

## PERMIT TO CONSTRUCT

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Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37, 39, 48

Date: **OCTOBER 10, 2023**

File No: **841.013.1**  
Permit No: **WS13256-2023**

Permit Holder: **Inuit Community Government of Hopedale  
PO Box 190  
Hopedale NL A0P 1G0  
marjorie.flowers@nunatsiavut.com**

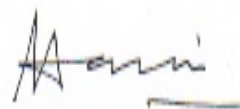
Attention: **Ms. Marjorie Flowers**

Re: **Hopedale - Water Transmission Main and Intake Building Replacement**

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Permission is hereby given for : **the installation of approximately 890 m of 200 mm diameter pre-insulated HDPE water transmission main complete with polyethylene jacket, new heat trace cable, water intake building, SCADA system and related works and appurtenances as shown on a set of revised nineteen drawings, MI no. 17-GI-21-00082 as received from WSP on August 22, 2023 and additional information submitted on August 25, 2023.**

- 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. 13256 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 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.
18. When crossing watercourses which are greater than 4.5 m in width, valves should be provided at both ends of water crossings so that the section can be isolated for testing or repair and the valves shall be easily accessible and not subject to flooding.
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 this Department (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, this Department should be contacted to determine provisions for the disposal of heavily chlorinated water.
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. Drain lines from air release/vacuum valves shall not discharge at the bottom of the chamber next to the floor drain unless there is an air gap on the line to prevent any possibility of backsiphonage of chamber water back into the potable water system. The air gap shall be located at a location on the line just above the crown of the watermain. If an air gap is not possible in this area, the drain line shall be shortened so it discharges higher than the crown of the watermain.
23. 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.

### **SCADA- PtC**

24. The SCADA system shall not be on the same network as other business or municipal computing systems.

25. The SCADA system shall not be located below the level of any water storage basin used in the treatment process or any large diameter pipes.
26. SCADA systems which have network connectivity must have anti-virus applications installed.
27. The computer/master terminal unit containing the SCADA system master database and interface must be kept in a separate server room that can be locked.
28. Multiple firewalls must be installed on the SCADA system if remote access/login is allowed.
29. A spare computer must be provided that contains a backup copy of the SCADA system master database and interface.

#### **Miscellaneous**

30. 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**

31. 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.
32. An undisturbed (no cutting or ground disturbance) buffer zone of at least **150 metres** shall be maintained around American Pond, at least **50 metres** around major lakes and ponds and along both sides of all streams and main tributaries running into American Pond, and at least **30 metres** around all ponds, 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.
33. 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*.
34. 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.
35. 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.
36. Officials of the Department and the appropriate Municipal Authority, Operator, or Watershed Management Committee may visit the site to ensure compliance with this Permit.
37. 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)933-3864. The Environmental Scientist must also be notified immediately at **(709)637-2542**.
38. Motorized vehicles, including snowmobiles and ATVs, shall not be used to cross the frozen surface of American Pond the intake pond within the Protected Public Water Supply Area.

39. Drainage from roads and other disturbed areas, and all water, runoff or effluent from the site, that is pumped or flows by gravity, shall have silt, sludge, sediment, cuttings, and visible turbidity removed by means of sediment boxes, settling tanks, settling ponds, sumps dug into the ground, filtration or other suitable treatment, to less than or equal to 30 milligrams per litre of Total Suspended Solids (TSS), before being discharged to the environment. More specifically, at the last point of control, the final discharge of all water, runoff or effluent must conform to the limits specified in Schedule A of the Environmental Control Water and Sewer Regulations, 2003, <https://www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm>. It is the responsibility of the Permit Holder to demonstrate, that the final discharge meets the requirement of these Regulations.
40. Treated wood shall not be used in a water body or within buffer zones established in Condition 32 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.
41. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
42. 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.
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. 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.
46. 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**

47. 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 two (2), 205 litre barrels or 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.
48. 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.
49. 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)9333864. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at 1-800-563-9089.

50. 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
51. Refueling sites shall be located at least 150 metres from any water body or wetland.

### **Protected Miscellaneous**

52. The Permit Holder must inspect the site daily, and any water quality impairment related problems, such as issues surrounding the impacts resulting from the removal of rock for the new building are to be reported immediately to the Environmental Scientist at (709)637-2542 and the appropriate Municipal Authority or Watershed Monitoring Committee at (709)933-3864.
53. 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.
54. There must be no use of ammonium nitrate-fuel mixtures in or near water due to the production of toxic by-products (ammonia).
55. All 'shock tubes' and detonation wires are to be recovered and removed after each blast.
56. If multiple charges are required, time delay detonation initiators (blasting caps) should be used to reduce the overall detonation to a series of discrete explosions. Time delays for discrete explosions should be greater than 25 ms.
57. If possible, large charges should be subdivided into a series of smaller discrete detonations or explosions using time-delay detonation initiators (a procedure known as decking) to reduce the overall detonation to a series of smaller discrete detonations or explosions.
58. All blasting activities must be carried out by certified, experienced blasting consultants in accordance with all existing government regulations for such work.
59. To limit the impact on the protected public water supply area, the magnitude of explosions shall be limited to only that which is absolutely necessary.

