



La Salle Redboine

Medium Carbon Emissions (RCP4.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	3.0 °C	4.3 °C	4.8 °C	5.6 °C	5.5 °C	6.0 °C	6.4 °C
	Winter	-14.6 °C	-13.5 °C	-12.3 °C	-11.1 °C	-11.7 °C	-10.6 °C	-9.6 °C
	Spring	2.9 °C	3.9 °C	4.7 °C	5.6 °C	4.9 °C	5.6 °C	6.3 °C
	Summer	18.6 °C	19.4 °C	20.0 °C	20.6 °C	20.6 °C	21.1 °C	21.6 °C
	Fall	4.9 °C	6.0 °C	6.6 °C	7.2 °C	7.1 °C	7.6 °C	8.2 °C
Precipitation	Annual	506.0 mm	501.6 mm	536.3 mm	571.6 mm	508.7 mm	534.3 mm	571.8 mm
	Winter	66.8 mm	68.7 mm	74.1 mm	83.6 mm	69.3 mm	77.7 mm	85.4 mm
	Spring	113.7 mm	108.3 mm	123.8 mm	138.4 mm	110.5 mm	128.9 mm	144.9 mm
	Summer	218.9 mm	195.3 mm	220.5 mm	247.1 mm	195.0 mm	209.4 mm	226.8 mm
	Fall	106.5 mm	106.3 mm	118.0 mm	132.2 mm	105.4 mm	118.3 mm	131.0 mm
Days ≥ 30 °C	Annual	11.7 days	15.9 days	21.8 days	28.0 days	25.1 days	32.2 days	39.3 days
Days ≤ -30 °C	Annual	7.2 days	0.5 days	3.0 days	6.2 days	0.0 days	1.5 days	3.2 days
Frost-Free Period	Annual	128.4 days	126.9 days	142.1 days	156.7 days	138.7 days	150.6 days	164.7 days
Date of First Fall Frost		Sep 24	Sep 20	Sep 30	Oct 14	Sep 25	Oct 04	Oct 14
Date of Last Spring Frost		May 19	May 02	May 11	May 21	Apr 28	May 06	May 15
5 °C Degree Days	Annual	17406.6	17435.1	17450.6	17461.6	17456.7	17467.0	17477.6
10 °C Degree Days	Annual	999.6	1131.9	1216.3	1296.7	1306.9	1393.4	1476.6
Freeze-Thaw Cycles	Annual	61.0 cycles	45.9 cycles	56.5 cycles	66.8 cycles	51.1 cycles	58.6 cycles	66.2 cycles
Days Precip ≥ 10 mm	Annual	12.2 days	11.3 days	13.3 days	15.4 days	11.9 days	13.5 days	15.1 days
Days Precip ≥ 20 mm	Annual	3.9 days	2.9 days	4.1 days	5.1 days	3.2 days	4.1 days	5.3 days

High Carbon Emissions (RCP8.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	3.0 °C	4.4 °C	5.2 °C	5.8 °C	6.2 °C	7.4 °C	8.6 °C
	Winter	-14.7 °C	-12.9 °C	-11.7 °C	-10.5 °C	-10.7 °C	-9.0 °C	-7.2 °C
	Spring	2.9 °C	3.9 °C	4.6 °C	5.5 °C	5.3 °C	6.4 °C	7.6 °C
	Summer	18.5 °C	19.9 °C	20.4 °C	21.0 °C	21.6 °C	22.6 °C	23.6 °C
	Fall	4.9 °C	6.1 °C	7.0 °C	7.7 °C	8.1 °C	9.1 °C	10.1 °C
Precipitation	Annual	507.8 mm	497.6 mm	535.9 mm	572.6 mm	512.6 mm	547.6 mm	577.8 mm
	Winter	67.9 mm	65.4 mm	74.0 mm	84.2 mm	70.0 mm	81.4 mm	90.4 mm
	Spring	113.5 mm	108.2 mm	125.8 mm	141.6 mm	126.2 mm	143.7 mm	160.6 mm
	Summer	218.9 mm	201.1 mm	216.0 mm	232.9 mm	182.5 mm	204.4 mm	222.1 mm
	Fall	107.5 mm	105.8 mm	120.0 mm	130.2 mm	103.9 mm	118.0 mm	132.7 mm
Days ≥ 30 °C	Annual	11.4 days	18.7 days	25.2 days	34.5 days	35.4 days	46.9 days	58.9 days
Days ≤ -30 °C	Annual	7.5 days	0.2 days	2.4 days	5.3 days	0.0 days	0.5 days	1.4 days
Frost-Free Period	Annual	128.4 days	128.4 days	145.6 days	159.6 days	146.5 days	161.9 days	180.7 days
Date of First Fall Frost		Sep 24	Sep 23	Oct 03	Oct 16	Sep 30	Oct 10	Oct 22
Date of Last Spring Frost		May 19	May 02	May 11	May 20	Apr 22	May 01	May 10
5 °C Degree Days	Annual	17407.1	17433.2	17453.0	17473.7	17485.9	17506.3	17527.5
10 °C Degree Days	Annual	997.7	1203.5	1280.9	1368.9	1470.0	1623.3	1800.9
Freeze-Thaw Cycles	Annual	60.8 cycles	49.3 cycles	56.9 cycles	64.4 cycles	49.0 cycles	55.7 cycles	61.9 cycles
Days Precip ≥ 10 mm	Annual	12.3 days	11.7 days	13.4 days	14.8 days	12.6 days	14.1 days	15.7 days
Days Precip ≥ 20 mm	Annual	3.9 days	3.1 days	4.1 days	5.0 days	3.4 days	4.4 days	5.5 days