



Little Saskatchewan River

Medium Carbon Emissions (RCP4.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	1.3 °C	2.5 °C	3.1 °C	3.9 °C	3.8 °C	4.3 °C	4.7 °C
	Winter	-15.8 °C	-14.6 °C	-13.5 °C	-12.3 °C	-13.0 °C	-11.9 °C	-10.9 °C
	Spring	1.2 °C	2.2 °C	2.9 °C	3.9 °C	3.2 °C	3.9 °C	4.6 °C
	Summer	16.6 °C	17.5 °C	18.0 °C	18.6 °C	18.5 °C	19.2 °C	19.7 °C
	Fall	3.0 °C	4.1 °C	4.6 °C	5.3 °C	5.3 °C	5.7 °C	6.3 °C
Precipitation	Annual	490.6 mm	487.5 mm	518.3 mm	549.1 mm	495.0 mm	518.2 mm	547.3 mm
	Winter	67.3 mm	68.4 mm	73.9 mm	81.6 mm	69.9 mm	78.3 mm	86.9 mm
	Spring	106.3 mm	103.4 mm	117.1 mm	127.1 mm	103.9 mm	121.1 mm	136.4 mm
	Summer	211.2 mm	194.3 mm	213.1 mm	239.7 mm	186.9 mm	203.9 mm	220.0 mm
	Fall	105.9 mm	102.8 mm	114.2 mm	122.9 mm	104.3 mm	114.8 mm	127.4 mm
Days ≥ 30 °C	Annual	5.2 days	5.4 days	10.4 days	14.7 days	12.0 days	18.0 days	23.8 days
Days ≤ -30 °C	Annual	13.8 days	2.9 days	7.1 days	12.2 days	1.4 days	4.1 days	6.9 days
Frost-Free Period	Annual	112.9 days	115.3 days	128.2 days	143.3 days	123.7 days	135.9 days	148.3 days
Date of First Fall Frost		Sep 16	Sep 13	Sep 22	Oct 01	Sep 19	Sep 26	Oct 04
Date of Last Spring Frost		May 26	May 07	May 17	May 30	May 06	May 13	May 23
5 °C Degree Days	Annual	17393.3	17425.5	17440.8	17451.0	17445.3	17456.2	17465.6
10 °C Degree Days	Annual	750.1	866.4	933.6	1006.9	1017.2	1097.5	1163.9
Freeze-Thaw Cycles	Annual	69.6 cycles	57.5 cycles	66.6 cycles	76.7 cycles	59.4 cycles	69.8 cycles	79.5 cycles
Days Precip ≥ 10 mm	Annual	11.5 days	10.8 days	12.6 days	14.4 days	11.1 days	12.5 days	14.1 days
Days Precip ≥ 20 mm	Annual	3.3 days	2.2 days	3.3 days	4.6 days	2.6 days	3.5 days	4.4 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	1.3 °C	2.7 °C	3.4 °C	4.1 °C	4.5 °C	5.6 °C	6.8 °C
	Winter	-15.9 °C	-14.1 °C	-13.0 °C	-11.7 °C	-12.0 °C	-10.3 °C	-8.8 °C
	Spring	1.2 °C	2.2 °C	2.9 °C	3.7 °C	3.5 °C	4.6 °C	5.7 °C
	Summer	16.6 °C	18.0 °C	18.5 °C	19.1 °C	19.6 °C	20.6 °C	21.5 °C
	Fall	3.0 °C	4.1 °C	5.0 °C	5.8 °C	6.2 °C	7.2 °C	8.2 °C
Precipitation	Annual	489.6 mm	486.3 mm	517.1 mm	545.4 mm	495.8 mm	529.2 mm	566.3 mm
	Winter	68.0 mm	67.0 mm	74.5 mm	84.7 mm	70.0 mm	81.0 mm	89.8 mm
	Spring	105.7 mm	103.0 mm	119.5 mm	136.3 mm	117.3 mm	134.6 mm	153.6 mm
	Summer	210.1 mm	191.9 mm	208.3 mm	224.6 mm	178.3 mm	199.6 mm	219.4 mm
	Fall	105.7 mm	101.6 mm	114.8 mm	129.2 mm	97.6 mm	114.0 mm	129.1 mm
Days ≥ 30 °C	Annual	5.3 days	7.3 days	12.4 days	17.2 days	20.0 days	29.2 days	38.0 days
Days ≤ -30 °C	Annual	14.1 days	2.5 days	6.1 days	10.4 days	0.6 days	2.4 days	4.5 days
Frost-Free Period	Annual	113.2 days	116.3 days	130.1 days	146.3 days	130.6 days	144.7 days	158.5 days
Date of First Fall Frost		Sep 15	Sep 14	Sep 24	Oct 03	Sep 22	Oct 01	Oct 08
Date of Last Spring Frost		May 25	May 06	May 16	May 29	Apr 30	May 09	May 18
5 °C Degree Days	Annual	17393.8	17424.5	17443.3	17463.9	17473.5	17495.5	17517.3
10 °C Degree Days	Annual	749.1	928.0	993.3	1065.6	1165.5	1308.2	1474.8
Freeze-Thaw Cycles	Annual	69.4 cycles	56.3 cycles	66.4 cycles	75.0 cycles	56.2 cycles	65.5 cycles	74.4 cycles
Days Precip ≥ 10 mm	Annual	11.5 days	11.0 days	12.5 days	14.1 days	11.2 days	13.0 days	14.9 days
Days Precip ≥ 20 mm	Annual	3.3 days	2.3 days	3.3 days	4.5 days	2.6 days	3.7 days	4.8 days