



Government of Newfoundland and Labrador  
Department of Municipal Affairs and Environment  
Water Resources Management Division

**PERMIT TO ALTER A BODY OF WATER**

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

Date: **JULY 06, 2020**

File No: **528**  
Permit No: **ALT11161-2020**

Permit Holder: **Labrador Island Link Limited Partnership**  
**500 Columbus Drive**  
**St. John's, NL A1B 4K7**  
**JackieWells@nalcenergy.com**

Attention: **Jackie Wells**

Re: **Upgrading and rehabilitation of existing bridges and culverts along the access road of Labrador-Island Transmission Link in Labrador - Segment 1**

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Permission is hereby given for : **upgrading and rehabilitation of ninety four (94) bridges and culverts, which were originally constructed on a temporary basis during the construction of Labrador-Island Transmission Link, along the access road in segment-1 in Labrador (between 21U 435284mE, 5788973mN and 20U 650260mE, 5900456mN) to retain them in existing locations as permanent structures in order to facilitate inspection, repairing and maintenance of the Transmission Link, with reference to the application dated April 17, 2020 and additional information received on May 12, May 21, June 5, and June 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 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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**Culvert Design**

1. The crossing structure must provide adequate capacity to safely discharge flood flows without causing backwater effects upstream or increased flow velocity downstream.
2. To safely convey peak flows the culvert installations must be designed according to the following hydraulic criteria:  
A complete list of culverts as per the following table in Appendix E

<b>Crossing Name / No.</b>	<b>Northing</b>	<b>Easting</b>	<b>UTM Zone</b>	<b>Design Return Period (years)</b>	<b>Design Flow (m<sup>3</sup>/s)</b>	<b>Minimum Size (mm)</b>	<b>Number of Pipes</b>	<b>Length (m)</b>	<b>PPWSA</b>
<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>	<b>See Appx E</b>

**Culvert Installation**

3. 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.
4. Inlet and outlet areas of culvert installations must be adequately protected from erosion by placing rip-rap, fitted stone, or concrete headwalls.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. Grading and finishing of roadways or road embankments must not cause damage to culverts or allow road material to enter the watercourse.
11. Roadside embankments near the watercourse must be adequately protected from erosion by sodding, seeding or placing of rip-rap.

12. 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.
13. The inlet and outlet of culverts must be clearly marked so that operators of road grading and snow clearing equipment can avoid blocking culverts.
14. 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.
15. 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).

#### **Bridge Design**

16. The crossing structure must provide adequate capacity to safely discharge flood flows without causing backwater effects upstream or increased flow velocity downstream.
17. Piers must be designed to prevent failure resulting from scouring of streambed material.
18. The bridge(s) must have the following minimum dimensions: A complete list of bridges as per the following table in Appendix F

<b>Crossing Name / No.</b>	<b>Northing</b>	<b>Easting</b>	<b>UTM Zone</b>	<b>Design Return Period (years)</b>	<b>Design Flow (m<sup>3</sup>/s)</b>	<b>Span (m)</b>	<b>Waterway Opening (m<sup>2</sup>)</b>	<b>Height Above Stream Bed (m)</b>	<b>Freeboard (m)</b>	<b>PPWSA</b>
<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>	<b>See Appx F</b>

#### **Bridge Construction**

19. The use of creosote treated wood is strictly prohibited within 15 metres of all bodies of fresh water in the province.
20. 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.
21. Bridge abutments must be set back 0.5 metres from the normal edge of a watercourse to prevent constriction during high flow conditions.
22. 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.
23. The upstream and downstream sides of abutments must be protected with rip-rap, concrete or heavy timber to prevent erosion and scouring.
24. 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.
25. 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.

26. Abutments and piers must be constructed in the dry and during times of low flow.
27. Roadside embankments near the watercourse must be adequately protected from erosion by sodding, seeding or placing of rip-rap.
28. Adequate erosion protection must be provided where roadside ditches discharge into watercourses near bridges.

