

PERMIT TO CONSTRUCT

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37, 39

Date: **JANUARY 14, 2025**

File No: **842.102.1**
Permit No: **WS14089-2025**

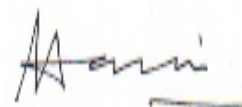
Permit Holder: **Town of Lourdes**
PO Box 29
Lourdes NL A0N 1R0
townoflourdes@eastlink.ca

Attention: **Mr. Henry Gaudon**

Re: **Lourdes - Water Treatment Facility Improvements**

Permission is hereby given for : **construction of a new water treatment building including installation of a new emergency eyewash/shower and relocation of the existing water treatment equipment and related works as shown on a set of revised drawings MI Project No. 17-GI-24-00007, sheets C01 to C12 inclusive, ES1, ES2, E01 to E03 inclusive as received from ADC Engineering on December 20, 2024.**

- 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*.



(for) 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. 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 this Department's publication *Guidelines for the Design, Construction, and Operation of Water and Sewerage Systems, 2005*, and as amended from time to time.
5. 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.
6. Liaison is to be maintained with the Environmental Scientist representing the Drinking Water and Wastewater Section of this Department, during the construction and operation of the project. They shall be notified of the pre-construction and post-construction meetings so that they may attend, if deemed necessary. They can be reached at telephone (709) 637-2034 .
7. 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.
8. 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.
9. 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.
10. The attached Completion Report (Appendix C) for Permit No. 14089 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.
11. 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.
12. The drinking water and wastewater system shall be operated and maintained in accordance with the Permit to Operate issued by this Department.

13. Management of stormwater is the responsibility of the municipality or LSD. Stormwater management should focus on ensuring that the post-development stormwater runoff rate will be equal to or less than the pre-development runoff rate. Any stormwater runoff has the potential to contribute to flooding downstream which may have liability issues for the municipality or LSD if not managed properly.
14. The Owner must update any drawings maintained of the drinking water or wastewater system to reflect the modification or replacement of the works, where applicable.

Water Systems

15. Under no circumstances shall sewage be permitted to enter the waterline trench during or after construction.
16. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.
17. 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.

Chlorination

18. The upgrading of the existing chlorination facility must be carried out in such a way as there will be minimal interruption of the water supply and chlorination system. In this regard, water consumers and the Regional Office of the Department of Digital Government and Service NL shall be kept informed and appropriate action taken to address any potential or encountered problems.
19. The door of the chlorination room must open outward, and must be equipped with approved panic hardware. This door shall have mounted on its exterior, a sign **warning** of the presence of chlorine gas.
20. The chlorination room/building/storage area must be equipped with a chlorine leak detection device. The device shall control an audible alarm, and an alarm light located above the entrance door to the chlorine room.
21. The exhaust fan in the chlorine room must be capable of providing one complete air exchange per minute, and the air intake duct shall extend to within 150 mm of the floor. A manual control switch for the fan shall be provided at the entrance and in an adjoining room.
22. The chlorination room and the adjoining room(s) shall be separated by an air tight wall in order to protect personnel and equipment in the adjoining room in the event of a chlorine gas leak. A clear air tight viewing window shall be installed in this wall to allow for visual inspection of the chlorine room and chlorine storage room.
23. A Chlorine Institute 'Kit A' should be provided in order that emergency leak repairs may be made to the chlorine cylinders when necessary. The Kit should be stored near the emergency breathing apparatus, and not in the same room as the chlorine cylinders.
24. The vacuum regulator vents must be vented to a safe location where personnel will not be endangered from the escaping gas. They shall not under any circumstance be vented in the vicinity of an exit door or through an unheated space (ie. attic).
25. The chlorination facility shall be located in a fenced enclosure to minimize vandalism and endangerment to the general public in case of a chlorine leak.
26. The injector for the chlorination system shall be located as close as possible to the diffuser (preferably attached) in order to minimize the pressurized chlorine solution line. The chlorine injection lance shall be installed in the pipe so that the chlorine solution is being injected within the flow of water to ensure appropriate mixing.

27. The emergency shower and eye wash station must be in compliance with ANSI Z358.1-2014 and meet the requirements of the appropriate Safety Data Sheet (SDS) and it shall be located within 4.5 m of both the chlorine equipment room or chlorine storage room exit doors.
28. The chlorination room and chlorine ton container storage room shall not be serviced with floor drains.
29. Self-contained breathing apparatus or respiratory air-pac protection equipment shall be provided. The equipment shall be stored in convenient locations, but not inside any room where chlorine is used or stored. The unit shall use compressed air, have at least 30 minute capacity, and be compatible with the units used by the regional fire department.
30. Portable equipment must be provided for measuring chlorine residuals. The equipment shall have digital display readout, enable measurement of chlorine residuals to the nearest 0.02 mg/L, and shall be of a type approved by this Department.
31. The chlorinator and chlorine vacuum lines shall not be located on an outside wall to prevent exposure to low temperatures.

