

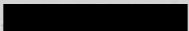
PERMIT FOR DEVELOPMENT

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

Date: **SEPTEMBER 18, 2015**

File No: **550-01-02-12-025**
Permit No: **PRO8287-2015**

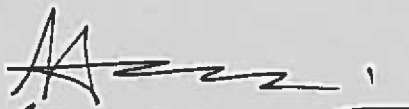
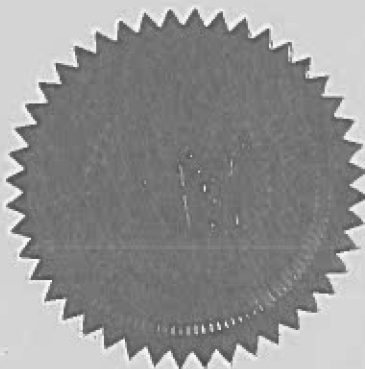
Permit Holder: **Indian Bay Ecosystem Corporation**
General Delivery
Indian Bay NL A0G 2V0

Attention: 

Re: **Indian Bay-Indian Bay Brook PPWSA-Works and Debris Removal-Indian Bay Ecosystems Corporation**

Permission is hereby given for : **repair of a bridge, replacement of existing deteriorated bridge, removal of collapsed bridge wreckage, replacement of two (2) existing deteriorated culverts, inside the Indian Bay Pond PPWSA (used by the Town of Indian Bay) with reference to the applicatons received on July 16, 2015, August 13 and 25, 2015 and additional information provided up to and on September 17, 2015.**

- 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 and Conservation 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

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 the 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. 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.
5. 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.*
6. 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.
7. 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.
8. Officials of the Department and the appropriate Municipal Authority, Operator, or Watershed Management Committee may visit the site to ensure compliance with this Permit.
9. 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)678-2727. The Environmental Scientist must also be notified immediately at (709) 292-4220.
10. 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.
11. Motorized vehicles, including snowmobiles and ATVs, shall not be used to cross the frozen surface of the intake pond within the Protected Public Water Supply Area.
12. Treated wood shall not be used in a water body or within 30 metres of the high water mark of any water body. The use of creosote treated wood anywhere within the Protected Public Water Supply Area is strictly prohibited.
13. 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.
14. All vehicles and equipment must be in good working order with no leaking fuel or oil.
15. 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.
16. 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.

17. Any streams not visible on a 1:50,000 scale map (including field identified streams) shall require a minimum buffer of 30 m.
18. 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.

Fuel Storage

19. 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.
20. 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 *Waste Material Disposal Act*, RSN 1990 c.W-4.
21. 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 292-4220 and (709) 678-2727 respectively. Furthermore, all spills in excess of 70 litres shall be reported immediately to the 24 hour spill report line at (709) 722-2083 (call collect) or 1-800-563-9089.
22. 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 ax
 - Five metres of containment boom
 - Five absorbent pads
 - Twenty-five litres of loose absorbent material

Dredging

23. Alteration of the natural minimum streamflow is not permitted in order to preserve aquatic life.
24. The natural course of any stream must not be altered.
25. 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.
26. 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.
27. 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

28. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
29. 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*.
30. 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.
31. 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.
32. 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.
33. 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.

34. 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.
35. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
36. 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.
37. 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.
38. The attached Completion Report (Appendix C) for Permit No. 8287 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.
39. 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.
40. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.

Culvert Design

41. The crossing structure must provide adequate capacity to safely discharge flood flows without causing backwater effects upstream or increased flow velocity downstream.
42. To safely convey peak flows the culvert installation must be designed according to the following hydraulic criteria:

Crossing Name / No.	Minimum Diameter (mm)	Number of Pipes	Length (m)
Number 22 Brook	1219.2	2	12.8

Culvert Installation

43. Drainage ditches must collect and transport surface runoff in a manner that does not cause flooding, erosion or sedimentation of adjacent land or receiving waters.
44. Inlet and outlet areas of culvert installations must be adequately protected from erosion by placing rip-rap, fitted stone, or concrete headwalls.
45. Culvert installations must follow the stream channel gradient to the maximum extent possible and placed in line with the direction of the main flow to minimize disturbance to the channel. Culverts must not disrupt the flow of water or cause ponding at the upstream side of the installation.
46. In multiple culvert installations, one culvert must be set a minimum of 150 mm lower than the others to provide adequate water depth and velocity for fish passage during low flow conditions. In addition, multiple culverts must be installed within 0.6 to 0.9 metres apart for maximum stability.
47. 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.
48. 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.
49. All work involving minor alteration to the stream channel to permit culvert placement must be carried out at a time of low flow, and in a manner that prevents downstream siltation and unnecessary alteration of the channel.
50. Grading and finishing of roadways or road embankments must not cause damage to culverts or allow road material to enter the watercourse.