#### **General Alterations**

29. Any work that must be performed below the high water mark must be carried out during a period of low water levels.
30. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.
31. 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*.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. 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.
38. 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.
39. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.
40. 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.
41. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.
42. 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.
43. 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.

44. The attached Completion Report (Appendix C) for Permit No. 11161 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.
45. 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.
46. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.
47. All work must be carried out within the Permit Holder's legal property boundaries.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
Department of Municipal Affairs and Environment

File No: **528**  
Permit No: **ALT11161-2020**

**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: Amir Ali Khan, Ph.D., P.Eng.  
Manager, Water Rights, Investigations and Modelling Section  
Water Resources Management Division  
Department of Municipal Affairs and Environment  
P.O. Box 8700  
4th Floor, West Block, Confederation Building  
St. John's, NL A1B 4J6  
akhan@gov.nl.ca
- cc: File Copy for Binder
- cc: Jeff Bannister (Western and Labrador)  
Western and Labrador Regional Lands Manager  
Crown Lands Administration Division  
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: Mark Bugden  
Senior Analyst  
Executive Council  
Indigenous Affairs  
mbugden@gov.nl.ca



Government of Newfoundland and Labrador  
Department of Municipal Affairs and Environment  
Water Resources Management Division

### Appendix C - Completion Report

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

Date: **JULY 06, 2020**

File No: **528**

Permit No: **ALT11161-2020**

Permit Holder: **Labrador Island Link Limited Partnership  
500 Columbus Drive  
St. John's, NL A1B 4K7  
JackieWells@nalcenergy.com**

Attention: **Jackie Wells**

Re: **Upgrading and rehabilitation of existing bridges and culverts along the access road of  
Labrador-Island Transmission Link in Labrador - Segment 1**

Permission was given for : **upgrading and rehabilitation of ninety four (94) bridges and culverts, which were originally constructed on a temporary basis during the construction of Labrador-Island Transmission Link, along the access road in segment-1 in Labrador (between 21U 435284mE, 5788973mN and 20U 650260mE, 5900456mN) to retain them in existing locations as permanent structures in order to facilitate inspection, repairing and maintenance of the Transmission Link, with reference to the application dated April 17, 2020 and additional information received on May 12, May 21, June 5, and June 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 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.

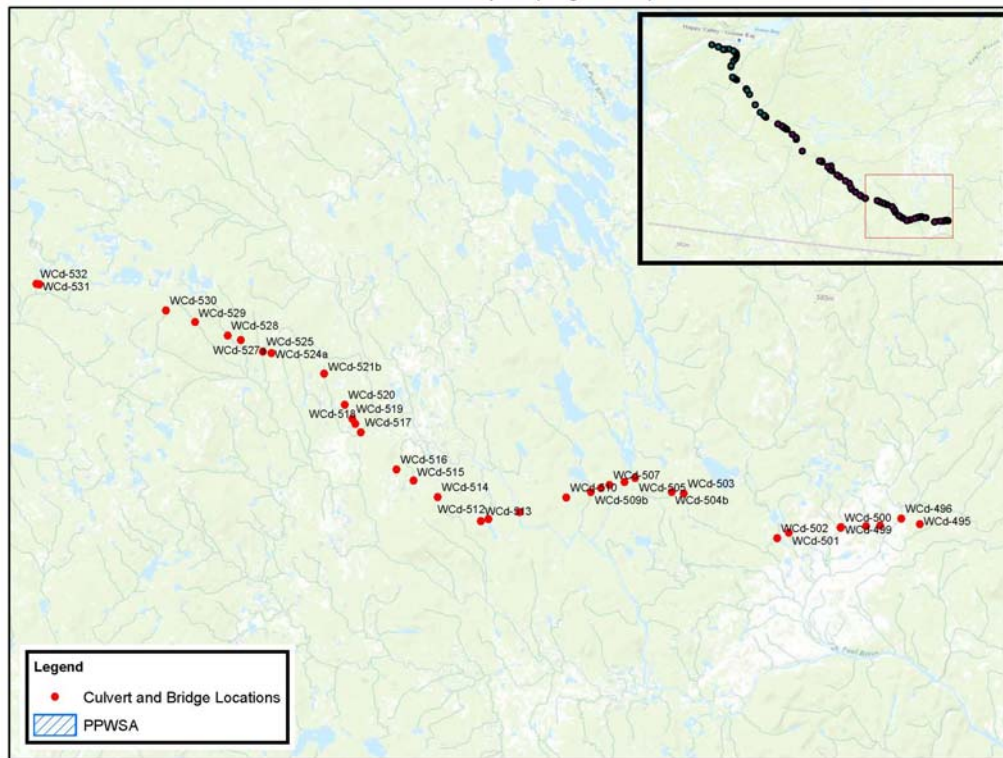
Department of Municipal Affairs and Environment  
Water Resources Management Division  
PO Box 8700  
St. John's NL A1B 4J6



