

PERMIT TO CONSTRUCT

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37, 61

Date: **AUGUST 31, 2016**

File No: **842.224.1**
Permit No: **WS8837-2016**


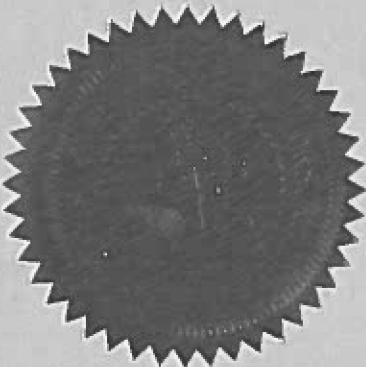
Permit Holder: **LSD of Bay St. George South
PO Box 27
Jeffrey's NL A0N 1P0**

Attention: **Ms. Amanda Hulan**

Re: **Bay St. George South - New Watermain Installation**

Permission is hereby given for : the installation of 75 m of 50 mm series 100 polyethylene water main, curb stops and related works and appurtenances as described in a specification entitled "Local Service District of Bay St. George South, New Watermain Installation and Building Demolition" and drawings numbered I61322, sheets C-1.0 and SP-1.0 as received from Anderson Engineering Consultants Ltd. on August 22, 2016.

- 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*.
- 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

Water & Sewer General

1. 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*.
2. 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.
3. 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.
4. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.
5. The works proposed must satisfy the requirements of the latest applicable codes and standards, and be consistent with or otherwise address the design criteria set out in the Department of Environment and Climate Change publication *Guidelines for The Design, Construction, and Operation of Water and Sewerage Systems, 2005*, and as amended from time to time.
6. The work must be undertaken in strict compliance with the submitted documents and the latest version of the *Municipal Water, Sewer and Roads Master Construction Specifications*. A copy of all documents, including the *Municipal Water, Sewer and Roads Master Construction Specifications* must be available for viewing at the construction site office at all times.
7. Liaison is to be maintained with the Design Approval Specialist representing the Drinking Water and Wastewater Section of this Department, during the construction and operation of the project. The Specialist shall be notified of the pre-construction and post-construction meetings so that he may attend, if deemed necessary. He can be reached at telephone (709) 637-2034 .
8. Officials of this Department may visit the project from time to time to ensure that work is carried out within the provisions of this Permit, and is not creating any environmental hazard.
9. Any changes in the approved works, or works other than those specified in the application, must be submitted, in writing, to this Department, and approved, in the form of an Amendment to this Permit, prior to any work.
10. Copies of this Permit, as well as any subsequent Amendments, must be provided to the contractor(s) who will be carrying out these works, and to the engineer's site representative.
11. The attached Completion Report (Appendix C) for Permit No. 8837 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.
12. 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.
13. The drinking water system shall be operated and maintained in accordance with the Permit to Operate issued by this Department.
14. The Owner must update any drawings maintained of the drinking water system to reflect the modification or replacement of the works, where applicable.

Water Systems

15. Wherever possible, water distribution system layouts should be designed to eliminate dead-end sections. Where dead-end mains cannot be avoided, they should be provided with a fire hydrant, blow off, or other acceptable measures taken to prevent problems associated with stagnation.

16. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.
17. Water mains must not pass within 15 metres of any part of a sewage disposal system. Water service lines must not pass within 7.5 metres of a sewage disposal system. In general the following conditions should be met in regards to water service lines:
 - (a) There should be no joint in the service line between the building and the connection to the watermain.
 - (b) The groundwater level should not be above the service line.
 - (c) The service line should be located upslope of the sewage disposal system.
 If the above conditions are not met, consideration should be given to increasing the distance between the service line and the sewage disposal system, providing extra protection against contamination.
18. All components, lubricants and chemicals provided shall be compatible for use with drinking water and shall meet the requirements of ANSI/NSF 60 Drinking Water Treatment Chemical Standard and ANSI/NSF 61 Drinking Water and System Component Standard and any other standard applicable to potable water.
19. All new lines and appurtenances must be disinfected by an approved method described in the latest edition of the AWWA C651 Standard for Disinfecting Watermains and using only chlorine products that meet the NSF 60 standard.
20. After final flushing and before the new water main is commissioned into service, bacteriological sampling must be conducted as per the latest edition of the AWWA C651 Standard for Disinfecting Watermains. Two acceptable options are available: (1) two consecutive sets of bacteriological samples, taken at least 16 hours apart, must be collected and tested for bacteriological quality, or (2) following a 16 hour rest period two consecutive sets of samples, taken 15 minutes apart, must be collected and tested for bacteriological quality. Sets of samples shall be collected for every 366 m of new water main including the end of the main line and the end of each branch line. These sampling locations shall be determined by the engineer. A copy of test results must be submitted to the Regional Department of Environment and Climate Change Office (Water Resources Management Division) before the new watermain is placed into service. In the event of any bacteria detected in the sample results, flushing and re-sampling may be attempted or the disinfection process will need to be repeated until results for two consecutive sets of samples are bacteria free. Where necessary, the Department of Environment and Climate Change should be contacted to determine provisions for the disposal of heavily chlorinated water. **Bacteriological results along with completion reports for projects (Appendix C of the Permit to Construct) must be forwarded to the Regional Department of Environment and Climate Change Office.**
21. For the purpose of disinfecting new or upgraded watermains, connection may only be made to the existing watermain provided a valve is installed that maintains a water tight seal. This valve may be operated to flush the new water extension before disinfection and post disinfection provided adequate measures and procedures are followed to avoid a backflow and contamination of the existing system.
22. The existing watermain that is being taken out of service must be permanently disconnected so as not to create a cross-connection with the town's water distribution system.

Development in WPWSA

23. The installation of 75 m of 50 mm series 100 polyethylene water main, curb stops and related works in the Local Service District of Bay St. George South, within the #2B Lions Club Well, Wellhead Protected Water Supply Area, is approved subject to the following conditions:
24. All persons working on this project must be informed that they are within a Wellhead Protected Water Supply Area and must be made aware of all conditions of this Permit. A copy of this Permit must be on site during construction.
25. All equipment must be in good working order with no leaking fuel or oil. Refueling of heavy equipment is not allowed on site.
26. Any spills of gasoline, fuel or oil, regardless of volume, must be reported immediately to the Environmental Scientist at (709) 729-1671. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at (709) 772-2083 (call collect) or 1-800-563-9089.
27. All operations must be carried out in a manner that minimizes damage to land, vegetation and water courses, and which prevents pollution of water bodies. Please note that groundwater aquifers are considered water bodies.
28. The use of treated wood, including the use of treated utility poles, is limited to wood protected by copper azole preservative.
29. During construction and after the project is complete, the use and/or storage of fertilizers, pesticides, herbicides, petroleum solvents, chlorinated solvents, and preservatives is limited or restricted. Please contact the Environmental Scientist at (709)

729-1671 for more information.