PPWSA General

32. 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.
33. An undisturbed (no cutting or ground disturbance) buffer zone of at least **150 metres** shall be maintained around Victor's Brook for a distance of 1 kilometer upstream and 100 metres downstream of the intake, at least **75 metres** along the remainder of Victor's Brook, at least **50 metres** around major lakes or ponds and along both sides of all streams and main tributaries running into Victor's Brook, and at least **30 metres** around all ponds and along both sides of all other water bodies including wetlands and field identified streams. Activity or development within these buffer zones is prohibited. All buffer zones must be marked with signs or flagging tape to avoid encroachment into the buffer zones.
34. Treated wood shall not be used in a water body or within buffer zones established in Condition #41 of any water body measured from the high water mark. The use of creosote treated wood anywhere within the Protected Public Water Supply Area is strictly prohibited.
35. All waste material is to be collected in refuse containers, and disposed of at an approved waste disposal site outside the Protected Public Water Supply Area in accordance with the *Environmental Protection Act, SNL 2002 cE-14.2*.
36. Equipment storage, maintenance facilities associated with this project, and all maintenance other than emergency repairs must not be located/carried out within the Protected Public Water Supply Area.
37. The Department reserves the right to require that the Permit Holder follow, and cover all costs incurred by the Permit Holder or this department, 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. Officials of the Department and the appropriate Municipal Authority, Operator, or Watershed Management Committee may visit the site to ensure compliance with this Permit.
39. Liaison is to be maintained with the appropriate Municipal Authority and Environmental Scientist. If there are any specific problems (i.e. sedimentation, fuel spill, or other potential water quality impairment), the appropriate Town Manager/Clerk, Mayor, Chair of the Local Service District Committee, or Chair of the Water Supply Committee must be notified immediately at (709)642-5812. The Environmental Scientist must also be notified immediately at **(709)637-2542**.

40. The felling or disposing of trees, parts of trees, sawdust, bark, logging debris or slash into a water body or upon the frozen surface of a water body is strictly prohibited.
41. Motorized vehicles, including snowmobiles and ATVs, shall not be used to cross the frozen surface of Victor's Brook the intake body of water within the Protected Public Water Supply Area.
42. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
43. Any changes in water quality resulting directly from this project, rendering the water unsuitable as a public water supply, are the responsibility of the Permit Holder. The Minister may order the Permit Holder to provide an alternate source of potable water to the affected community until water quality returns to an accepted level.
44. All vehicles and equipment must be clean and in good working order with no leaking fuel, oil, or other harmful substances that could impair water quality.
45. All stationary motorized equipment and associated fuel tanks shall have metal trays, absorbent pads or impervious liners under them to catch and contain in excess of 110 % of the aggregate volume of any fuel, lubricant and oil.
46. Drainage from roads and other disturbed areas into any body of water must first be discharged into a settling pond, a vegetated area or pass through a sedimentation fence where all suspended material can settle out before draining into any body of water.
47. Where permits, licences, approvals or authorizations are issued by multiple governments departments or agencies, in the case of similar conditions, the more stringent of those shall prevail; in the case of conflicting conditions, the Permit Holder shall seek clarification and direction in writing from each of the respective departments or agencies.
48. The Permit Holder is required to ensure that adequate sanitary (bathroom) facilities are available or provided on site. This may be in the form of a portable toilet, chemical toilet, or municipal sewer system. If a portable toilet or chemical toilet is used, the waste water must be disposed of in a septic disposal system approved by Service NL, or at an approved waste disposal site, outside the Protected Public Water Supply Area in accordance with the Environmental Protection Act, SNL 2002 cE-14.2.

Fuel Storage

49. There shall be no bulk fuel storage associated with this project within the protected water supply area. Fuel shall be brought to the operating area in no more than one (1) 500 litre slip tank. The Permit Holder is hereby informed that fuel storage and handling requires a separate approval under the *Storage and Handling of Gasoline and Associated Products Regulations*, CNR 775/96.
50. Contaminated snow and soil must be removed from the site and disposed of at an approved location outside the protected public water supply area, in accordance with the *Environmental Protection Act*, SNL 2002 cE-14.2.
51. Any spills of gasoline, fuel or oil, regardless of volume, shall be reported immediately to the Environmental Scientist at (709)637-2542 and the appropriate Municipal Authority or Watershed Management Committee by calling (709)642-5812. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at 1-800-563-9089.

52. 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 as 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
53. Refueling sites shall be located at least 150 metres from any water body or wetland.

