

PERMIT TO CONSTRUCT

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

Date: **MAY 03, 2018**

File No: **843.060.1**
Permit No: **WS9648-2018**


Permit Holder: **Local Service District of Gander Bay South
General Delivery
Gander Bay South NL A0G 2H0**

Attention: **Mr. Marvin Hodder**

Re: **Gander Bay South - Potable Water Dispensing Unit**

Permission is hereby given for : the installation of a Potable Water Dispensing Unit (PWDU) whose process consists of multi-media filter, an activated carbon filter #1, an ion exchange unit, an activated carbon filter #2, a reverse osmosis membrane, UV disinfection, a 1 micron cartridge filter, a 757 litre storage tank, water dispensing area, and all related appurtenances as described in a set of drawings titled "Gander Bay South PWDU Project" as received from Exploits Engineering January 31, 2018 with additional information received on April 30, 2018.

- 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*.
- 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 this 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 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.
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 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.
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. 9648 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. Work must be completed by that date or the application and approval procedure must be repeated.
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. The additional maximum demand for water exerted by consumers who are serviced by this project must not result in an exceedance of the available yield of the water source, maximum rated capacity of the water distribution system, or drinking water treatment plant as specified in the Permit to Operate.
16. Additional water services resulting from this project will 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.

Miscellaneous

17. The Permit Holder must prevent erosion of drainage ditches, streams or other natural bodies of water by installing rip-rap and/or sodding.
18. All drains and vents shall be equipped with screens to prevent the entry of insects, birds and rodents.

Water Treatment

19. An emergency shower and eye wash station that is in compliance with ANSI Z358.1-2014 and meets the requirements of the appropriate Materials Safety Data Sheet (MSDS) shall be installed in a convenient location(s) within each facility.

Potable Water Dispensing Units

20. 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.
21. The potable water dispensing unit must be selected and designed in accordance with the latest version of the guidance document entitled "Selection Criteria and Guidelines for the Design, Construction and Operation of Potable Water Dispensing Units" issued by this Department.
22. The potable water dispensing unit must be operated in accordance with the manufacturer's recommendations and as directed in the "Permit to Operate" issued by this Department.
23. The potable water dispensing unit including all interior and exterior water piping, storage tanks including the finished water clear well, filter media and other receptacles and appurtenances must be disinfected by the following procedure: Operate potable water dispensing system at a normal flow rate with a maximum dose of ozone (above 20 mg/L) for one hour or until storage tank is completely filled. Add sufficient 12% hypochlorite to storage tank to provide a minimum 25 mg/L residual and let stand for 24 hours. Flush storage tank volume through dispensing taps to drain and have bacteriological samples taken by an Environmental Health Officer (Service NL) or a qualified technician from each tap and a second set of samples a minimum of 16 hours later. Both sets of samples obtained must show zero growth of total coliform and *E. coli* or the complete process is to be repeated until sampling results are compliant. System may then be placed into service.
24. A CSA approved backflow prevention device and air gaps shall be used on the water dispensing station's supply lines to prevent the possibility of contaminants entering the potable water system due to back-siphonage.
25. The storage tank's drain line and overflow shall not be directly connected to the building floor drain, but shall be separated from the floor drain by an appropriately sized air gap.
26. Sample taps shall be provided so that water samples can be obtained from the inlet water, various areas throughout the treatment process and the final treated water. Taps used shall be of the smooth-nosed type without interior or exterior threads and shall not have a screen, aerator or other such appurtenance.
27. After the commissioning of the potable water dispensing unit, the Local Service District of Gander Bay South shall initiate a water quality monitoring program to confirm that the treatment unit is supplying water that meets the *Guidelines for Canadian Drinking Water Quality*. This monitoring program shall consist of a minimum of two sampling runs at times chosen by the town and must represent different changes in water quality. Samples shall be taken on the feed water, on the intermediate treated water and on the finished water. Samples shall be tested for RCAP-MS (total metals), total THMs, total HAAs, total coliform and *E. coli*. Additional sampling may be required by this Department prior to accepting the unit as a viable water treatment system. If the system cannot meet the *Guidelines for Canadian Drinking Water Quality*, then changes and additions to the process must be carried out to bring the unit in compliance.
28. Sampling results shall be submitted to this Department as they are received by the town.

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: Mr. Chris Blanchard, B.Tech.(Env), ASCT
Environmental Scientist
Water Resources Management Division
Department of Municipal Affairs and Environment
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Water Resources Management Division
Department of Municipal Affairs and Environment
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Appendix C - Completion Report

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

Date: **MAY 03, 2018**

File No: 843.060.1
Permit No: WS9648-2018

Permit Holder: **Local Service District of Gander Bay South
General Delivery
Gander Bay South NL A0G 2H0**

Attention: **Mr. Marvin Hodder**

Re: **Gander Bay South - Potable Water Dispensing Unit**

Permission was given for : the installation of a Potable Water Dispensing Unit (PWDU) whose process consists of multi-media filter, an activated carbon filter #1, an ion exchange unit, an activated carbon filter #2, a reverse osmosis membrane, UV disinfection, a 1 micron cartridge filter, a 757 litre storage tank, water dispensing area, and all related appurtenances as described in a set of drawings titled "Gander Bay South PWDU Project" as received from Exploits Engineering January 31, 2018 with additional information received on April 30, 2018.

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