

## PERMIT TO CONSTRUCT

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

Date: **AUGUST 15, 2022**

File No: **842.037.2**  
Permit No: **WS12599-2022**

Permit Holder: **Town of Pasadena  
18 Tenth Avenue  
Pasadena NL A0L 1K0  
bhudson@pasadena.ca**

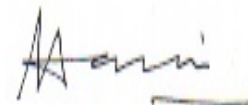
Attention: **Mr. Brian Hudson**

Re: **Pasadena - Water Treatment Plant Upgrades**

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Permission is hereby given for : **upgrades to the existing water treatment system to include the construction and installation of a 4,200 m<sup>3</sup>/d treatment system consisting of cartridge filters, a membrane filtration system, clean in place system consisting of a tank and pumping system and related works and appurtenances as described in a Design Description as well as a set of fifty-one drawings titled "Town of Pasadena Water Treatment Improvements" (MI no. 17-GI-20-00048) as received from Cahill Technical Services on August 3, 2022.**

- 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**

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**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. 12599 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 system shall be operated and maintained in accordance with the Permit to Operate issued by this Department.

13. 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**

14. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.
15. 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.

### **Water Treatment**

16. All drains and vents shall be equipped with screens to prevent the entry of insects, birds and rodents.
17. The ends of drains and overflows shall be located so as to prevent erosion. Where necessary, concrete or similar splash plates shall be located below the end of the overflow, and the immediate surrounding area shall be filled to a depth of 10 cm with 19 mm minus stone to prevent ponding.
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. 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.
20. 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.
21. The water treatment plant including all interior and exterior water piping systems, 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.
22. Residuals discharged from the water treatment plant must meet the requirements of the *Environmental Control Water and Sewage Regulations, 2003*.
23. 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.
24. The water treatment plant shall be provided with an automated SCADA system for control of all treatment processes including RTUs/PLCs, MTUs, HMIs, data historian, trend applications and communication systems as required.
25. The water treatment plant is provided with a back-up or emergency power supply.

### **Commissioning and Monitoring**

26. The drinking water treatment system shall meet the required performance standards/criteria/objectives as established in the Request for Proposals.
27. This Department must be informed of the date of commission of the drinking water or wastewater treatment system.
28. The water treatment plant must meet the requirements of the *Drinking Water Treatment Standards for Newfoundland and Labrador*.

#### **Miscellaneous**

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

#### **PPWSA General**

30. 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.
31. An undisturbed (no cutting or ground disturbance) buffer zone of at least **150 metres** shall be maintained around Blue Gulch Pond, at least **50 metres** along both sides of all streams and main tributaries running into Blue Gulch Pond, and at least **30 metres** around all ponds and along both sides of all other water bodies. 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.
32. 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*.
33. 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.
34. 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.
35. Officials of the Department and the appropriate Municipal Authority, Operator, or Watershed Management Committee may visit the site to ensure compliance with this Permit.
36. Liaison is to be maintained with the appropriate Municipal Authority and Environmental Scientist. If there are any specific problems (ie sedimentation, fuel spill, 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)686-2075. The Environmental Scientist must also be notified immediately at **(709)637-2542**.
37. Treated wood shall not be used in a water body or within buffer zones established in Condition #35 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.
38. 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)686-2075.
39. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.

40. 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.
41. Temporary and permanent hazardous material storage areas are not permitted inside the Protected Public Water Supply Area.
42. Cleaning of any equipment, including but not limited to, equipment that comes into contact with concrete or paint, is not permitted within the Blue Gulch Pond Protected Public Water Supply Area.
43. 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.
44. 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.
45. 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.
46. The issuance of this permit does not guarantee, nor set precedent, that additional or similar permits or amendments will be issued in this or any other Protected Public Water Supply Area for additional or similar activity or development.