Protected Miscellaneous

54. The Permit Holder must inspect the site daily, and any water quality impairment related problems are to be reported immediately to the Environmental Scientist at (709)637-2542 and the appropriate Municipal Authority or Watershed Monitoring Committee at (709)642-5812.
55. The Permit Holder is required to provide this Department with all documentation, information and data which may be requested or required in order to carry out the inspection or investigation.
56. Sawdust, bark, and logs must not be stored within undisturbed buffer zones of any body of water, and must be removed at regular intervals to prevent excessive accumulation at the site.
57. Existing creosote poles may be replaced with Chromated Copper Arsenate (CCA) poles outside undisturbed buffer zones.
58. Wood and brush removed from the work site must not be stored within undisturbed buffer zones of any water body.

Power Lines

59. The use of creosote or pentachlorophenol (PCP) treated utility poles and/or anchor boxes is strictly prohibited.
60. Chromated copper arsenate (CCA), ammoniacal copper arsenate (ACA) or copper naphthanate (CuNap) treated utility poles and/or anchor boxes may be used outside the above-referenced buffer zones. Untreated poles must be used within the above-referenced buffer zones.
61. All poles and/or anchor boxes within 150 metres of Victor's Brook or within 30 metres of any water body must be of untreated wood, metal or concrete.
62. The **Policy for Treated Utility Poles in Water Supply Areas (WR 93-01)** must be strictly adhered to.

Special Conditions

63. Cleaning of any equipment, including but not limited to, equipment that comes into contact with concrete or paint, is not permitted within the Victor's Brook Protected Public Water Supply Area.
64. All fill material for the sump will be from a stockpile that has not been in contact with any other materials that may adversely impact it or have additional materials added to it.
65. New and existing floor drains are for the overflow of raw water and potable water that contains disinfection chemicals only.

Water Treatment

66. All drains and vents shall be equipped with screens to prevent the entry of insects, birds and rodents.

67. 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.
68. A sample tap shall be provided so that water samples can be obtained from the raw water source and from an appropriate location after chlorination. Taps used shall be of the smooth-nosed type without interior or exterior threads and shall not have a screen, aerator or other such appurtenance.
69. The owner shall ensure that all chemicals used in the treatment process and all materials contacting the water are of Food Grade quality and meet both the American Water Works Association (AWWA) quality criteria as set out in AWWA standards and the American National Standards Institute (ANSI) and the National Sanitation Foundation (NSF) safety criteria as set out in ANSI/NSF 60 or ANSI/NSF 61 standards and any other applicable standards.
70. The water treatment plant including all interior and exterior water piping systems, all storage tanks including the finished water clear wells, filter media and other receptacles and appurtenances must be disinfected by approved methods such as described in the American Water Works Association Standards, Disinfection of Watermains, C651-99, Disinfection of Water Storage Facilities, C652-92 and Disinfection of Water Treatment Plants C653-87. It should be noted that the filter chambers must be disinfected prior to the placement of filter media and subsequently, the media disinfected as per the above quoted Standards. After final flushing, samples shall be collected and tested for bacteriological quality. The sampling locations shall be determined by the engineer. A copy of the test results shall be submitted to this Department (Water Resources Management Division) before the treatment plant is placed in service.
71. Residuals discharged from the water treatment plant must meet the requirements of the *Environmental Control Water and Sewage Regulations, 2003*.
72. Appropriate backflow prevention devices meeting or exceeding the CSA 64 Standard shall be installed on all potable water lines where a cross connection may exist or be created, to prevent the possibility of contaminants entering the potable water distribution system due to back-siphonage or back-pressure.

Commissioning and Monitoring

73. This Department must be informed of the date of commission of the drinking water treatment system.

Miscellaneous

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

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.

- cc: Mr. Steve Osmond, P. Eng
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Water Resources Management Division
Department of Environment and Climate Change
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Department of Transportation and Infrastructure
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- cc: Ms. Carla Hayes, P.Tech
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Department of Environment and Climate Change
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Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37, 39

Date: **JANUARY 14, 2025**

File No: **842.102.1**

Permit No: **WS14089-2025**

Permit Holder: **Town of Lourdes
PO Box 29
Lourdes NL A0N 1R0
townoflourdes@eastlink.ca**

Attention: **Mr. Henry Gaudon**

Re: **Lourdes - Water Treatment Facility Improvements**

Permission was given for : **construction of a new water treatment building and relocation of the existing water treatment equipment and related works as shown on a set of revised drawings MI Project No. 17-GI-24-00007, sheets C01 to C12 inclusive, ES1, ES2, E01 to E03 inclusive as received from ADC Engineering on December 20, 2024.**

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

APPENDIX D
Location Map for Permit

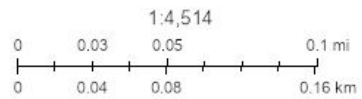
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Intakes / Wellheads

 Intakes



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ArcGIS Web AppBuilder
Maxar | <http://open.canada.ca/en/open-government-licence-canada> | Esri Community Maps Contributors, Esri Canada, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, NRCan, Parks Canada