**APPENDIX D**  
**Location Map for Permit**

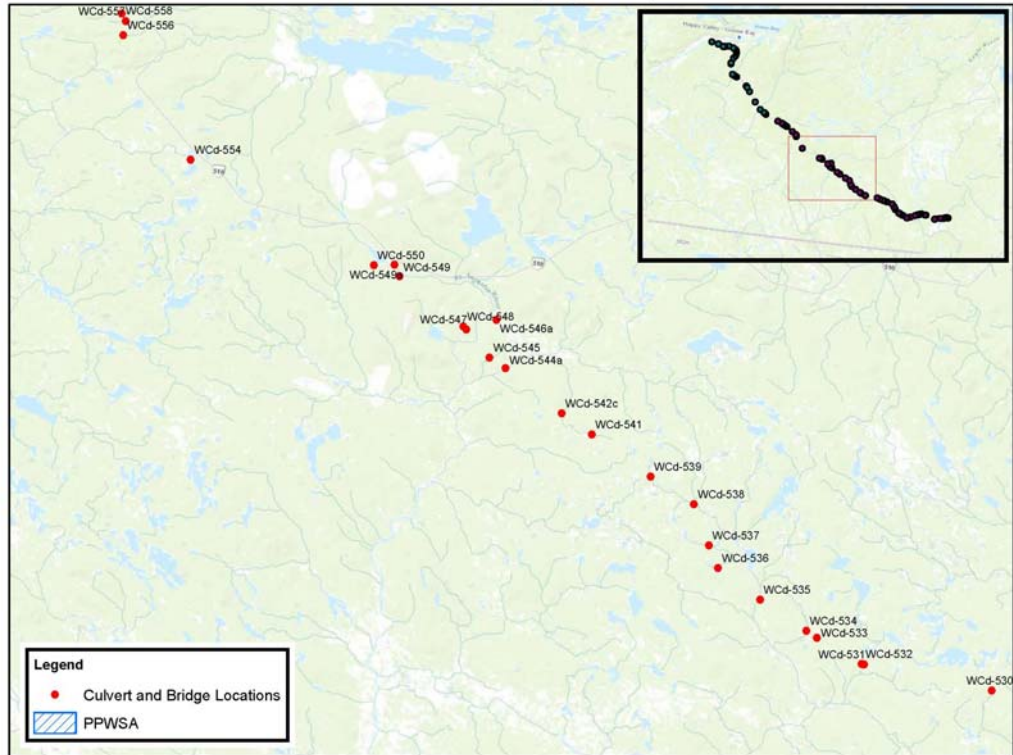
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Location Map 1 (Segment 1)