30. The parking, storage, and maintenance of heavy equipment is prohibited.
31. Equipment storage and maintenance facilities associated with this project must not be located within the Wellhead Protected Water Supply Area, and all maintenance other than emergency repairs must be performed outside the Wellhead Protected Water Supply Area.
32. Bulk fuel storage, including home heating fuel, is prohibited.
33. Fuel/gasoline storage is limited to one 23 litre (5 Imperial gallon) approved container during both the construction and occupation period of the property. Furthermore, every precaution shall be made to prevent spills, leaks, or other discharges while filling from the container.
34. Liaison must be maintained with the appropriate Municipal Authority and Department of Environment and Climate Change official. If there are any specific problems (i.e., fuel spill or other potential water quality impairment), the Town Manager/Clerk and/or Mayor must be notified immediately, as well as the Environmental Scientist at (709)729-1671.
35. Officials of the Department of Environment and Climate Change and the appropriate Municipal Authority, Operator, or Wellhead Protection Committee may visit the site from time to time to ensure compliance with this Permit.
36. Any areas adversely affected by this project must be restored to a state that resembles the local natural conditions or must be grass covered. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if necessary in the opinion of the Department of Environment and Climate Change.
37. The Department of Environment and Climate Change reserves the right to require the proponent to cover all costs incurred by the proponent or this department that is 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.
38. Any changes in the #2B Lions Club Well - Wellhead Protected Water Supply water quality resulting directly from this project, rendering the water unsuitable as a public water supply, are the responsibility of the proponent. The Minister may order the proponent to provide an alternate source of potable water to the affected community until water quality returns to an acceptable level.
39. A water quality monitoring program is not required at this time. However, the Department of Environment and Climate Change reserves the right to require that the proponent sample, analyze, and submit results of water quality tests, for the purpose of ensuring that the water quality of the surrounding aquifer(s), is maintained within acceptable guidelines. All analyses must be undertaken by a C.A.E.A.L. accredited laboratory.
40. Any significant changes in the permitted operations, developments or activities other than those specified in the application must be submitted in writing to the Department of Environment and Climate Change, and permitted in the form of an Amendment to this Permit, before they are undertaken.
41. Renewal of this permit shall require the submission of a written application, on the prescribed form, to the Department of Environment and Climate Change, and is subject to review by this Department and the appropriate Municipal Authority, Operator or Wellhead Protection Committee.
42. The permitted development activity is located at or near: #2B Lions Club Well, Bay St. George South.

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: Mr. Chris Blanchard, B.Tech.(Env), AScT
Environmental Scientist
Water Resources Management Division
Department of Environment and Climate Change
P.O. Box 2006
Corner Brook, NL A2H 6J8
cblancha@gov.nl.ca
- cc: Ms. Deneen Spracklin, P.Eng.
Environmental Engineer, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Environment and Climate Change
P.O. Box 8700
4th Floor, West Block, Confederation Building
St. John's, NL A1B 4J6
dspracklin@gov.nl.ca
- cc: Ms. Dorothea W. Hanchar, M.Sc.
Manager of Groundwater Resources
Groundwater Section, Water Resources Management Division
Department of Environment and Climate Change
P.O. Box 8700
4th Floor, West Block, Confederation Building
St. John's, NL A1B 4J6
DorotheaHanchar@gov.nl.ca
- cc: Mr. Chris Power, P. Eng.
Regional Engineer, Western Regional Office
Department of Municipal Affairs
6th Floor, Sir Richard Squires Building
P.O. Box 2006
Corner Brook, NL A2H 6J8
ChrisPower@gov.nl.ca
- cc: Mr. Carl Hann (Western)
GSC - Corner Brook, Service NL
Sir Richard Squires Building
Mount Bernard Avenue, P.O. Box 2006
Corner Brook, NL A2H 6J8
chann@gov.nl.ca
- cc: Mr. Steve Osmond, P. Eng.
Anderson Engineering Consultants Ltd.
Suite 103, 3 Union Street
Corner Brook, NL A2H 5M7
andersoneng.sosmond@nfld.net

Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37. 61

Date: AUGUST 31, 2016

File No: 842.224.1
Permit No: WS8837-2016

Permit Holder: LSD of Bay St. George South
PO Box 27
Jeffrey's NL A0N 1P0

Attention: Ms. Amanda Hulan

Re: Bay St. George South - New Watermain Installation

Permission was given for : the installation of 75 m of 50 mm series 100 polyethylene water main, curb stops and related works and appurtenances as described in a specification entitled "Local Service District of Bay St. George South, New Watermain Installation and Building Demolition" and drawings numbered 161322, sheets C-1.0 and SP-1.0 as received from Anderson Engineering Consultants Ltd. on August 22, 2016.

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