

## Cape Breton West, NS - Climate Change and Sea-Level Rise Scenario Data

Parameter		Historical 1980s	Projected 2020s	Projected 2050s	Projected 2080s
Temperature (°C)	Annual	6.2	7.2	8.3	9.6
	Winter	-4.2	-3.0	-1.7	-0.4
	Spring	3.3	4.2	5.3	6.4
	Summer	16.8	17.8	18.9	20.0
	Autumn	8.8	9.8	10.9	12.1
Precipitation (mm)	Annual	1388.7	1419.8	1441.2	1480.6
	Winter	417.6	432.1	446.8	465.0
	Spring	275.4	285.2	292.0	305.7
	Summer	287.3	291.0	288.8	288.0
	Autumn	408.5	411.0	413.0	422.1
Heating Degree Days		4389.5	4073.9	3724.5	3376.0
Cooling Degree Days		107.5	153.1	220.1	306.4
Hot Days (Tmax > 30)		0.9	2.0	4.8	9.2
Very Hot Days (Tmax > 35)		0.0	0.0	0.0	0.1
Cold Days (Tmax < -10)		6.1	5.6	3.8	2.5
Very Cold Days (Tmax < -20)		0.0	0.0	0.0	0.0
Growing Degree Days > 5		1698.8	1890.0	2126.8	2394.0
Growing Degree Days > 10		846.3	984.1	1157.3	1353.3
Growing Season Length (days)		193.1	199.3	219.4	231.3
Corn Heat Units (CHU)		2277.5	2538.9	2852.0	3180.0
Corn Season Length (days)		162.5	170.9	183.6	192.5
Freeze Free Season (days)		190.6	210.4	227.5	242.2
Days With Rain		142.7	161.0	166.5	172.1
Days With Snow		62.2	67.9	59.8	51.8
Freeze-Thaw Cycles - Annual		83.7	78.2	70.4	63.2
Winter		36.2	35.5	38.2	38.0
Spring		35.1	32.7	27.1	22.1
Summer		0.1	0.0	0.0	0.0
Autumn		12.3	10.0	5.2	3.1
Water Surplus (mm)		880.0	887.4	861.5	850.6
Water Deficit (mm)		30.0	33.6	40.8	48.7
Δ Intensity Short Period Rainfall (%)		0	5	9	16

## Sea Level Rise

Extreme Total Sea Level (metres CD) – Cheticamp (Cape Breton West)						
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	0.96 ± 0.20	2.33 ± 0.20	2.49 ± 0.23	2.78 ± 0.35	3.19 ± 0.56	3.43 ± 0.68
Extreme TSL - 25 Yr Ret Period	1.10 ± 0.20	2.47 ± 0.20	2.63 ± 0.23	2.92 ± 0.35	3.33 ± 0.56	3.57 ± 0.68
Extreme TSL - 50 Yr Ret Period	1.20 ± 0.20	2.57 ± 0.20	2.73 ± 0.23	3.02 ± 0.35	3.43 ± 0.56	3.67 ± 0.68
Extreme TSL - 100 Yr Ret Period	1.31 ± 0.20	2.68 ± 0.20	2.84 ± 0.23	3.13 ± 0.35	3.54 ± 0.56	3.78 ± 0.68

Source: W. Richards Climate Consulting, August 2011