

PERMIT FOR DEVELOPMENT

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 36, 37, 39, 48

Date: **JANUARY 31, 2019**

File No: 550-01-03-11-064
Permit No: PRO9701-2019


Permit Holder: **Stantec Consulting Ltd.
141 Kelsey Drive
St. John's NL A1B 0L2**

Attention: **Mr. Robert Macleod**

Re: **Deer Lake - Humber Canal PPWSA - Drum Removal - Stantec**

Permission is hereby given for : the removal of approximately 55 drums by divers located near the Deer Lake Power penstocks intake in the Humber Canal Protected Public Water Supply Area (used by the towns of Deer Lake and Reidville) with reference to the application dated January 3, 2018, Remedial Action Plan dated May 4, and follow-up email dated May 23, 2018. Also, work involves the installation of a temporary pumping system consisting of two submersible pumps, a 300 mm diameter HDPE water intake, a 300 mm diameter HDPE water transmission main, a 10,000 L holding tank and related works and appurtenances as shown on a revised drawing numbered C1 submitted by Stantec Consulting Ltd. on January 18, 2019 and additional information submitted on January 18, 2019.

- 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 Municipal Affairs and Environment under Section 49 of the *Water Resources Act*.



MINISTER

APPENDIX A
Terms and Conditions for Permit

PPWSA General

1. 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.
2. 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.
3. 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.
4. The attached Completion Report (Appendix C) for Permit No. 9701 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.
5. An undisturbed (no cutting or ground disturbance) buffer zone of at least 150 metres shall be maintained around the Humber Canal, at least 50 metres along both sides of all streams and main tributaries running into the Humber Canal, and at least 30 metres around all ponds and along both sides of all other water bodies. Activity, development or ground disturbance within these buffer zones is prohibited with the exception of the area where activities related to this permit will occur. All buffer zones must be marked with signs or flagging tape to avoid encroachment into the buffer zones.
6. 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.
7. All waste material including but not limited to drum debris removed from the work area 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.*
8. 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.
9. Officials of the Department and the appropriate Municipal Authority, Operator, or Watershed Management Committee may visit the site to ensure compliance with this Permit.
10. 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 must be notified immediately at (709)636-1117 or (709) 636-1116. The Environmental Scientist must also be notified immediately at (709)637-2542.
11. The Permit Holder must inspect the site constantly during the activity, and any water quality impairment related problems, including but not limited to increased siltation near the temporary pumps, are to be reported immediately to the Environmental Scientist at 709-637-2542 and the appropriate Municipal Authority at (709) 636-1117 or (709) 636-1116. This may be achieved with a designated position.
12. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
13. This Permit is valid for six (6) months from the date of issue. If required, an application for Permit renewal must be submitted prior to the expiry date.
14. 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.

15. The proponent is to maintain daily contact with the Town of Deer Lake by calling (709) 636-1117 or (709) 636-1116.
16. Materials used for the construction of the barge cannot include any form of treated wood or any material that could impact the quality of drinking water, including but limited to chemicals, paint or hydrocarbon based materials.
17. All vehicles and equipment must be in good working order with no leaking fuel, oil, or other harmful substances that could impair water quality.
18. 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.

Fuel Storage

19. There shall be no bulk fuel storage associated with this project within the protected water supply area. Fuel for the gas powered boat shall be brought to the operating area at the start of each day in CSA approved fuel cans.
20. 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
21. Contaminated 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*.
22. Any spills of gasoline, fuel or oil, regardless of volume, shall be reported immediately to the Environmental Scientist and the appropriate Municipal Authority by calling 709-637-2542 and (709) 636-1117 or (709) 636-1116 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.
23. Refueling sites for any heavy equipment or large trucks shall be located at least 150 metres from any water body or wetland.
24. The boat used will be refueled on land in a manner that does not impact the Humber Canal. Refueling to occur over absorbent pads.

Protected Miscellaneous

25. 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.
26. The Permit Holder is required to undertake the water quality monitoring program discussed on June 1, 2018 and submitted to the Department on October 29, 2018.

Special Conditions

27. The Remedial Action Plan dated May 4, 2018 and the follow-up clarifying email of May 23, 2018 shall be the undertaken for this project.
28. Activities outlined in the Remedial Action Plan dated May 4, 2018 shall occur in a manner creating minimal turbidity and sediment disturbance.
29. If there will be fuel on site for the operation of the generator, a containment berm capable of containing 110% capacity of the maximum volume of the fuel storage tank must be deployed for the duration of the time fuel is stored. Spill/drip trays shall be used during fuel transfers. Spill kits must be carried on all equipment and trucks.

General Alterations

30. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.

Special Conditions

31. All equipment entering the Humber Canal, including but not limited to, boats and attachments, barges, divers, ROV's, sampling equipment and tools will be cleaned before entering the canal.
32. All materials for the temporary hookup must not have been in prior contact with contaminants.
33. Equipment, including but not limited to, portable pumps that will be used for the alternate water supply connection will be disinfected before installed. After disinfection has occurred, the equipment will be swabbed to confirm proper disinfection has occurred and the results provided to the Environmental Scientist and the Town of Deer Lake before water enters the system.

Water & Sewer General

34. 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*.
35. 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 Municipal Affairs and Environment publication *Guidelines for The Design, Construction, and Operation of Water and Sewerage Systems, 2005*, and as amended from time to time.
36. 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.
37. 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.
38. 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.

