

PERMIT FOR DEVELOPMENT

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

Date: **MARCH 05, 2020**

File No: **550-01-03-11-082**

Permit No: **PRO10769-2020**

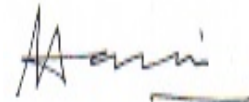
Permit Holder: **DMG Consulting Ltd.
185 Roe Avenue
P.O. Box 194
Gander, NL, A1V 1W6
don.dicesare@dmg.nf.ca**

Attention: **Mr. Don Dicesare, P. Eng.**

Re: **Portland Creek - Unnamed Streams PPWSA - Reservoir and Dam Upgrades - DMG Consulting Limited**

Permission is hereby given for : **upgrades to the reservoir and replacement of the dam in the Unnamed Streams Protected Public Water Supply Area (used by the LSD of Portland Creek) with reference to the application dated July 22, 2019 and additional information and drawings provided on October 17, 2019 and February 4, 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

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. 10769 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 Unnamed Streams , at least **50 metres** along both sides of all streams and main tributaries running into Unnamed Streams, 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.
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 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. 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.
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, Mayor, Chair of the Local Service District Committee, or Chair of the Water Supply Committee must be notified immediately at (709)898-2409. The Environmental Scientist must also be notified immediately at **(709)637-2542.**
11. 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.

12. Motorized vehicles, including snowmobiles and ATVs, shall not be used to cross the frozen surface of the reservoir for Unnamed Streams within the Protected Public Water Supply Area.
13. Treated wood shall not be used in a water body or within buffer zones established in Condition 5 of any water body measured from the high water mark. The use of creosote treated wood anywhere within the Protected Public Water Supply Area is strictly prohibited.
14. 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 709-637-2542 and the appropriate Municipal Authority or Watershed Monitoring Committee at (709)898-2409.
15. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
16. This Permit is valid for two (2) years from the date of issue. If required, an application for Permit renewal must be submitted prior to the expiry date.
17. 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.
18. Fill material for this work will be taken from outside the Protected Public Water Supply Area, at a site approved by the Department. Fill material will be from a stockpile that has not been in contact with any other materials that may adversely impact it or have additional materials added to it
19. All vehicles and equipment must be in good working order with no leaking fuel, oil, or other harmful substances such as mud, that could impair water quality.
20. All stationary 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.
21. 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.
22. 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.
23. Any streams not visible on a 1:50,000 scale map (including field identified streams) shall require a minimum buffer of 30 m.
24. 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.

25. 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.

Fuel Storage

26. 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.

27. 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

28. 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.

29. 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 709-637-2542 and (709) 898-2409 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.

30. Refueling sites shall be located at least 150 metres from any water body or wetland.

Protected Miscellaneous

31. 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.

32. 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.

33. Wood and brush removed from the work site must not be stored within undisturbed buffer zones of any water body.

34. 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 for approval before residents are switched back to the supply. Results must be submitted to this Department within 7 days of the samples being taken.
- A water sample shall be collected from the intake area reservoir on Unnamed Streams the day after work has been completed.
 - Contact the Environmental Scientist at (709) 637-2542 to obtain a list of parameters and approved laboratories.

Dam/Reservoir Design

35. The dam and appurtenant structures shall be constructed at the following coordinates:

Name	Datum	Northing (m)	Easting (m)	Zone
Portland Creek Water Supply Dam	5557751	368015	83	21

36. Reservoirs must be provided with a spillway of adequate capacity to safely discharge design flows at non-erosive velocities without causing flooding of the reservoir or damage to the spillway or section downstream channel.
37. The dam and associated works shall be designed according to the Canadian Dam Association Dam Safety Guidelines and associated Bulletins (most recent edition).
38. The dam and associated works must be designed and constructed under the direct supervision of an engineer eligible for membership with the Professional Engineers and Geoscientists of Newfoundland and Labrador (or equivalent Canadian organization) who is able to demonstrate competence in the design, construction, and surveillance of dams.

Dam Construction

39. 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.
40. The downstream side of the overflow dam structure must be constructed with a layer of armour stone or rip-rap with a D50 = 250 mm to prevent erosion of the structure when overtopping occurs.
41. Construction must be conducted in dry conditions.
42. The transportation of labour and materials to the site must be along existing access roads or trails.
43. 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.
44. A PVC liner shall be installed overlaying a 50mm bedding layer along the upstream facing of the tailings dam embankment. The liner will be anchored in a trench at the dam crest and tied into the foundation using a precast concrete butt joist.
45. An experienced geosynthetics installer will install the geomembrane liner associated with this project. installation will be carried out in accordance with the International Association of Geosynthetic Installers and Geosynthetics Research Institute industry standards.

Dam Safety

46. 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.

General Alterations

47. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
48. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
49. 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*.
50. 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.
51. 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.
52. 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.
53. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
54. 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.
55. Pictures must be submitted along with the completion report, showing the project site prior to and after development.

Water Systems

56. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.
57. 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.
58. Backflow prevention devices should/must be installed on service connections where there is a high risk of contamination of the potable water supply.
59. 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.

Intake

60. A temporary water supply intake may be placed in Gully Brook as part of the water supply system for the LSD of Portland Creek .
61. A water sample from the temporary water source shall be collected, analyzed by an accredited laboratory and approved by this Department prior to the commissioning of the temporary intake. The following parameters shall be test for: 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.
62. 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.
63. The intake must be fitted with a removable mesh screen or a trash rack.
64. 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.
65. Adequate protection must be provided against clogging by sediment, debris, ice, frazil ice, wind, floatation and wave pressure.

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: 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
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CarlaHayes@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
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pauladawe@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: Local Service District of Portland Creek
Chairperson
General Delivery
Portland Creek, NL A0K 4G0



Appendix C - Completion Report

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

Date: **MARCH 05, 2020**

File No: **550-01-03-11-082**
Permit No: **PRO10769-2020**

Permit Holder: **DMG Consulting Ltd.**
185 Roe Avenue
P.O. Box 194
Gander, NL, A1V 1W6
don.dicesare@dmg.nf.ca

Attention: **Mr. Don Dicesare, P. Eng.**

Re: **Portland Creek - Unnamed Streams PPWSA - Reservoir and Dam Upgrades -
DMG Consulting Limited**

Permission was given for : **upgrades to the reservoir and replacement of the dam in the Unnamed Streams Protected Public Water Supply Area (used by the LSD of Portland Creek) with reference to the application dated July 22, 2019 and additional information and drawings provided on October 17, 2019 and February 4, 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

APPENDIX D
Location Map for Permit