#### **Fuel Storage**

47. There shall be no bulk fuel storage associated with this project within the protected water supply area, except for the fuel stored in the tank associated with the generator. Fuel shall be brought to the operating area by an approved fuel transporter. All best management practices while operating and fueling a storage tank must be followed.
48. A multi-barrier approach (a combination of 3 or more) is required to prevent leaks and spills at the tank such as: secondary containment capable of holding in excess of 110% of the tank storage capacity, interstitial monitoring (eg. a rupture switch), lockable spill containment at the fill pipe, fuel level gauges, daily inspections of the tank and barricades to prevent equipment from damaging the tank.
49. A complete oil spill clean-up kit must be on site at all times. The kit must contain the following:
  - Fire pump and 100 metres of hose
  - Two hand operated fuel pumps
  - Six recovery containers such as empty 205 litre drums
  - Four shovels
  - Two pick axes
  - Ten metres of containment boom
  - Twenty-five absorbent pads
  - One hundred litres of loose absorbent material
50. 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, 2003 through the Department of Digital Government and Service NL.
51. All conditions of the Gasoline and Associated Products tank registration must be strictly adhered to. Any deviation from these conditions requires the written approval of both Digital Government and Service NL and this Department. If requirements of the two permits differ, the most stringent shall be followed.

52. 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*.
53. Once the new tank is installed and put into operation, every effort shall be made to prevent spills, leaks, or other discharges from the system. The Permit Holder shall put in place procedures to prevent overfilling, security of the hose and nozzle, and refueling.
54. A contingency plan to deal with spills, leaks or other discharges will be kept on site and provided to this Department.
55. Any spills of gasoline, fuel or oil, regardless of volume, shall be reported immediately to the Environmental Scientist and the appropriate Municipal Authority or Watershed Management Committee by calling (709)637-2542 and (709)686-2075 respectively. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at 1-800-563-9089.
56. Refueling sites shall be located at least 150 metres from any water body or wetland.

**Protected Miscellaneous**

57. 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.

**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, 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. Thomas Hayward  
Cahill Technical Services  
2-4 Southern Cross Road  
Mount Pearl NL A1N 5A2  
thayward@cahill.ca
- cc: Mr. Jeff Pickett (Western and Labrador)  
Director  
Digital Government and Service NL  
Sir Richard Squires Building  
PO Box 2006  
Corner Brook NL A2H 6J8  
jeffpickett@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  
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4th Floor, West Block, Confederation Building  
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- cc: Mr. Chris Power, P. Eng.  
Regional Engineer, Western Regional Office  
Department of Transportation and Infrastructure  
6th Floor, Sir Richard Squires Building  
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ChrisPower@gov.nl.ca
- cc: Mr. Chris Blanchard, B.Tech.(Env), AScT  
Environmental Scientist  
Water Resources Management Division  
Department of Environment and Climate Change  
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- cc: Mr. Cluney Mercer, P. Eng.  
Senior Associate Engineer - Civil  
Wood Environment & Infrastructure Solutions  
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- cc: Ms. Carla Hayes, P.Tech  
Environmental Scientist, Drinking Water Section  
Water Resources Management Division  
Department of Environment and Climate Change  
P.O. Box 2006  
Corner Brook, NL A2H 6J8



CarlaHayes@gov.nl.ca

### Appendix C - Completion Report

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

Date: **AUGUST 15, 2022**

File No: **842.037.2**  
Permit No: **WS12599-2022**

Permit Holder: **Town of Pasadena**  
**18 Tenth Avenue**  
**Pasadena NL A0L 1K0**  
**bhudson@pasadena.ca**

Attention: **Mr. Brian Hudson**

Re: **Pasadena - Water Treatment Plant Upgrades**

Permission was given for : **upgrades to the existing water treatment system to include the construction and installation of a 4,200 m<sup>3</sup>/d treatment system consisting of cartridge filters, a membrane filtration system, clean in place system consisting of a tank and pumping system and related works and appurtenances as described in a Design Description as well as a set of fifty-one drawings titled "Town of Pasadena Water Treatment Improvements" (MI no. 17-GI-20-00048) as received from Cahill Technical Services on August 3, 2022.**

*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**

WS12599-2022



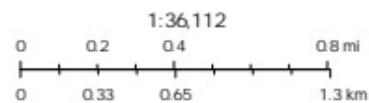
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Intakes / Wellheads

 Intakes

Public Water Supplies

 Protected



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