



# Intermountain

## Medium Carbon Emissions (RCP4.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	1.6 °C	2.8 °C	<b>3.3 °C</b>	4.1 °C	4.0 °C	<b>4.5 °C</b>	4.9 °C
	Winter	-15.9 °C	-14.8 °C	<b>-13.6 °C</b>	-12.4 °C	-13.0 °C	<b>-12.0 °C</b>	-11.0 °C
	Spring	1.3 °C	2.2 °C	<b>3.0 °C</b>	3.9 °C	3.3 °C	<b>3.9 °C</b>	4.7 °C
	Summer	17.1 °C	17.9 °C	<b>18.5 °C</b>	18.9 °C	19.0 °C	<b>19.6 °C</b>	20.0 °C
	Fall	3.5 °C	4.5 °C	<b>5.1 °C</b>	5.7 °C	5.6 °C	<b>6.2 °C</b>	6.8 °C
Precipitation	Annual	471.2 mm	475.0 mm	<b>498.7 mm</b>	526.3 mm	475.6 mm	<b>499.0 mm</b>	525.1 mm
	Winter	65.4 mm	65.2 mm	<b>72.5 mm</b>	80.3 mm	68.5 mm	<b>76.2 mm</b>	83.7 mm
	Spring	95.1 mm	92.4 mm	<b>105.0 mm</b>	114.9 mm	90.9 mm	<b>108.8 mm</b>	125.9 mm
	Summer	204.1 mm	190.4 mm	<b>205.4 mm</b>	225.3 mm	182.3 mm	<b>197.5 mm</b>	215.9 mm
	Fall	106.8 mm	107.1 mm	<b>115.8 mm</b>	126.9 mm	106.1 mm	<b>116.5 mm</b>	130.1 mm
Days ≥ 30 °C	Annual	5.8 days	6.5 days	<b>11.2 days</b>	15.7 days	14.1 days	<b>19.8 days</b>	26.0 days
Days ≤ -30 °C	Annual	14.0 days	2.8 days	<b>7.0 days</b>	11.8 days	1.1 days	<b>4.5 days</b>	7.7 days
Frost-Free Period	Annual	116.2 days	116.6 days	<b>130.3 days</b>	148.1 days	126.1 days	<b>139.1 days</b>	150.9 days
Date of First Fall Frost		Sep 17	Sep 14	<b>Sep 24</b>	Oct 05	Sep 20	<b>Sep 28</b>	Oct 06
Date of Last Spring Frost		May 24	May 07	<b>May 17</b>	May 27	May 03	<b>May 12</b>	May 21
5 °C Degree Days	Annual	17234.0	17277.5	<b>17304.8</b>	17331.5	17309.9	<b>17334.1</b>	17352.9
10 °C Degree Days	Annual	798.0	912.7	<b>980.1</b>	1052.4	1069.4	<b>1144.3</b>	1210.7
Freeze-Thaw Cycles	Annual	67.0 cycles	53.7 cycles	<b>62.9 cycles</b>	71.6 cycles	56.3 cycles	<b>64.9 cycles</b>	74.4 cycles
Days Precip ≥ 10 mm	Annual	10.7 days	9.9 days	<b>12.0 days</b>	14.2 days	10.5 days	<b>12.0 days</b>	13.4 days
Days Precip ≥ 20 mm	Annual	2.8 days	1.9 days	<b>3.1 days</b>	4.5 days	2.4 days	<b>3.2 days</b>	4.0 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	1.5 °C	3.0 °C	<b>3.6 °C</b>	4.2 °C	4.7 °C	<b>5.8 °C</b>	7.0 °C
	Winter	-16.0 °C	-14.3 °C	<b>-13.1 °C</b>	-11.8 °C	-12.0 °C	<b>-10.4 °C</b>	-8.9 °C
	Spring	1.3 °C	2.2 °C	<b>3.0 °C</b>	3.8 °C	3.5 °C	<b>4.7 °C</b>	5.8 °C
	Summer	17.1 °C	18.3 °C	<b>18.9 °C</b>	19.5 °C	20.0 °C	<b>21.0 °C</b>	21.9 °C
	Fall	3.4 °C	4.5 °C	<b>5.5 °C</b>	6.3 °C	6.6 °C	<b>7.7 °C</b>	8.7 °C
Precipitation	Annual	470.4 mm	468.1 mm	<b>496.7 mm</b>	524.2 mm	479.5 mm	<b>509.4 mm</b>	536.8 mm
	Winter	66.4 mm	65.3 mm	<b>72.5 mm</b>	80.4 mm	67.4 mm	<b>79.0 mm</b>	89.0 mm
	Spring	94.0 mm	92.4 mm	<b>107.9 mm</b>	120.1 mm	100.8 mm	<b>119.1 mm</b>	137.4 mm
	Summer	203.7 mm	184.3 mm	<b>202.3 mm</b>	216.8 mm	173.8 mm	<b>195.8 mm</b>	214.5 mm
	Fall	106.4 mm	101.5 mm	<b>113.9 mm</b>	126.1 mm	99.5 mm	<b>115.6 mm</b>	129.6 mm
Days ≥ 30 °C	Annual	5.8 days	8.6 days	<b>13.4 days</b>	18.3 days	20.8 days	<b>30.6 days</b>	40.1 days
Days ≤ -30 °C	Annual	14.5 days	2.4 days	<b>6.0 days</b>	10.2 days	0.6 days	<b>2.7 days</b>	5.0 days
Frost-Free Period	Annual	116.5 days	119.3 days	<b>134.6 days</b>	153.9 days	132.0 days	<b>148.1 days</b>	165.3 days
Date of First Fall Frost		Sep 17	Sep 17	<b>Sep 27</b>	Oct 10	Sep 23	<b>Oct 04</b>	Oct 15
Date of Last Spring Frost		May 24	May 05	<b>May 15</b>	May 26	May 01	<b>May 09</b>	May 19
5 °C Degree Days	Annual	17235.8	17276.0	<b>17308.2</b>	17347.8	17353.2	<b>17381.6</b>	17408.9
10 °C Degree Days	Annual	798.0	973.9	<b>1040.4</b>	1117.6	1205.7	<b>1352.4</b>	1524.8
Freeze-Thaw Cycles	Annual	66.4 cycles	52.1 cycles	<b>62.5 cycles</b>	71.6 cycles	52.5 cycles	<b>61.0 cycles</b>	69.3 cycles
Days Precip ≥ 10 mm	Annual	10.7 days	10.3 days	<b>11.8 days</b>	13.3 days	10.6 days	<b>12.4 days</b>	14.2 days
Days Precip ≥ 20 mm	Annual	2.8 days	1.8 days	<b>3.0 days</b>	4.2 days	2.4 days	<b>3.3 days</b>	4.4 days