

## PERMIT TO ALTER A BODY OF WATER

Pursuant to the *Water Resources Act*, S.N.L. 2002 cW-4.01, specifically Section(s) 48

Date: **SEPTEMBER 06, 2017**

File No: **527-04**  
Permit No: **ALT9338-2017**

Permit Holder:

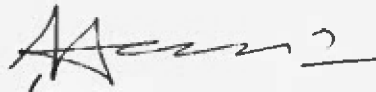


Attention: **Jody Wentzell, P. Eng.**

Re: **Labrador City (Luce Lake) - Construction of a 1670 metre long buried pipe diversion channel between Luce Lake North and Luce Lake South**

Permission is hereby given for: the construction of 1400 mm diameter - 1670 metre long buried pipe diversion channel to divert water from White Lake outflow around Luce Lake North into Luce Lake South, with reference to the application dated February 13, 2017 and additional information received on August 11, 15, 18, and 25, 2017.

- 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

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

**Stream Diversion Design**

1. An approximately 1670 metre long buried pipe diversion channel may be constructed to divert water from White Lake Outflow around Luce Lake North into Luce Lake South within the proponent's legal property boundaries.

2. The new buried pipe diversion channel must have the following dimensions:

**Bottom width** N/A m

**Depth of channel** N/A m

**Bank slope** N/A Horizontal to one vertical

**Flow area** 1.5 m<sup>2</sup> (Circular pipe with 1400 mm diameter)

**Bed slope** 0.67% to 8.0% (Pipe placing slope)

3. The buried pipe must provide adequate capacity to safely convey design flood flows.

4. To safely convey peak flows, the new channel must be designed according to the following hydraulic criteria:

**Design return period** 10 years

**Minimum flow capacity** 4.0 m<sup>3</sup>/s

**Maximum flow velocity** 3.1 m/s

**Stream Diversion Construction**

5. The old channel must be closed to all flow of water. The fill or structure diverting flows into the new channel must be adequately protected from erosion.

6. The diversion piping must be laid on a prepared bedding either on the existing ground surface or in a trench as required to maintain the required longitudinal slope for the pipe and must be covered with suitable material which will be sloped appropriately to create a stable covering for the piping.

7. The Permit Holder must prevent erosion of drainage ditches, streams or other natural bodies of water by installing rip-rap and/or sodding.

8. 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.

9. 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.

10. The trench for laying pipe must be excavated in the dry beginning from the downstream end.

11. Flow must not be diverted into the buried pipe until the entire buried pipeline is properly installed and covered with suitable materials. Water from the old channel must be diverted into the buried pipe gradually. The buried pipeline must be monitored visually for any damages.

12. The route of buried pipeline must be kept free of all excavated or unused construction materials at all times.

13. The buried pipeline must be inspected regularly and maintained to ensure that there is no damage to the pipeline. Any debris causing blockage at inlet and outlet must be removed when necessary.

14. 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.
15. All work must be carried out within the Permit Holder's legal property boundaries.

#### **General Alterations**

16. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
17. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
18. 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*.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.
27. 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.
28. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
29. 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.
30. 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.
31. The attached Completion Report (Appendix C) for Permit No. 9338 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.
32. 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.
33. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.

**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  
4th Floor, Confederation Building, West Block  
P.O. Box 8700, St. John's NL, Canada A1B4J6  
akhan@gov.nl.ca

cc: File Copy for Binder

cc: Jonathan Grandy (Labrador)  
Regional Lands Manager, Labrador Regional Lands Office  
Crown Lands Administration Division  
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P.O. Box 3014 Station B  
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jonathangrandy@gov.nl.ca

cc: Fisheries Protection Division  
Ecosystem Management Branch  
Fisheries and Oceans Canada  
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cc: Grand Chief Gregory Rich  
Innu Nation  
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Gregory.rich@innu.ca

cc: Mr. George Russell Jr.  
Natural Resources Manager  
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Happy Valley-Goose Bay, NL A0P 1C0  
grussell@nunatukavut.ca



### Appendix C - Completion Report

Pursuant to the *Water Resources Act*, S.N.L. 2002 cW-4.01, specifically Section(s) 48

Date: **SEPTEMBER 06, 2017**

File No: **527-04**  
Permit No: **ALT9338-2017**

Permit Holder: **Iron Ore Company of Canada  
P.O. Box 1000  
Labrador City, NL A2V 2L8**

Attention: **Jody Wentzell, P. Eng.**

Re: **Labrador City (Luce Lake) - Construction of a 1670 metre long buried pipe diversion channel  
between Luce Lake North and Luce Lake South**

Permission was given for : the construction of 1400 mm diameter - 1670 metre long buried pipe diversion channel to divert water from White Lake outflow around Luce Lake North into Luce Lake South, with reference to the application dated February 13, 2017 and additional information received on August 11, 15, 18, and 25, 2017.

*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

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