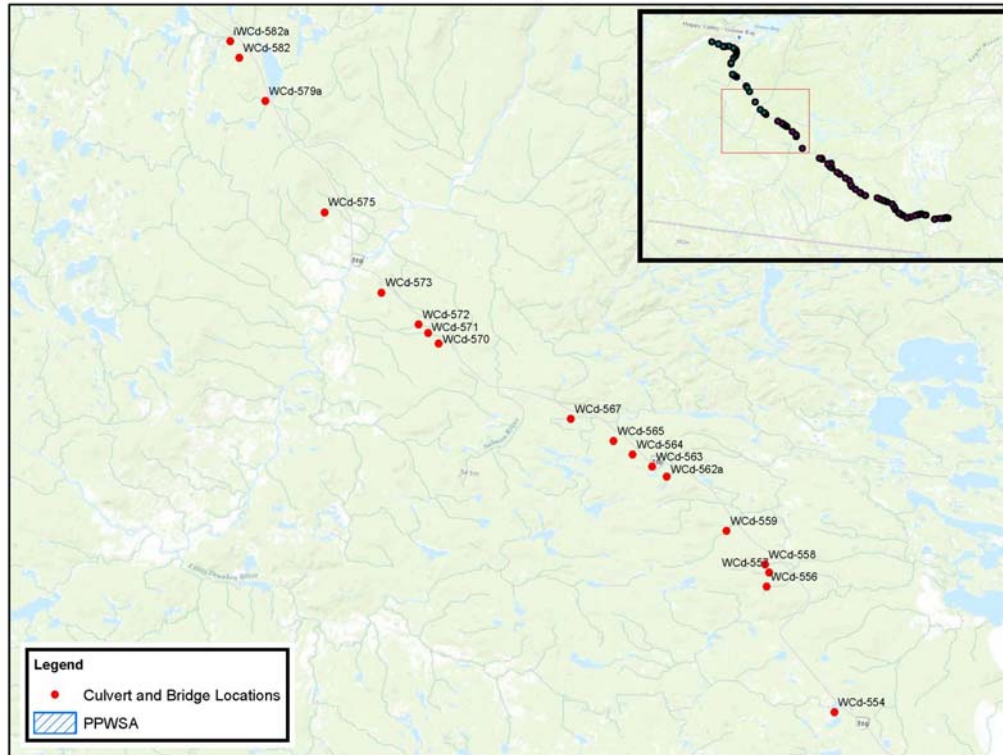
**Second Attached Image File**

Location Map 2 (Segment 1)

