

PERMIT TO ALTER A BODY OF WATER

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

Date: **DECEMBER 03, 2020**

File No: **526**

Permit No: **ALT11472-2020**

Permit Holder: **GHD Limited
1118 Topsail Road
P.O. Box 8353
Mount Pearl, NL A1N 5E7
Jamie.O'Neill@ghd.com**

Attention: **Mr. James O. Neill**

Re: **Town of Hawkes Bay - Torrent River - ECCC Environmental Monitoring - Stilling Well
Site Decommissioning**

Permission is hereby given for : **the temporary infilling of approximately 168 tonnes of rock fill and the installation of two (2) monitoring wells and three (3) temporary test pits within the Torrent River PPWSA for the purpose of environmental support for future hydrometric infrastructure development and decommissioning project in reference to the application received on September 28, 2020 and additional information received on November 12, 2020.**

- 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, Climate Change and Municipalities under Section 49 of the *Water Resources Act*.



(for) MINISTER

APPENDIX A
Terms and Conditions for Permit

Geotechnical Testing

1. A water quality monitoring program is not required at this time. However, the Department reserves the right to require that the Permit Holder sample, analyse, and submit results of water quality tests, for the purpose of ensuring that the water quality is maintained within acceptable guidelines. All analyses must be undertaken by a CALA accredited laboratory.
2. The proponent must use existing trails, winter roads or cut lines wherever possible as access routes to limit unnecessary clearing of additional vegetation and prevent soil compaction
3. Monitoring wells and boreholes, when no longer required, must be decommissioned as specified in this Department's policy - **Guidelines for Sealing Groundwater Wells.**
4. Other than emergency repairs, all maintenance of the drill rig or other equipment, must be carried out on land, no closer than 150 metres to any body of water.

Infilling

5. The constructed works must be inspected regularly so that action can be taken to undertake repairs as required.
6. 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.
7. The natural course of any stream must not be altered.
8. Infilling must not cause increased water elevation upstream or increase flow velocity downstream of the site. Reduction of the natural cross sectional area of any watercourse is not permitted.
9. Infilling must not disrupt the established surface drainage pattern of the area.
10. Before infilling, any vegetation and topsoil must be completely removed and under no circumstances shall it be used as fill material. Topsoil must be stored and reused in final landscaping of the infilled area.

Dredging/Debris Removal

11. Alteration of the natural minimum streamflow is not permitted in order to preserve aquatic life.
12. Dredging activity must only be carried out during periods when wind, wave and tide conditions minimize the dispersion of silt and sediment from the work site.
13. The area to be dredged must be enclosed and isolated from the rest of the body of water through the use of a filter fabric curtain or similar method.
14. Dredged material must be disposed of in accordance with the regional Service NL Centre of the Department of Service NL. The Department of Service NL may require samples to be submitted for testing and analysis.

General Alterations

15. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
16. 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*.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
24. 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.
25. 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.
26. 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.
27. The attached Completion Report (Appendix C) for Permit No. 11472 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.
28. 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.
29. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
30. All work must be carried out within the Permit Holder's legal property boundaries.

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 Torrent River for a distance of 1 kilometer upstream, at least **75 metres** along the remainder of Torrent River, at least **50 metres** along both sides of all streams and main tributaries running into Torrent River, and at least **30 metres** around all ponds and along both sides of all other water bodies with the exception of the area required to complete the work. 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 (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)248-5216. The Environmental Scientist must also be notified immediately at **(709)637-2542**.
38. 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.
39. Motorized vehicles, including snowmobiles and ATVs, shall not be used to cross the frozen surface of Torrent River, the intake body of water within the Protected Public Water Supply Area.
40. 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.
41. All drill rigs, pumps, generators, other 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.
42. 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 709-729-1446 and the appropriate Municipal Authority or Watershed Monitoring Committee at 709-248-5216.

43. Any changes in water quality resulting directly from this project, rendering the water unsuitable as a public water supply, are the responsibility of the Permit Holder. The Minister may order the Permit Holder to provide an alternate source of potable water to the affected community until water quality returns to an accepted level.
44. Drilling fluids other than water must be approved by this Department prior to their use.
45. Water, runoff or effluent must not be discharged within 150 meters of a body of water including wetlands, nor in such a manner that it has a direct surface route back to a body of water, including the Torrent River.
46. All vehicles and equipment must be in good working order with no leaking fuel, oil, or other harmful substances that could impair water quality.
47. Any streams not visible on a 1:50,000 scale map (including field identified streams) shall require a minimum buffer of 30 m.
48. 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.
49. Where permits, licences, approvals or authorizations are issued by multiple governments departments or agencies, in the case of similar conditions, the more stringent of the 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.
50. 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, pit privy (outhouse), sub-surface disposal system, 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. If a pit privy (outhouse) or sub-surface disposal system is used, it must be located outside the required buffers, and be subject to Service NL standards, requirements and approval.
51. 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.
52. Any activity within a freshwater body (including wetlands and flood risk areas), requires a Permit under Section 48 of the Water Resources Act, 2002. This Permit refers to Section 39 of the Water Resources Act, 2002 and does not grant permission for the above stated work including fording and/or culvert or bridge installation.

