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

Parameter		Historical 1980s	Projected 2020s	Projected 2050s	Projected 2080s
Temperature (°C)	Annual	6.9	8.1	9.3	10.6
	Winter	-2.1	-0.8	0.7	2.1
	Spring	5.0	6.0	7.1	8.3
	Summer	15.7	16.7	17.9	19.1
	Autumn	9.3	10.4	11.5	12.8
Precipitation (mm)	Annual	1275.1	1310.1	1320.9	1360.1
	Winter	370.5	388.5	397.8	419.5
	Spring	310.9	321.2	325.8	338.6
	Summer	255.9	260.2	259.4	259.7
	Autumn	337.8	341.9	341.5	349.1
Heating Degree Days		4038.7	3663.0	3267.4	2892.9
Cooling Degree Days		21.0	49.8	106.0	189.4
Hot Days (Tmax > 30)		0.0	0.1	0.2	0.9
Very Hot Days (Tmax > 35)		0.0	0.0	0.0	0.0
Cold Days (Tmax < -10)		1.5	0.6	0.1	0.1
Very Cold Days (Tmax < -20)		0.0	0.0	0.0	0.0
Growing Degree Days > 5		1619.5	1858.6	2146.7	2466.8
Growing Degree Days > 10		707.2	869.6	1070.2	1294.2
Growing Season Length (days)		201.0	219.4	235.1	250.9
Corn Heat Units (CHU)		2329.3	2725.8	3144.8	3586.4
Corn Season Length (days)		153.9	169.7	183.6	196.4
Freeze Free Season (days)		234.6	255.9	276.5	294.4
Days With Rain		129.3	141.0	145.4	149.2
Days With Snow		50.3	50.3	41.8	34.3
Freeze-Thaw Cycles - Annual		88.7	78.9	65.5	53.5
Winter		45.7	45.3	41.9	38.3
Spring		29.0	23.2	17.1	11.6
Summer		0.0	0.0	0.0	0.0
Autumn		14.0	10.5	6.6	3.6
Water Surplus (mm)		846.9	770.9	739.0	718.6
Water Deficit (mm)		36.3	40.0	47.8	56.0
Δ Intensity Short Period Rainfall (%)		0	5	9	16

Sea Level Rise

Extreme Total Sea Level (metres CD) – Yarmouth						
Return Period	**Residual**	**Level 2000**	**Level 2025**	**Level 2055**	**Level 2085**	**Level 2100**
Total Sea Level Rise (m)			0.15 ± 0.03	0.43 ± 0.15	0.83 ± 0.36	1.06 ± 0.48
Extreme TSL - 10 Yr Ret Period	0.68 ± 0.10	5.84 ± 0.10	5.99 ± 0.13	6.27 ± 0.25	6.67 ± 0.46	6.90 ± 0.58
Extreme TSL - 25 Yr Ret Period	0.75 ± 0.10	5.91 ± 0.10	6.06 ± 0.13	6.34 ± 0.25	6.74 ± 0.46	6.97 ± 0.58
Extreme TSL - 50 Yr Ret Period	0.81 ± 0.10	5.96 ± 0.10	6.12 ± 0.13	6.40 ± 0.25	6.80 ± 0.46	7.03 ± 0.58
Extreme TSL - 100 Yr Ret Period	0.87 ± 0.10	6.02 ± 0.10	6.18 ± 0.13	6.46 ± 0.25	6.86 ± 0.46	7.09 ± 0.58

Chart Datum (CD) – CGVD28 (lidar) relationship: 2.31

Source: W. Richards Climate Consulting, August 2011