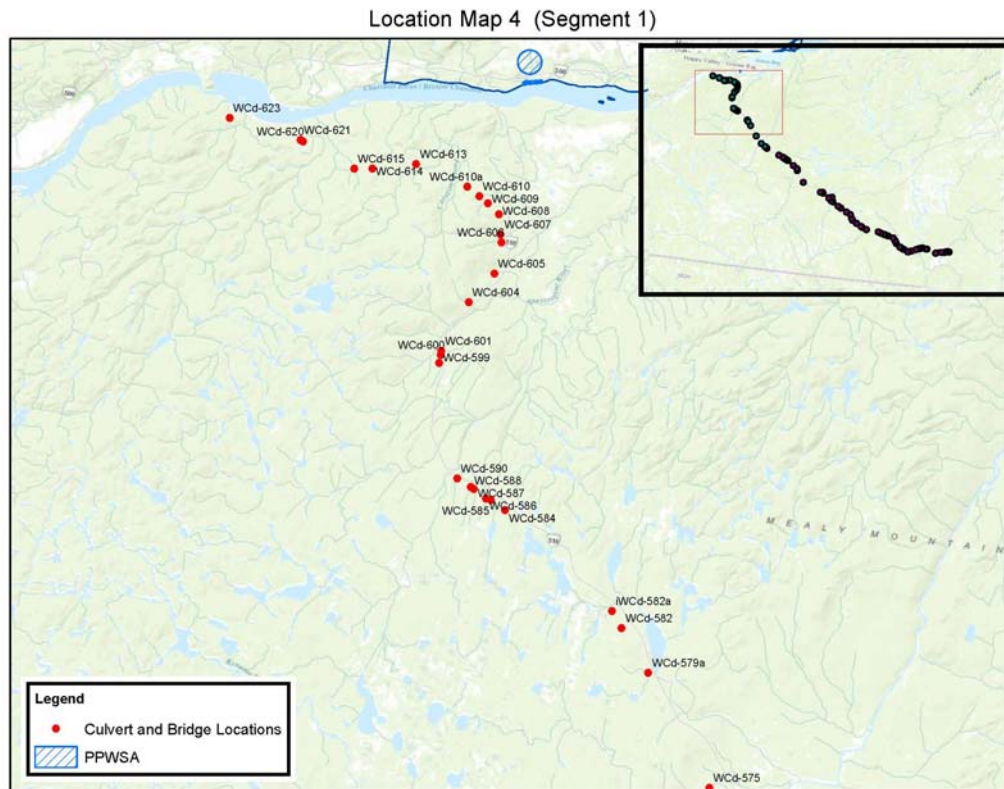


**Third Attached Image File**

Location Map 3 (Segment 1)



**Fourth Attached Image File**



## Appendix E - Hydraulic design criteria for culverts

To safely convey peak flows the culvert installations must be designed according to the following hydraulic criteria: Segment no - 1 Labrador (between 21U 435284mE, 5788973mN and 20U 650260mE, 5900456mN)

Crossing name/no	Northing	Easting	UTM Zone	Design Return Period (years)	Design Flow (m <sup>3</sup> /sec)	Minimum size (mm)	Number of pipes	Length (m)	PPWSA
WCd-495	5788973	435284	21	1:05	1.4538	1-1000 & 1-450	2	9	No
WCd-498	5788509	431555	21	1:05	1.7222	1-1000 & 1-800	2	9	No
WCd-499	5788298	429827	21	1:10	2.6804	2-1000	2	9	No
WCd-500	5788278	429798	21	1:05	3.3599	1-1200 & 1-1000	2	9	No
WCd-501	5787620	426214	21	1:05	0.8821	1-1000	1	9	No
WCd-507	5789881	413502	21	1:05	2.2054	2-1000	2	9	No
WCd-508	5789634	412932	21	1:05	0.8999	1-1000	1	9	No
WCd-510	5788759	410582	21	1:05	1.2631	1-1000	1	9	No
WCd-514	5788047	401631	21	1:05	0.6519	1-800	1	9	No
WCd-515	5789074	399848	21	1:05	3.1090	1-1200 & 1-800	2	9	No
WCd-516	5789742	398610	21	1:05	1.2795	1-1000	1	9	No
WCd-518	5792695	395500	21	1:05	1.6153	1-1000 & 1-600	2	9	No
WCd-519	5793025	395260	21	1:20	0.0374	1-450	1	9	No
WCd-520	5793934	394626	21	1:10	0.2831	1-600	1	9	No
WCd-521b	5795983	393050	21	1:20	0.8321	1-1000	1	9	No
WCd-524a	5797117	389239	21	1:05	0.6493	1-800	1	9	No
WCd-525	5797167	388645	21	1:20	1.3602	1-1000	1	9	No
WCd-527a	5797851	387039	21	1:05	4.4794	2-1200	2	9	No
WCd-529	5798831	383763	21	1:05	2.4421	2-1000	2	9	No
WCd-530	5799475	381681	21	1:05	0.7204	1-800	1	9	No
WCd-532	5800571	372538	21	1:05	1.1420	1-1000	1	9	No
WCd-533	5802128	369299	21	1:05	3.5041	1-1200 & 1-1000	2	9	No
WCd-536	5806388	362063	21	1:05	1.5727	1-1000 & 1-800	2	9	No
WCd-537	5807886	361295	21	1:05	3.0381	1-1200 & 1-800	2	9	No
WCd-539	5812312	356868	21	1:05	1.3153	1-1000	1	9	No
WCd-545	5819613	345048	21	1:05	2.4476	2-1000	2	9	No
WCd-547	5821420	343295	21	1:05	2.0266	1-1000 & 1-800	2	9	No
WCd-548	5821625	343081	21	1:05	2.1757	2-1000	2	9	No
WCd-549	5824708	338368	21	1:05	2.3560	2-1000	2	9	No
WCd-550	5825342	336521	21	1:05	2.1216	1-1000 & 1-800	2	9	No
WCd-556	5839763	317903	21	1:05	2.2600	2-1000	2	12	No
WCd-557	5840753	317981	21	1:05	2.2300	2-1000	2	12	No
WCd-562a	5846725	310401	21	1:05	1.7700	2-1000	2	8	No

