

Guysborough, NS - Climate Change and Sea-Level Rise Scenario Data

Parameter		Historical 1980s	Projected 2020s	Projected 2050s	Projected 2080s
Temperature (°C)	Annual	5.8	6.7	7.8	8.9
	Winter	-3.2	-2.2	-1.0	0.3
	Spring	2.4	3.4	4.4	5.4
	Summer	14.1	15.1	16.2	17.2
	Autumn	9.6	10.6	11.7	12.9
Precipitation (mm)	Annual	1425.8	1452.8	1461.3	1497.4
	Winter	352.6	363.9	371.7	387.4
	Spring	359.7	369.5	375.9	389.5
	Summer	307.5	312.6	308.1	308.6
	Autumn	405.9	405.9	403.3	408.6
Heating Degree Days		4460.3	4134.9	3771.4	3425.2
Cooling Degree Days		14.0	33.5	72.4	132.5
Hot Days (Tmax > 30)		0.0	0.1	0.1	0.2
Very Hot Days (Tmax > 35)		0.0	0.0	0.0	0.0
Cold Days (Tmax < -10)		3.1	2.9	1.7	1.1
Very Cold Days (Tmax < -20)		0.0	0.0	0.0	0.0
Growing Degree Days > 5		1378.4	1563.2	1794.8	2051.4
Growing Degree Days > 10		582.3	706.4	865.4	1041.4
Growing Season Length (days)		192.2	196.1	214.3	231.4
Corn Heat Units (CHU)		1892.7	2234.1	2618.2	2992.7
Corn Season Length (days)		141.2	147.8	161.5	172.8
Freeze Free Season (days)		224.3	244.5	264.2	280.2
Days With Rain		137.1	143.9	147.4	149.8
Days With Snow		24.5	42.6	34.2	28.4
Freeze-Thaw Cycles - Annual		82.5	78.6	69.7	60.6
Winter		40.6	40.3	41.2	40.5
Spring		33.2	30.6	24.1	17.0
Summer		0.0	0.0	0.0	0.0
Autumn		8.7	7.8	4.5	3.1
Water Surplus (mm)		1148.3	971.0	964.0	942.9
Water Deficit (mm)		13.8	15.9	20.2	24.4
Δ Intensity Short Period Rainfall (%)		0	5	9	16

Sea Level Rise

Extreme Total Sea Level (metres CD) – Canso Harbour (Guysborough)						
Return Period	Residual	Level 2000	Level 2025	Level 2055	Level 2085	Level 2100
Total Sea Level Rise (m)			0.16 ± 0.03	0.45 ± 0.15	0.86 ± 0.36	1.10 ± 0.48
Extreme TSL - 10 Yr Ret Period	0.71 ± 0.20	2.56 ± 0.20	2.72 ± 0.23	3.01 ± 0.35	3.42 ± 0.56	3.66 ± 0.68
Extreme TSL - 25 Yr Ret Period	0.81 ± 0.20	2.66 ± 0.20	2.82 ± 0.23	3.11 ± 0.35	3.52 ± 0.56	3.76 ± 0.68
Extreme TSL - 50 Yr Ret Period	0.88 ± 0.20	2.73 ± 0.20	2.89 ± 0.23	3.18 ± 0.35	3.59 ± 0.56	3.83 ± 0.68
Extreme TSL - 100 Yr Ret Period	0.95 ± 0.20	2.80 ± 0.20	2.96 ± 0.23	3.25 ± 0.35	3.66 ± 0.56	3.90 ± 0.68

Source: W. Richards Climate Consulting, August 2011