

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

Parameter		Historical 1980s	Projected 2020s	Projected 2050s	Projected 2080s
Temperature (°C)	Annual	5.5	6.5	7.6	8.7
	Winter	-4.8	-3.8	-2.6	-1.4
	Spring	2.4	3.3	4.3	5.4
	Summer	16.2	17.2	18.2	19.3
	Autumn	8.2	9.2	10.3	11.5
Precipitation (mm)	Annual	1502.2	1530.6	1539.7	1577.6
	Winter	447.3	461.6	471.5	491.4
	Spring	372.2	382.4	389.0	403.1
	Summer	272.5	277.0	273.0	273.4
	Autumn	410.2	410.2	407.6	413.0
Heating Degree Days		4615.1	4309.0	3965.3	3633.0
Cooling Degree Days		83.5	122.2	180.9	255.0
Hot Days (Tmax > 30)		2.4	4.1	7.6	12.8
Very Hot Days (Tmax > 35)		0.0	0.0	0.2	0.5
Cold Days (Tmax < -10)		5.3	4.3	2.9	2.0
Very Cold Days (Tmax < -20)		0.0	0.0	0.0	0.0
Growing Degree Days > 5		1535.9	1714.4	1936.4	2179.1
Growing Degree Days > 10		745.7	872.1	1030.6	1204.4
Growing Season Length (days)		173.7	185.7	199.5	216.6
Corn Heat Units (CHU)		2262.5	2506.0	2839.9	3203.4
Corn Season Length (days)		144.2	153.6	165.4	181.9
Freeze Free Season (days)		196.1	213.5	235.8	254.1
Days With Rain		143.2	151.3	156.7	163.5
Days With Snow		70.4	72.3	61.7	53.2
Freeze-Thaw Cycles - Annual		103.9	98.4	87.1	77.2
Winter		37.4	39.0	42.1	43.1
Spring		45.6	42.9	34.1	27.5
Summer		0.3	0.1	0.0	0.0
Autumn		20.5	16.5	10.9	6.7
Water Surplus (mm)		1099.6	1058.8	1046.9	1060.0
Water Deficit (mm)		34.0	37.9	46.7	55.1
Δ Intensity Short Period Rainfall (%)		0	5	9	16

Sea Level Rise

Extreme Total Sea Level (metres CD) – Sydney, NS						
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	0.63 ± 0.10	1.95 ± 0.10	2.11 ± 0.13	2.40 ± 0.25	2.81 ± 0.46	3.05 ± 0.58
Extreme TSL - 25 Yr Ret Period	0.72 ± 0.10	2.04 ± 0.10	2.20 ± 0.13	2.49 ± 0.25	2.90 ± 0.46	3.14 ± 0.58
Extreme TSL - 50 Yr Ret Period	0.78 ± 0.10	2.10 ± 0.10	2.26 ± 0.13	2.55 ± 0.25	2.96 ± 0.46	3.20 ± 0.58
Extreme TSL - 100 Yr Ret Period	0.85 ± 0.10	2.17 ± 0.10	2.33 ± 0.13	2.62 ± 0.25	3.03 ± 0.46	3.27 ± 0.58

Source: W. Richards Climate Consulting, August 2011