To safely convey peak flows the culvert installations must be designed according to the following hydraulic criteria: Segment no - 1 Labrador (between 21U 435284mE, 5788973mN and 20U 650260mE, 5900456mN)

Crossing name/no	Northing	Easting	UTM Zone	Design Return Period (years)	Design Flow (m <sup>3</sup> /sec)	Minimum size (mm)	Number of pipes	Length (m)	PPWSA
WCd-564	5848067	307941	21	1:05	1.7400	2-1000	2	9	No
WCd-565	5848861	306550	21	1:05	1.1300	1-1000	1	7	No
WCd-569	5851624	297884	20	1:05	0.4300	1-600 & 1-450	2	10	No
WCd-570	5854219	698461	20	1:05	1.8800	1-1000 & 1-600	2	11	No
WCd-572	5855300	696883	20	1:05	1.4000	1-1000	1	12	No
WCd-573	5857031	693990	20	1:05	1.5300	1-1000 & 1-450	2	9	No
WCd-579a	5868689	683911	20	1:05	3.6000	1-1200 & 1-1000	2	12	No
iWCd-582a	5872364	680841	20	1:05	Unknown	1-600	1	12	No
WCd-582	5871341	681671	20	1:05	1.2700	1-1000	1	8	No
WCd-584	5877799	672696	20	1:05	0.2100	1-600	1	12	No
WCd-599	5886719	666744	20	1:05	2.0100	1-1000 & 1-800	2	8	No
WCd-600	5887258	666738	20	1:05	0.8800	1-800 & 1-450	2	9	No
WCd-601	5887531	666748	20	1:05	1.6300	1-1000 & 1-600	2	12	No
WCd-604	5891051	668002	20	1:05	5.0400	3-1000	3	8	No
WCd-605	5893194	669361	20	1:05	3.9100	3-1000	3	8	No
WCd-606	5895340	669498	20	1:05	5.0800	3-1000	3	9	No
WCd-607	5895838	669345	20	1:05	3.4400	2-1000 & 1-600	3	9	No
WCd-608	5897141	668999	20	1:05	2.9100	2-1000	2	12	No
WCd-609	5897753	668173	20	1:05	2.5800	2-1000	2	12	No
WCd-610	5898114	667509	20	1:05	1.8200	1-1000 & 1-600	2	12	No
WCd-610a	5898618	666616	20	1:05	1.0300	1-1000	1	9	No
WCd-613	5899507	663015	20	1:05	1.2000	1-1000	1	12	No
WCd-614	5898739	660182	20	1:05	2.2700	2-1000	2	8	No
WCd-615	5898519	658991	20	1:05	1.8700	1-1000 & 1-800	2	12	No
WCd-620	5899738	655341	20	1:05	Unknown	1-600	1	9	No
WCd-621	5899808	655144	20	1:05	1.7900	1-1000 & 1-800	2	12	No
WCd-623	5900456	650260	20	1:05	Unknown	1-600	1	12	No

