

## PERMIT TO CONSTRUCT

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

Date: **SEPTEMBER 01, 2020**

File No: **841.001.1**  
Permit No: **WS11277-2020**

Permit Holder: **Town of Wabush  
15 Whiteway,  
P.O. Box 190, Wabush, NL  
A0R 1B0  
townmanager@wabush.ca**

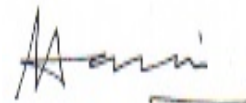
Attention: **Mr. Charlie Perry, Town Manager**

Re: **Wabush - Wastewater Treatment Facility**

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Permission is hereby given for : **the installation of a new wastewater treatment facility with a peak capacity of 8,800 m<sup>3</sup>/day to include: an automated coarse screen system, by-pass channel with a manual bar screen, a grit channel system, two aerated lagoon cells in series, UV disinfection system consisting of two UV banks in series, a sewage pumping station, and related works and appurtenances as described on a set of revised drawings titled, "Wastewater Treatment Facility, Wabush, NL (Package A)RFP No. 17-MYCW-19-00071)" as received from Pomerleau/Exp. on August 31, 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 Municipal Affairs and Environment 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. 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. 11277 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. The drinking water and wastewater system shall be operated and maintained in accordance with the Permit to Operate issued by this Department.
14. 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.
15. 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.

### **Wastewater Treatment**

16. Effluent from the wastewater treatment facility must meet the *Environmental Control Water and Sewage Regulations, 2003* and the federal *Wastewater Systems Effluent Regulations, 2012*.
17. The municipal water system and the potable water piping system within any part of the treatment facility, shall be protected from the potential backflow of sewage due to back-siphonage or backpressure with the use of certified backflow prevention devices. In this case, the minimum device(s) to be used on the all buildings service lines shall be a certified reduced pressure zone backflow preventer, meeting or exceeding CSA 64.4. This device must be tested on an annual basis by a certified tester. This device must be tested on an annual basis by a certified tester. For protection of water users within any of the buildings, appropriate backflow preventers shall be attached to any hose bibb connection or water line where there is the possibility of contaminants entering the potable water system due to back-siphonage or backpressure.
18. There shall be no connection made to the water supply line within the treatment facility prior to the reduced pressure zone backflow preventer.
19. The treatment facility must be equipped with a hydrogen sulfide and combustible solvent detection system which controls an audible alarm and an alarm light. The alarm light is to be located in an area(s) where it can be easily seen on approach to the building.
20. Standby or backup power shall be provided where discharges may endanger public health or the environment, for aeration systems, activated sludge systems, and disinfection systems.
21. Flow measurement facilities shall be provided on all wastewater treatment plants for monitoring of the final discharged effluent.
22. The wastewater treatment plant shall be enclosed by a fence.
23. The wastewater treatment plant shall be equipped with adequate gas detectors.
24. Adequate means or equipment for removing screenings shall be provided.
25. A screened bypass channel shall be provided.
26. Grit removal shall be provided in the headworks of all wastewater treatment plants. Grit removal systems shall be located upstream of the lagoon cells and downstream of any coarse bar racks. Channel type grit removal facilities shall have at least one unit with bypass. Indoor grit removal facilities shall be provided with air exchange systems and outdoor facilities shall be protected from freezing.
27. Emergency generators and fuel storage tanks must be approved by Service NL.

28. The Water Resources Management Division of this Department is to be informed prior to start-up or restart-up of the sewage treatment facility. Specifically, this Division must be given adequate notice of manufacturer's training sessions and demonstrations of all major components as well as full plant initiation so that a representative may be present.
29. Riprap or other erosion control is required around all piping inlets and outlet in lagoons.
30. All lagoon cells shall be provided with an emergency overflow system.
31. A system of wells or lysimeters shall be installed around the perimeter of the lagoon/wetland treatment system to facilitate groundwater monitoring.
32. Drainage from mechanical sludge dewatering units shall be returned to the wastewater treatment plant.
33. Any wastewater treatment facility that is designed to collect or collects an average daily volume of 100m<sup>3</sup> or more of influent must adhere to the requirements of the federal *Wastewater Systems Effluent Regulations, 2012*.

#### **Lift Stations and Forcemains**

34. The sewage lift station must be equipped with a manual line transfer switch to accommodate an auxiliary power source during power outages.
35. There shall be at least **3.0 m** horizontal separation between water mains and sanitary sewer forcemains. Watermains crossing forcemains shall be laid to provide a minimum vertical separation of **450 mm** between the crown of the forcemain and the invert of the watermain. **Also in this regard, one full length of watermain should be centered over the forcemain so that both joints will be as far from the forcemain as possible.**
36. Forcemains shall enter the gravity sanitary sewer at a point not more than 600 mm above the flow line of the receiving manhole.
37. The direct connection of sanitary sewer services to sewage lift stations is not permitted. Connection may be made to a sanitary sewer main leading to the sewage lift station, or to a manhole immediately prior to the sewage lift station provided the sanitary sewer service lateral enters the manhole at the flow line.
38. Contingency plans must be established for mechanical and extended electrical failure for all sewage pumping stations. Alarm systems shall be activated in cases of power failure, pump failure, unauthorized entry, or any cause of pump station malfunction.
39. The proposed sewage pump station must be in compliance with the Department of Municipal Affairs and Environment *Municipal Water, Sewer and Roads Master Construction Specifications*.
40. A sewage pumping station shall be equipped with an alarm system that shall be activated in cases of power failure, pump failure, sump pump failure, unauthorized entry, or any cause of a pump station malfunction.
41. A sewage pumping station shall have a minimum suction line of 100 mm.
42. The proposed sewage lift station must be equipped with a manual line transfer switch to accommodate an auxiliary power source during power outages. A portable gas pump by itself is not acceptable.

