

PERMIT TO CONSTRUCT

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

Date: JUNE 08, 2016

File No: 842.115.1
Permit No: WS8681-2016

Permit Holder: Town of Anchor Point
PO Box 117
Anchor Point NL A0K 1A0

Attention: Mr. Gerry Gros

Re: Anchor Point - Water Supply Upgrades

Permission is hereby given for : the removal, cleaning and re-installation of all media in the infiltration gallery, the installation of new washed stone, new geotextile filter with anchors, new screens in the intake chamber, dam repairs and related works and appurtenances as described in a specification entitled "Town of Anchor Point, Water Supply Upgrades" as well as a set of drawings numbered SJN-00228502-A0, sheets 46-01 to 46-03 inclusive as received from Exp Services Inc. on May 27, 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 Conservation 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 the 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 Conservation 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 Community 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. 8681 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. Construction work must be completed by that date or the application and approval procedure must be repeated. The following term(s) are valid for the life cycle of the structure: 29.
13. The drinking water and wastewater 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 or wastewater system to reflect the modification or replacement of the works, where applicable.

Water Systems

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

16. 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.
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.

General Alterations

18. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
19. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
26. 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.
27. 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.
28. All work must be carried out within the proponent's legal property boundaries.

Dam Safety

29. The dam has been conditionally classified in the LOW Consequence category based on the 2007 Canadian Dam Association (CDA) guidelines. A Dam Safety Review is not required for low-consequence dams. However, the consequences of failure should be reviewed periodically, since they may change with downstream development. If the classification increases, a Dam Safety Review is required at that time.

Dam Construction

30. A 4 m wide polyethylene liner shall be installed overlaying a 150 mm layer of sand bedding along the upstream crest and embankment of the dam. The liner will be anchored with a 150 mm layer of sand bedding ovetop and a 300 mm layer of riprap. The liner shall extend 0.5 m horizontally along the dam crest at a height 200 to 300 mm above the existing water elevation.
31. Fill material must be obtained from an approved quarry site. It must not be taken from beaches or streams, and must not be dredged from a body of water.
32. Reservoir shorelines with moderately steep slopes or vulnerability to wave induced erosion, must be adequately protected with armour stone, rip-rap, or by other suitable measures.
33. The reservoir side of the dam structure must be constructed with a 0.3 metre facing of armour stone or rip-rap with a D50= 0.1 m to provide adequate protection from wave or ice induced erosion.
34. Existing fill must be removed from the upstream face and crest of the earthen dam on the north side of the spillway for approximately 30 m to a depth of at least 0.6 m.

35. The finished upstream side of the earthen dam structure shall have a slope of 2 horizontal to 1 vertical.
36. Where pumping is used to bypass flow, cofferdams must be installed both above and below areas of construction. The Permit Holder must provide pumps with sufficient capacity to prevent washout of cofferdams.
37. Cofferdams must be properly designed and constructed of suitable materials to prevent leakage and to resist loss of any material as a result of erosion. Cofferdams must be removed upon completion of their intended function. All material must be removed carefully to prevent disturbance of the water body and to prevent water quality degradation.
38. Every effort shall be made to lower water levels in the reservoir as low as reasonably possible prior to the start of construction.
39. The transportation of labour and materials to the site must be along existing access roads.
40. The dam and spillway must be inspected regularly to identify any indications of structural failure, leaking, erosion or other problem so that immediate action can be taken to rectify the problem.
41. Any cavities or erosion under the spillway will be filled with concrete through the coring of 300 mm diameter holes in the existing spillway. Core holes will also be filled with concrete. Patch and joint repairs to concrete shall be undertaken where necessary. All concrete surfaces to be repaired shall be hydro blasted to clean the surface prior to the concrete overlay.