## Appendix F - Hydraulic design criteria for bridges

The bridge(s) must have the following minimum dimensions: Segment no - 1 Labrador (between 21U 435284mE, 5788973mN and 20U 650260mE, 5900456mN)

Crossing name/no	Northing	Easting	UTM Zone	Design Return Period (years)	Design Flow (m <sup>3</sup> /sec)	Span (m)	Waterway Opening (m <sup>2</sup> )	Height above streambed (m)	Freeboard (m)	PPWSA
WCd-496	5789229	433974	21	1:20	65.39	27.44	86.85	4.75	4.00	No
WCd-497	5788640	432548	21	1:20	2.55	6.10	6.24	1.00	0.75	No
WCd-502	5787162	425470	21	1:20	11.29	18.29	21.52	2.00	1.50	No
WCd-503	5789720	418718	21	1:20	4.16	9.15	12.80	2.00	1.50	No
WCd-504b	5789781	417843	21	1:20	4.87	9.15	10.98	2.50	2.00	No
WCd-505	5790516	415247	21	1:20	7.42	15.24	49.01	2.50	2.00	No
WCd-506b	5790198	414511	21	1:20	Unknown until installation	48.78	121.95	6.50	4.00	No
WCd-509b	5789299	412251	21	1:20	9.79	9.15	17.55	2.00	1.50	No
WCd-511	5787499	407412	21	1:20	91.28	48.78	426.99	4.75	4.00	No
WCd-512	5786816	405288	21	1:20	6.49	12.20	18.50	1.00	2.00	No
WCd-513	5786635	404787	21	1:20	3.70	9.15	2.29	1.25	1.00	No
WCd-517	5792106	395923	21	1:20	8.80	15.24	38.11	2.30	1.80	No
WCd-528	5798091	386110	21	1:20	6.69	6.10	8.20	2.30	1.80	No
WCd-531	5800563	372727	21	1:20	24.20	18.29	26.69	2.50	2.00	No
WCd-534	5802567	368520	21	1:20	4.92	6.10	7.57	2.50	2.00	No
WCd-535	5804445	365141	21	1:20	53.19	30.49	60.85	3.00	2.30	No
WCd-538	5810647	360032	21	1:20	7.81	9.15	8.56	2.20	1.70	No
WCd-541	5814882	352559	21	1:20	6.46	6.10	5.76	2.50	2.00	No
WCd-542c	5816167	350355	21	1:20	6.11	6.10	9.42	2.50	1.50	No
WCd-544a	5818971	346228	21	1:20	43.94	24.39	77.72	3.25	2.50	No
WCd-546a	5822236	345306	21	1:20	5.06	6.10	6.31	2.10	1.60	No
WCd-549a	5825476	337968	21	1:20	24.34	9.15	7.40	2.75	2.00	No
WCd-554	5831554	323259	21	1:05	2.19	6.10	3.57	2.00	1.50	No
WCd-558	5841262	317660	21	1:05	2.34	4.88	2.44	2.00	1.50	No
WCd-559	5843372	314816	21	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-563	5847336	309346	21	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No

The bridge(s) must have the following minimum dimensions: Segment no - 1 Labrador (between 21U 435284mE, 5788973mN and 20U 650260mE, 5900456mN)

Crossing name/no	Northing	Easting	UTM Zone	Design Return Period (years)	Design Flow (m <sup>3</sup> /sec)	Span (m)	Waterway Opening (m <sup>2</sup> )	Height above streambed (m)	Freeboard (m)	PPWSA
WCd-567	5850155	303492	21	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-571	5854814	697622	20	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-575	5861832	689215	20	1:05	5.22	6.10	2.60	1.50	1.00	No
WCd-585	5878273	671651	20	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-586	5878343	671305	20	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-587	5878815	670422	20	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-588	5878914	670186	20	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No
WCd-590	5879349	669196	20	1:05	Unknown until installation	4.88	Unknown until installation	Unknown until installation	Unknown until installation	No