#### **Water & Sewer Installation**

43. Where the horizontal separation between watermains (including hydrant leads and drains) and gravity sanitary sewers is less than 3.0 metres, the watermain shall be laid in a separate trench, or on an undisturbed earth shelf located on one side of the sanitary sewer and at such an elevation that the invert of the watermain shall be a minimum of 450 mm above the crown of the sanitary sewer and 300 mm horizontally from the sanitary sewer measured edge to edge.

44. Watermains (including hydrant leads) crossing gravity sanitary sewers should be laid to provide a minimum vertical distance of 450 mm between the outside of the watermain and the outside of the sanitary sewer. This should be the case where the watermain is either above or below the sanitary sewer with preference to the watermain located above the sanitary sewer. At crossings, above or below, one full length of water pipe shall be located so both joints will be as far from the sanitary sewer as possible. Special structural support for the water and/or sewer pipes may be required.

### **Commissioning and Monitoring**

45. The wastewater treatment system shall meet the required performance standards/criteria/objectives as established in the Request for Proposals.
46. This Department must be informed of the date of commission of the wastewater treatment system.
47. This Department shall require quarterly reporting of grab samples of wastewater influent and effluent quality analysed at an accredited lab or in house, as applicable, for the following parameters: CBOD5, TSS, un-ionized ammonia, total phosphorous, Total Coliforms and *E. Coli* counts (diluted if necessary), pH, temperature (grab sample or in-situ). Results must be reported to the regional Environmental Scientist on a quarterly basis. At least one sample a year must be analysed for other parameters as referenced in Schedule A of the provincial *Environmental Control Water and Sewage Regulations, 2003*.
48. Effluent quantity and quality sampling and reporting shall be undertaken in accordance with the federal *Wastewater Systems Effluent Regulations, 2012* and the requirements of this Permit.

### **Alternative Disinfection**

49. UV systems used to disinfect wastewater must be equipped with a meter to monitor transmittance. Flow gates and weirs shall be used to control the water level over the top of the UV lamps.

### **Miscellaneous**

50. The Permit Holder must prevent erosion of drainage ditches, streams or other natural bodies of water by installing rip-rap and/or sodding.
51. This project involves the handling and/or dealing with asbestos cement pipe from certain portions of the work area. Any removal, handling or transport and disposal of asbestos must be carried out in accordance with the Asbestos Abatement Regulations 1998 under the Occupational Health and Safety Act. For further information, contact a Hazardous Materials Officer with Service NL, Occupational Health & safety Division at (709) 729-5536 or 729-7037.
52. All drains and vents shall be equipped with screens to prevent the entry of insects, birds and rodents.
53. The ends of drains and overflows shall be located so as to prevent erosion. Where necessary, concrete or similar splash plates shall be located below the end of the overflow, and the immediate surrounding area shall be filled to a depth of 10 cm with 19 mm minus stone to prevent ponding.

**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: Mr. Daniel Bennett  
Pomerleau Inc.  
1496 Bedford Highway, Suite 500  
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daniel.bennett@pomerleau.ca
- cc: Mr. Chris Blanchard, B.Tech.(Env), AScT  
Environmental Scientist  
Water Resources Management Division  
Department of Municipal Affairs and Environment  
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- cc: Ms. Deneen Spracklin, P.Eng.  
Environmental Engineer, Drinking Water and Wastewater Section  
Water Resources Management Division  
Department of Municipal Affairs and Environment  
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- cc: Mr. Ehsan Khan, P. Eng.  
Municipal Affairs & Environment  
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PO Box 3104, Stn B  
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- cc: Mr. Glenn Coates  
Occupational Health and Safety Officer  
Occupational Health & Safety, Service NL  
P.O. Box 8700  
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- cc: Ms. Susan Hoddinott (Western/Labrador)  
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SusanHoddinott@gov.nl.ca
- cc: Mr. Tony Whalen, P. Eng.  
exp Services Inc.  
1133 Regent Street, Suite 300  
Fredericton NB E3B 3Z2  
tony.whelen@exp.com



**Appendix C - Completion Report**

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

Date: **SEPTEMBER 01, 2020**

File No: **841.001.1**  
Permit No: **WS11277-2020**

Permit Holder: **Town of Wabush  
15 Whiteway,  
P.O. Box 190, Wabush, NL  
A0R 1B0  
townmanager@wabush.ca**

Attention: **Mr. Charlie Perry, Town Manager**

Re: **Wabush - Wastewater Treatment Facility**

Permission was given for : **the installation of a new wastewater treatment facility with a peak capacity of 8,800 m3/day to include: an automated coarse screen system, by-pass channel with a manual bar screen, a grit channel system, two aerated lagoon cells in series, UV disinfection system consisting of two UV banks in series, a sewage pumping station, and related works and appurtenances as described on a set of revised drawings titled, "Wastewater Treatment Facility, Wabush, NL (Package A)RFP No. 17-MYCW-19-00071)" as received from Pomerleau/Exp. on August 31, 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 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