PPWSA General

42. 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.
43. An undisturbed (no cutting or ground disturbance) buffer zone of at least 150 metres shall be maintained around , at least 50 metres along both sides of all streams and main tributaries running into , 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.
44. 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.
45. 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*.
46. 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.
47. 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, must be notified immediately at (709)456-2011. The Environmental Scientist must also be notified immediately at (709)637-2542.
48. 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.
49. Motorized vehicles, including snowmobiles and ATVs, shall not be used to cross the frozen surface of the intake pond within the Protected Public Water Supply Area.
50. Treated wood shall not be used in a water body or within 150 metres of the high water mark of any water body. The use of creosote treated wood anywhere within the Protected Public Water Supply Area is strictly prohibited.
51. 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.
52. All stationary motorized equipment and fuel tanks shall have metal trays, absorbent pads or impervious liners under them to catch any leaking fuel or oil.

53. 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.
54. Any streams not visible on a 1:50,000 scale map (including field identified streams) shall require a minimum buffer of 30 m.
55. For any clearing inside buffer zones; no ground disturbance (no disturbance to the root mat, no grubbing, or removal of soil) shall take place in the buffer zones. The Permit Holder is to ensure that the appropriate best practices are employed to prevent any detrimental effects that could impact water quality. Where possible, work in buffer zones shall be completed when the ground is frozen.

Fuel Storage

56. 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. Refueling sites shall be located at least 150 metres from any water body or wetland. 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*.
57. A complete oil spill clean-up kit must be on site at all times when gasoline or fuel powered equipment is being used or refueled. 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
58. 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 *Waste Material Disposal Act, RSN 1990 c.W-4*.
59. 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 637-2034 and (709) 456-2011 respectively. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at (709) 722-2083 (call collect) or 1-800-563-9089.
60. Refueling sites shall be located at least 150 metres from any water body or wetland.

Protected Miscellaneous

61. The Permit Holder must inspect the site every day, and any water quality impairment related problems are to be reported immediately to the Environmental Scientist and the appropriate Municipal Authority.
62. 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.

Special Conditions

63. Every effort must be made to avoid soil or sediment from eroding into the reservoir, with special care taken within a 150m buffer around the reservoir as this area may be sensitive to erosion and sedimentation issues.

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: Ms. Carla Hayes, P.Tech
Environmental Scientist , Drinking Water & Wastewater Section
Water Resources Management Division
Department of Environment and Conservation
P.O. Box 2006
Corner Brook NL A2H 6J8
CarlaHayes@gov.nl.ca
- cc: Ms. Deneen Spracklin, P.Eng.
Environmental Engineer, Community Water and Wastewater
Water Resources Management Division
Department of Environment and Conservation
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dspracklin@gov.nl.ca
- cc: Ms. Paula Dawe, P.Eng.
Manager, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Environment and Conservation
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pauladawe@gov.nl.ca
- cc: Mr. Chris Power, P. Eng.
Department of Municipal Affairs
PO Box 2006
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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 Conservation
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cblancha@gov.nl.ca
- cc: Mr. Carl Hann (Western)
Department of Government Services
PO Box 2006
Corner Brook NL A2H 6J8
chann@gov.nl.ca
- cc: Mr. Steve Frizzell, P. Eng.
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St. John's NL A1B 4H7
steven.frizzell@exp.com

Appendix C - Completion Report

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

Date: **JUNE 08, 2016**

File No: **842.115.1**
Permit No: **WS8681-2016**

Permit Holder: **Town of Anchor Point
PO Box 117
Anchor Point NL A0K 1A0**

Attention: **Mr. Gerry Gros**

Re: **Anchor Point - Water Supply Upgrades**

Permission was given for : the removal, cleaning and re-installation of all media in the infiltration gallery, the installation of new washed stone, new geotextile filter with anchors, new screens in the intake chamber, dam repairs and related works and appurtenances as described in a specification entitled "Town of Anchor Point, Water Supply Upgrades" as well as a set of drawings numbered SJN-00228502-A0, sheets 46-01 to 46-03 inclusive as received from Exp Services Inc. on May 27, 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 Conservation 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 Conservation
Water Resources Management Division
PO Box 8700
St. John's NL A1B 4J6