



Assiniboine Hills

Medium Carbon Emissions (RCP4.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	2.8 °C	4.0 °C	4.5 °C	5.3 °C	5.2 °C	5.7 °C	6.2 °C
	Winter	-14.6 °C	-13.4 °C	-12.4 °C	-11.2 °C	-11.9 °C	-10.7 °C	-9.7 °C
	Spring	2.8 °C	3.8 °C	4.5 °C	5.5 °C	4.8 °C	5.5 °C	6.2 °C
	Summer	18.1 °C	19.0 °C	19.6 °C	20.2 °C	20.1 °C	20.7 °C	21.2 °C
	Fall	4.5 °C	5.5 °C	6.1 °C	6.8 °C	6.7 °C	7.2 °C	7.7 °C
Precipitation	Annual	480.4 mm	474.7 mm	505.9 mm	541.6 mm	477.0 mm	505.5 mm	537.6 mm
	Winter	66.1 mm	66.6 mm	71.6 mm	78.5 mm	66.5 mm	76.0 mm	84.2 mm
	Spring	108.7 mm	107.1 mm	119.5 mm	132.0 mm	103.6 mm	122.7 mm	141.1 mm
	Summer	209.0 mm	188.3 mm	209.8 mm	239.0 mm	181.7 mm	201.4 mm	221.6 mm
	Fall	96.7 mm	93.3 mm	105.1 mm	118.7 mm	92.8 mm	105.4 mm	119.8 mm
Days ≥ 30 °C	Annual	12.4 days	17.2 days	22.9 days	29.0 days	26.1 days	32.9 days	39.0 days
Days ≤ -30 °C	Annual	9.3 days	0.9 days	4.5 days	8.3 days	0.2 days	2.0 days	3.9 days
Frost-Free Period	Annual	121.4 days	123.0 days	135.4 days	150.2 days	131.1 days	142.1 days	155.2 days
Date of First Fall Frost		Sep 19	Sep 15	Sep 25	Oct 06	Sep 20	Sep 28	Oct 07
Date of Last Spring Frost		May 21	May 05	May 13	May 24	May 01	May 09	May 19
5 °C Degree Days	Annual	17422.2	17448.7	17465.3	17476.5	17471.3	17482.3	17492.3
10 °C Degree Days	Annual	948.6	1081.6	1163.2	1238.0	1251.9	1339.3	1416.5
Freeze-Thaw Cycles	Annual	66.4 cycles	52.3 cycles	63.1 cycles	74.6 cycles	56.6 cycles	65.9 cycles	75.4 cycles
Days Precip ≥ 10 mm	Annual	11.7 days	10.6 days	12.4 days	14.7 days	11.0 days	12.7 days	14.3 days
Days Precip ≥ 20 mm	Annual	3.6 days	2.5 days	3.7 days	4.8 days	3.0 days	3.9 days	5.0 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	2.7 °C	4.2 °C	4.9 °C	5.6 °C	6.0 °C	7.1 °C	8.3 °C
	Winter	-14.7 °C	-13.0 °C	-11.8 °C	-10.6 °C	-10.8 °C	-9.1 °C	-7.6 °C
	Spring	2.8 °C	3.8 °C	4.5 °C	5.3 °C	5.2 °C	6.3 °C	7.4 °C
	Summer	18.1 °C	19.5 °C	20.0 °C	20.6 °C	21.2 °C	22.2 °C	23.2 °C
	Fall	4.4 °C	5.6 °C	6.5 °C	7.2 °C	7.6 °C	8.7 °C	9.7 °C
Precipitation	Annual	479.8 mm	471.3 mm	506.4 mm	545.2 mm	488.1 mm	520.6 mm	552.9 mm
	Winter	66.5 mm	64.3 mm	72.4 mm	81.0 mm	67.8 mm	79.2 mm	88.2 mm
	Spring	108.4 mm	104.6 mm	121.7 mm	139.1 mm	121.9 mm	139.1 mm	157.6 mm
	Summer	207.9 mm	186.0 mm	204.6 mm	221.1 mm	175.4 mm	196.1 mm	217.3 mm
	Fall	96.8 mm	92.9 mm	107.7 mm	120.1 mm	90.2 mm	106.1 mm	119.9 mm
Days ≥ 30 °C	Annual	12.2 days	20.7 days	26.2 days	33.7 days	37.0 days	47.1 days	58.1 days
Days ≤ -30 °C	Annual	9.5 days	0.6 days	3.6 days	7.0 days	0.0 days	0.9 days	2.2 days
Frost-Free Period	Annual	121.4 days	123.5 days	138.0 days	152.5 days	140.2 days	153.0 days	167.6 days
Date of First Fall Frost		Sep 19	Sep 16	Sep 27	Oct 07	Sep 23	Oct 03	Oct 12
Date of Last Spring Frost		May 21	May 04	May 11	May 22	Apr 24	May 03	May 13
5 °C Degree Days	Annual	17422.7	17447.4	17467.8	17488.6	17501.8	17521.6	17541.1
10 °C Degree Days	Annual	947.3	1150.8	1224.4	1309.2	1411.4	1565.7	1741.3
Freeze-Thaw Cycles	Annual	66.3 cycles	55.6 cycles	63.4 cycles	71.8 cycles	54.5 cycles	61.8 cycles	70.1 cycles
Days Precip ≥ 10 mm	Annual	11.7 days	11.1 days	12.5 days	13.9 days	11.9 days	13.4 days	14.9 days
Days Precip ≥ 20 mm	Annual	3.5 days	2.8 days	3.7 days	4.7 days	3.2 days	4.2 days	5.2 days