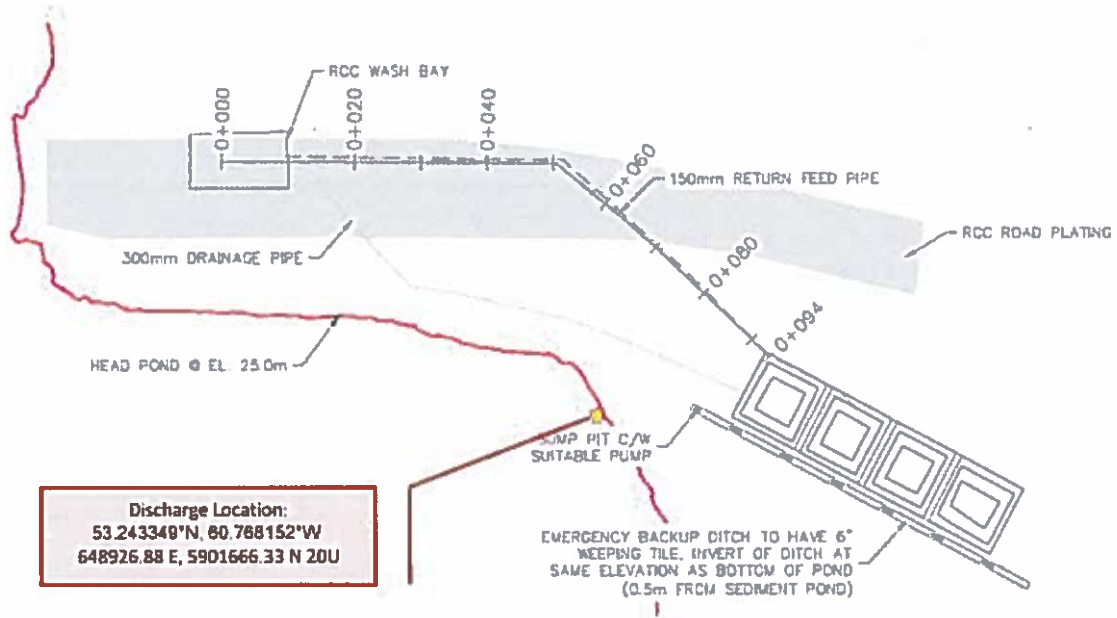
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GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
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Second Attached Image File





## APPENDIX - E

Discharge from the tire wash bay settling pond into the Churchill River will be permitted subject to the monitoring requirement as outlined below:

1. Prior to discharge, a sample of the liquid effluent contained in the settling pond must be collected and analysed for the water quality parameters outlined in Table 1 below. No additional input to the system can be introduced once the sample has been collected. The results of this analysis must be provided to WRMD for review and approval prior to discharge. The sample must meet the criteria for compliance in the *Environmental Control Water and Sewage Regulations, 2003* (Schedule A).
2. Analysis must be performed by a contracted commercial or in-house laboratory as per the *Accredited and Certified Laboratory Policy (PD:PP2001-01.2)*.
3. If all criteria under Schedule A are met, and only after approval by WRMD, water may be discharged into the river.
4. In the event that the sample does not meet the criteria outlined in Schedule A, the liquid effluent must be treated and re-analyzed to demonstrate compliance with Schedule A. WRMD must approve the discharge of the treated effluent prior to depositing into the environment. Alternatively, the proponent may opt to have a licensed waste disposal contractor handle the effluent on their behalf.

Please note this is permission for a *one time release* of effluent from the tire wash bay settling pond, upon approval by WRMD of water quality results. If further discharges are required, WRMD will re-evaluate upon request.

Table 1: Water Chemistry Analysis Program:

General Parameters:	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
Metals Scan:	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