### **Special Conditions**

60. The determination as to which will have the least impact on American Pond, the use of a rock buster or blasting, will be completed by the consulting Engineer.
61. All precautions are to be taken to ensure that blowing debris, such as blast or construction debris does not blow into American Pond.
62. Cleaning of any equipment, including but not limited to, equipment that comes into contact with concrete, paint or blasting equipment if used, is not permitted within the American Pond Protected Public Water Supply Area.

### **Dam Safety**

63. The dam has been conditionally classified in the SIGNIFICANT Consequence category based on the 2007 Canadian Dam Association (CDA) guidelines. To meet the CDA's Dam Safety guidelines (Current Edition) for dams of this classification, the owner must:
- Carry out a Dam Safety Review and submit a Dam Safety Report to this Department within three years of the start of the initial filling of the dam and a maximum of every **ten years** after that,
  - Carry out further dam and spillway inspections at the intervals recommended in the Dam Safety Review to identify any indications of structural failure, leaking, erosion or other problem so that immediate action can be taken to rectify the problem,
  - Carry out dam operation, maintenance and surveillance operations in accordance with the recommendations of the Dam Safety Review so that an acceptable level of the dam safety is ensured.

#### **Dam Maintenance**

64. The transportation of labour and materials to the site must be along existing access roads.
65. The dam and associated works shall be maintained according to the Canadian Dam Association Dam Safety Guidelines and associated Bulletins (most recent edition).
66. Dams and spillways must be inspected regularly to identify any indications or structural failure, leaking, erosion or other problem so that immediate action can be taken to rectify the problem. Inspections must be conducted following any blasting operations conducted as part of this permit.
67. Any work that entails substantial upgrades or repairs to any dam component that: changes the structure or design of the dam, affects dam safety or the physical stability of the dam, poses a risk of potential dam failure, or is deemed of high risk or significant in scope by this Department shall require a separate approval.

#### **General Alterations**

68. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
69. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
70. 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.
71. 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.
72. 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.
73. 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.
74. 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.
75. All waste materials resulting from this project must be disposed of at a site approved by the Department of Digital Government and Service NL.
76. 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.

77. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
78. 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.
79. 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.
80. All work must be carried out within the Permit Holder's legal property boundaries.



**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: Cluney Mercer, P.Eng.  
WSP E&I Canada Limited  
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- cc: Mr. Derek Cull  
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Digital Government and Service NL  
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- 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: Ms. Carla Hayes, P.Tech  
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Department of Environment and Climate Change  
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- cc: Ms. Deneen Spracklin, P.Eng.  
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Water Resources Management Division  
Department of Environment and Climate Change  
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Water Resources Management Division  
Department of Environment and Climate Change  
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- cc: Jeff Bannister (Western and Labrador)  
Western and Labrador Regional Lands Manager  
Crown Lands Administration Division  
Department of Fisheries, Forestry and Agriculture

JeffBannister@gov.nl.ca

cc: Mr. Ehsan Khan, P. Eng.  
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3 London Street, Building 86  
PO Box 3104, Stn B  
Happy Valley-Goose Bay NL A0P 1E0  
ehsankhan@gov.nl.ca

### Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37, 39, 48

Date: **OCTOBER 10, 2023**

File No: **841.013.1**  
Permit No: **WS13256-2023**

Permit Holder: **Inuit Community Government of Hopedale**  
**PO Box 190**  
**Hopedale NL A0P 1G0**  
**marjorie.flowers@nunatsiavut.com**

Attention: **Ms. Marjorie Flowers**

Re: **Hopedale - Water Transmission Main and Intake Building Replacement**

Permission was given for : **the installation of approximately 890 m of 200 mm diameter pre-insulated HDPE water transmission main complete with polyethylene jacket, new heat trace cable, water intake building, SCADA system and related works and appurtenances as shown on a set of revised nineteen drawings, MI no. 17-GI-21-00082 as received from WSP on August 22, 2023 and additional information submitted on August 25, 2023.**

*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**

WS13256-2023



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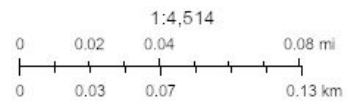
Intakes / Wellheads

 Intakes

 Diversion Pipelines

Public Water Supplies

 Protected



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