

## PERMIT TO ALTER A BODY OF WATER

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

Date: JUNE 26, 2018

File No: 526  
Permit No: ALT9750-2018


Permit Holder: Town of Meadows  
PO Box 3529, RR#2  
Corner Brook NL A2H 6B9

Attention: Sandra Legge

Re: Meadows Water Supply- Meaters Pond Dam #2 Rehabilitation

Permission is hereby given for : **rehabilitation of the earthen dam and culvert spillway used by the Town of Meadows as part of their drinking water supply reservoir damaged during the January 2018 flooding to original construction conditions as per the as-built drawings completed by Atlantic Engineering Consultants Ltd in February 2002.**

- 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**

**Dam/Reservoir Design**

1. Reservoirs must be provided with a spillway of adequate capacity to safely discharge design flows at non-erosive velocities without causing flooding of the reservoir or damage to the spillway or downstream channel.
2. The dam and appurtenant structures shall be constructed at the following coordinates:

Name	Datum	Northing (m)	Easting (m)	Zone
Meaters Pond Dam #2	NAD83	5429064.5	424617.2	21

3. The dam(s) must have the following dimensions:

Name	Elev/Height of Dam (m)	Maximum Water Elevation (m)	Normal Water Elevation (m)
Meaters Pond Dam #2	155.2/2.4	153.2	154

4. To safely convey peak flows the dam(s) must be designed according to the following hydraulic criteria:

Name	Design Return Period (years)	Inflow Design Flood (m <sup>3</sup> /s)
Meaters Pond Dam #2	100	5.3

**General Alterations**

5. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
6. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
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. 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.
11. 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.
12. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.

13. Care must be taken to prevent spillage of pollutants into the water.
14. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
15. 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.
16. 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.
17. The attached Completion Report (Appendix C) for Permit No. 9750 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.
18. 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. The following terms are valid for the life cycle of the dam structure: 28 and 38.
19. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.

#### **Water Supply Area**

20. No fuels, chemicals, or other deleterious material shall be stored at the site.
21. The Permit Holder must take necessary measures to control dust that may impair the quality of any adjacent waterbody.
22. Equipment must not be serviced within the boundaries of protected watersheds.
23. The Permit Holder is hereby informed that if there is any change in water quality in a protected watershed resulting directly from the project which causes sufficient changes in physical, chemical or bacteriological composition to render the water within the protected watershed unsuitable as a public water supply, then the Permit Holder must ensure that an alternate source of potable water is provided to the citizens until water quality returns to an acceptable level.
24. 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.
25. Liaison is to be maintained with the Regional Watershed Management Specialist for all activities within the PPWSA. If there are any problems, he/she may be reached at (709) 637-2542.
26. All vegetation removal within 100 metres of a body of water or within the Protected Water Supply Area for the Town of Meadows must be carried out by hand operated equipment only.
27. 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 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

#### **Dam Safety**

28. The dam has been conditionally identified as a very small dam. However, the consequences of failure of the dam should be reviewed periodically, since they may change with downstream development. If the consequences of dam operation or failure are likely to be unacceptable to the public the dam may be classified based on the 2007 Canadian Dam Association (CDA) guidelines and have to meet CDA best practice.

#### **Dam Construction**

29. The reconstruction of the dam shall include reestablishment of the two (2) 900 mm spillway culverts to be able to accommodate the inflow design flood.

30. Fill material must be obtained from an approved quarry site. It must not be taken from beaches or streams, and must not be dredged from a body of water.
31. Reservoir shorelines with moderately steep slopes or vulnerability to wave induced erosion, must be adequately protected with armour stone, rip-rap, or by other suitable measures.
32. Vegetation on the upstream face, crest, and downstream face of the dam shall be removed.
33. The dam is to be reestablished to pre-flood conditions according to the February 2002 as-built drawings with the following upgrades: 1) the upstream replacement liner used on the upstream face of the dam around the culverts shall be protected with an under layer of bedding material and fused to the existing liner, 2) the reestablished liner shall be protected with an over layer of bedding material and rip-rap to protect the embankment and culverts from erosion, and 3) rip rap around the culvert should be a minimum of 300 mm in diameter.
34. The area downstream of the dam where the culverts are discharging shall be lined with rip-rap with a minimum diameter of 400 mm in diameter to prevent erosion.
35. 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.
36. 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.
37. The transportation of labour and materials to the site must be along existing access roads.
38. The dam and spillway must be inspected regularly to identify any indications of structural failure, leaking, erosion or other problem so that immediate action can be taken to rectify the problem.

**APPENDIX B**  
**Special Terms and Conditions for Permit**

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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: File Copy for Binder
- cc: Mr. Chris Blanchard, B.Tech.(Env), AScT  
Environmental Scientist  
Water Resources Management Division  
Department of Municipal Affairs and Environment  
P.O. Box 2006  
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cblancha@gov.nl.ca
- cc: Ms. Carla Hayes, P.Tech  
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Department of Municipal Affairs and Environment  
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- cc: Ms. Paula Dawe, P.Eng.  
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Water Resources Management Division  
Department of Municipal Affairs and Environment  
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pauladawe@gov.nl.ca
- cc: Mr. Chris Power, P. Eng.  
Regional Engineer, Western Regional Office  
Department of Municipal Affairs and Environment  
6th Floor, Sir Richard Squires Building  
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ChrisPower@gov.nl.ca
- cc: Ms. Susan Hoddinott  
Regional Director  
Service NL  
PO Box 2006  
Corner Brook NL A2H 6J8  
SusanHoddinott@gov.nl.ca

### Appendix C - Completion Report

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

Date: JUNE 26, 2018

File No: 526  
Permit No: ALT9750-2018

Permit Holder: Town of Meadows  
PO Box 3529, RR#2  
Corner Brook NL A2H 6B9

Attention: Sandra Legge

Re: Meadows Water Supply- Meaters Pond Dam #2 Rehabilitation

Permission was given for : rehabilitation of the earthen dam and culvert spillway used by the Town of Meadows as part of their drinking water supply reservoir damaged during the January 2018 flooding to original construction conditions as per the as-built drawings completed by Atlantic Engineering Consultants Ltd in February 2002.

*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**