Water Systems

39. Under no circumstances shall sewage be permitted to enter the waterline trench during or after construction.
40. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.
41. 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.
42. Backflow prevention devices must be installed where there is a high risk of contamination of the potable water supply.
43. 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.
44. 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.
45. The temporary intake and pumping set-up must not adversely affect the distribution system's ability to maintain a minimum pressure of 140 kPa (20 psi) at ground level at all points in the distribution system under maximum day demand plus fire flow conditions.

Intake

46. A water supply intake may be placed in the Humber Canal as part of the water supply system for the Towns of Deer Lake and Reidville.
47. The intake shall consist of a 300 mm diameter HDPE pipe and a screened intake structure.
48. Pipe zone cutoff walls or other means must be installed to prevent lowering of the water table due to groundwater flow through the porous pipe zone material.

49. 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.
50. 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.
51. Close cut clearing and disposal must be undertaken around the perimeter of the water supply reservoir to an elevation not less than 200 mm above the proposed high water mark. Special care should be exercised to minimize siltation and erosion problems at the new shore wash area.
52. The intake must be fitted with a removable mesh screen or a trash rack.
53. Intake ports must be located above the bottom of the stream, lake or impoundment, but at sufficient depth to be kept submerged at low water levels and below ice level. The intake structure must not draw air.
54. Adequate protection must be provided against clogging by sediment, debris, ice, frazil ice, wind, floatation and wave pressure.

Alterations Municipal Works

55. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
56. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
57. 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.
58. 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.
59. 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.
60. 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.
61. 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.
62. 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.
63. 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.

Water Storage Tanks

64. The water storage tank must be disinfected by an approved method as described in the latest edition of the **AWWA C652 Standard For Disinfection of Water Storage Facilities Standard**. The solution used for disinfecting the water storage reservoir may not be discharged to a water course. After final flushing, samples shall be collected and tested for bacteriological quality. A copy of the test results shall be submitted to this Department (Water Resources Management Division) before the storage reservoir is **placed in service**.
65. The water storage tank, all appurtenances and coatings must meet the latest ANSI/NSF 61 Drinking Water and System Component Standard, the latest AWWA Standards, and any other standards and codes that may be applicable.

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: Amir Ali Khan, Ph.D., P.Eng.
Manager, Water Rights, Investigations and Modelling Section
Water Resources Management Division
Department of Municipal Affairs and Environment
P.O. Box 8700
4th Floor, West Block, Confederation Building
St. John's, NL A1B 4J6
akhan@gov.nl.ca
- cc: Mr. Chris Blanchard, B.Tech (Env), ASCT
Environmental Scientist
Water Resources Management Division
Department of Municipal Affairs and Environment
P.O. Box 2006
Corner Brook, NL A2H 6J8
cblancha@gov.nl.ca
- cc: Ms. Carla Hayes, P.Tech
Environmental Scientist, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Municipal Affairs and Environment
P.O. Box 2006
Corner Brook, NL A2H 6J8
CarlaHayes@gov.nl.ca
- cc: Ms. Deneen Spracklin, P.Eng.
Environmental Engineer, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Municipal Affairs and Environment
P.O. Box 8700
4th Floor, West Block, Confederation Building
St. John's, NL A1B 4J6
dspracklin@gov.nl.ca
- cc: Ms. Paula Dawe, P.Eng.
Manager, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Municipal Affairs and Environment
P.O. Box 8700
4th Floor, West Block, Confederation Building
St. John's, NL A1L 4J6
pauladawe@gov.nl.ca
- cc: Ms. Susan Hoddinott (Western/Labrador)
Regional Director
Service NL
PO Box 2006
Corner Brook NL A2H 6J8
SusanHoddinott@gov.nl.ca
- cc: Town of Deer Lake
Ms. Lori Humphrey
6 Crescent Street
Deer Lake, NL A8A 1E9
deerlake@nf.aibn.com
- cc: Town of Reidville
Ms. Connie Reid
2 Community Square
Reidville, NL A8A 2V7
townofreidville@nf.aibn.com



Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 36, 37, 39, 48

Date: **JANUARY 31, 2019**

File No: **550-01-03-11-064**
Permit No: **PRO9701-2019**

Permit Holder: **Stantec Consulting Ltd.
141 Kelsey Drive
St. John's NL A1B 0L2**

Attention: **Mr. Robert Macleod**

Re: **Deer Lake - Humber Canal PPWSA - Drum Removal - Stantec**

Permission was given for : the removal of approximately 55 drums by divers located near the Deer Lake Power penstocks intake in the Humber Canal Protected Public Water Supply Area (used by the towns of Deer Lake and Reidville) with reference to the application dated January 3, 2018, Remedial Action Plan dated May 4, and follow-up email dated May 23, 2018. Also, work involves the installation of a temporary pumping system consisting of two submersible pumps, a 300 mm diameter HDPE water intake, a 300 mm diameter HDPE water transmission main, a 10,000 L holding tank and related works and appurtenances as shown on a revised drawing numbered C1 submitted by Stantec Consulting Ltd. on January 18, 2019 and additional information submitted on January 18, 2019.

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 Municipal Affairs and Environment 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 Municipal Affairs and Environment
Water Resources Management Division
PO Box 8700
St. John's NL A1B 4J6

APPENDIX D
Location Map for Permit