Fuel Storage

53. 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.
54. 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.

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 709-729-1446 and (709) 248-5216 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. 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 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
57. Refueling sites shall be located at least 150 metres from any water body or wetland.

Protected Miscellaneous

58. 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.
59. Dead trees may be removed for fuel wood, or along with brush, be burned on site. Areas for burning shall be located outside any buffer zones. Living trees shall remain uncut.
60. Sawdust, bark, and logs must not be stored within undisturbed buffer zones of any body of water, and must be removed at regular intervals to prevent excessive accumulation at the site.
61. Wood and brush removed from the work site must not be stored within undisturbed buffer zones of any water body.
62. The Permit Holder is required to undertake a water quality monitoring program as outlined below, and all water quality data must be submitted to this Department, within 10 days of the samples being taken.
- Water samples shall be collected from the intake area on Torrent River.
 - Water samples shall be collected before the project begins, once per week while the operation is ongoing, and approximately 10 days after the completion of the project.
 - The following parameters will be included in laboratory analysis: Alkalinity, Aluminum, Ammonia, Antimony, Arsenic, Barium, Boron, Bromide, Cadmium, Calcium, Chloride, Chromium, Colour, Conductivity, Copper, Dissolved Organic Carbon, Fluoride, Hardness, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Nitrate, Nitrite, pH, Potassium, Selenium, Sodium, Strontium, Sulphate, Total Dissolved Solids, Total Kjeldahl Nitrogen, Total Organic Carbon, Total Phosphorus, Turbidity, Uranium, Zinc, BTEX/TPH and Polycyclic Aromatic Hydrocarbons .

Special Conditions

63. At least seven (7) days advance notice of the beginning and end of the planned investigative operations is required. The municipal authority must be notified at (709) 248-5216 and the Environmental Scientist must be notified at (709)637-2542. Any changes in the planned work must also be communicated in a timely manner, and approved with a subsequent Permit or amendment before being undertaken.
64. This work is occurring to investigate potential impacts approximately 900 metres upstream of a drinking water intake. The Department of Environment, Climate Change and Municipalities is requesting a copy of the report submitted to Environment Canada and Climate Change when the report is submitted to ECCC. Please contact the Environmental Scientist at (709)637-2542.
65. Provide the location of the site you will be obtaining all quarry material from to the Environmental Scientist at 709-637-2542 before work begins.

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 Environment, Climate Change and Municipalities
P.O. Box 8700
4th Floor, West Block, Confederation Building
St. John's, NL A1B 4J6
akhan@gov.nl.ca
- cc: Ms. Carla Hayes, P.Tech
Environmental Scientist, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Environment, Climate Change and Municipalities
P.O. Box 2006
Corner Brook, NL A2H 6J8
CarlaHayes@gov.nl.ca
- cc: Ms. Paula Dawe, P.Eng.
Manager, Drinking Water and Wastewater Section
Water Resources Management Division
Department of Environment, Climate Change and Municipalities
P.O. Box 8700
4th Floor, West Block, Confederation Building
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pauladawe@gov.nl.ca
- 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: Fisheries Protection Division
Ecosystem Management Branch
Fisheries and Oceans Canada
P.O. Box 5667
St. John's, NL A1C 5X1
FPP-NL@dfo-mpo.gc.ca
- cc: Town of Hawke's Bay
Ms. Nina Dredge
P.O. Box 58
Hawkes Bay, NL A0K 3B0
hbcouncil@nf.aibn.com

Appendix C - Completion Report

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

Date: **DECEMBER 03, 2020**

File No: **526**

Permit No: **ALT11472-2020**

Permit Holder: **GHD Limited**
1118 Topsail Road
P.O. Box 8353
Mount Pearl, NL A1N 5E7
Jamie.O'Neill@ghd.com

Attention: **Mr. James O. Neill**

Re: **Town of Hawkes Bay - Torrent River - ECCC Environmental Monitoring -
Stilling Well Site Decommissioning**

Permission was given for : **the temporary infilling of approximately 168 tonnes of rock fill and the installation of two (2) monitoring wells and three (3) temporary test pits within the Torrent River PPWSA for the purpose of environmental support for future hydrometric infrastructure development and decommissioning project in reference to the application received on September 28, 2020 and additional information received on November 12, 2020.**

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, Climate Change and Municipalities 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, Climate Change and Municipalities
Water Resources Management Division
PO Box 8700
St. John's NL A1B 4J6

APPENDIX D
Location Map for Permit