51. Roadside embankments near the watercourse must be adequately protected from erosion by sodding, seeding or placing of rip-rap.
52. Culverts must be inspected regularly so that immediate action can be taken to clear blockages caused by ice or debris or to undertake repairs as required.
53. The inlet and outlet of culverts must be clearly marked so that operators of road grading and snow clearing equipment can avoid blocking culverts.
54. Any damage to culverts during installation or due to inadequate capacity and/or improper construction must be reported to this Department. Damaged culverts must be replaced immediately to prevent overtopping, erosion, or flooding.
55. If a culvert is installed in natural fish habitat it must be embedded a minimum of 150 mm below the natural streambed (up to a maximum of 1/3 of the culvert diameter).

Small Bridges

56. The use of creosote treated wood is strictly prohibited within 15 metres of all bodies of fresh water in the province.
57. The crossing structure must provide adequate capacity to safely discharge flood flows without causing backwater effects upstream or increased flow velocity downstream.
58. Bridge abutments must be set back 0.5 metres from the normal edge of a watercourse to prevent constriction during high flow conditions.
59. The natural course of any stream must not be altered.
60. 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.
61. Piers must be designed to prevent failure resulting from scouring of streambed material.
62. The upstream and downstream sides of abutments must be protected with rip-rap, concrete or heavy timber to prevent erosion and scouring.
63. 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.
64. 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.
65. Abutments and piers must be constructed in the dry and during times of low flow.
66. The bridge(s) must have the following minimum dimensions:

Crossing Name / No.	Span (m)	Waterway Opening (m²)	Freeboard (m)
Indian Bay Park	5.79	12.19	1.22

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: Dr. Abdel-Zaher Kamal Abdel-Razek, Ph. D., P.Eng
Manager, Water Rights and Investigations Section
Water Resources Management Division
Department of Environment and Conservation
P.O. Box 8700
St. John's NL A1B 4J6
- cc: Mr. Paul James (C)
Environmental Scientist
Department of Environment and Conservation
Water Resources Management Division
Provincial Building
Grand Falls-Windsor NL A2A 1W9
- cc: Ms. Paula Dawe, P.Eng.
Environmental Engineer, Drinking Water and Wastewater Section
Water Resources Management Division
Dept. of Environment and Conservation
PO Box 8700
St. John's, NL
A1B 4J6
- cc: Mr. Rodger Primmer (C)
Manager, Central Regional Crown Lands
PO Box 2222
Gander NL A1V 1T5
- cc: Mr. Robert Turner (Central)
Manager of Operations
Service NL
PO Box 2222
Gander NL A1V 2N9
- cc: Fisheries Protection Division
Ecosystem Management Branch
Fisheries and Oceans Canada
P.O. Box 5667
St. John's NL A1C 5X1
- cc: Town of Indian Bay
Ms. Elaine Feltham
General Delivery
Indian Bay NL A0G 2V0

Appendix C - Completion Report

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

Date: **SEPTEMBER 18, 2015**

File No: **550-01-02-12-025**

Permit Holder: **Indian Bay Ecosystem Corporation
General Delivery
Indian Bay NL A0G 2V0**

Permit No: **PRO8287-2015**

Attention: **[REDACTED]**

Re: **Indian Bay-Indian Bay Brook PPWSA-Works and Debris Removal-Indian Bay Ecosystems Corporation**

Permission was given for : **repair of a bridge, replacement of existing deteriorated bridge, removal of collapsed bridge wreckage, replacement of two (2) existing deteriorated culverts, inside the Indian Bay Pond PPWSA (used by the Town of Indian Bay) with reference to the applications received on July 16, 2015, August 13 and 25, 2015 and additional information provided up to and on September 17, 2015.**

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

APPENDIX D
Location Map for Permit

