

Pictou/Antigonish, NS - Climate Change and Sea-Level Rise Scenario Data

Parameter		Historical 1980s	Projected 2020s	Projected 2050s	Projected 2080s
Temperature (°C)	Annual	5.7	6.8	8.0	9.2
	Winter	-5.4	-4.3	-3.0	-1.7
	Spring	3.5	4.4	5.5	6.6
	Summer	16.8	17.8	19.0	20.1
	Autumn	8.1	9.2	10.3	11.5
Precipitation (mm)	Annual	1383.3	1415.8	1423.6	1462.5
	Winter	363.6	377.8	385.1	404.0
	Spring	324.3	334.3	339.5	352.0
	Summer	291.5	296.6	294.1	294.7
	Autumn	403.9	407.1	404.4	411.3
Heating Degree Days		4556.0	4226.0	3869.7	3525.0
Cooling Degree Days		104.4	153.1	223.0	307.7
Hot Days (Tmax > 30)		3.1	6.3	11.6	18.6
Very Hot Days (Tmax > 35)		0.0	0.1	0.5	1.1
Cold Days (Tmax < -10)		6.9	5.9	4.5	3.2
Very Cold Days (Tmax < -20)		0.0	0.0	0.0	0.0
Growing Degree Days > 5		1652.7	1852.4	2094.2	2357.5
Growing Degree Days > 10		824.9	966.8	1141.0	1331.1
Growing Season Length (days)		161.0	173.1	190.9	208.6
Corn Heat Units (CHU)		2342.1	2632.3	2972.6	3333.5
Corn Season Length (days)		131.6	143.7	155.6	169.5
Freeze Free Season (days)		188.7	214.1	235.6	253.4
Days With Rain		108.2	120.7	124.2	127.1
Days With Snow		35.0	51.7	45.2	38.8
Freeze-Thaw Cycles - Annual		105.7	99.1	87.3	77.4
Winter		37.3	37.6	40.1	40.8
Spring		41.5	39.6	32.1	25.5
Summer		1.1	0.8	0.3	0.1
Autumn		25.8	21.1	14.8	11.0
Water Surplus (mm)		968.3	886.8	877.4	881.5
Water Deficit (mm)		28.0	31.4	39.0	46.6
Δ Intensity Short Period Rainfall (%)		0	5	9	16

Sea Level Rise

Extreme Total Sea Level (metres CD) – Pictou/Antigonish						
Return Period	Residual	Level 2000	Level 2025	Level 2055	Level 2085	Level 2100
Total Sea Level Rise (m)			0.15 ± 0.03	0.42 ± 0.15	0.82 ± 0.36	1.05 ± 0.48
Extreme TSL - 10 Yr Ret Period	1.12 ± 0.10	3.17 ± 0.10	3.32 ± 0.13	3.59 ± 0.25	3.99 ± 0.46	4.22 ± 0.58
Extreme TSL - 25 Yr Ret Period	1.27 ± 0.10	3.32 ± 0.10	3.47 ± 0.13	3.74 ± 0.25	4.14 ± 0.46	4.37 ± 0.58
Extreme TSL - 50 Yr Ret Period	1.38 ± 0.10	3.43 ± 0.10	3.58 ± 0.13	3.85 ± 0.25	4.25 ± 0.46	4.48 ± 0.58
Extreme TSL - 100 Yr Ret Period	1.49 ± 0.10	3.54 ± 0.10	3.69 ± 0.13	3.96 ± 0.25	4.36 ± 0.46	4.59 ± 0.58

Chart Datum (CD) – CGVD28 (lidar) relationship: 0.92

Source: W. Richards Climate Consulting, August 2011