

1 Climate Report for Blaine County

2 Historical Climate Trends for Blaine County

Climate has changed over the last 50 years in Blaine County. In this analysis, we use [GridMet](#) meteorology to look at trends in climate in Blaine County since 1979. We do this analysis for reference et in the section below.

2.1 Historical Trends in Reference ET in Blaine County

Between 1979 and 2020, there has been no statistically significant change in reference et in Blaine County at an annual timescale. When looking at monthly data, there have been significant changes in reference et in April (-0.24 inches per decade). Below, annual trends in reference et are plotted for the GridMet period of record.

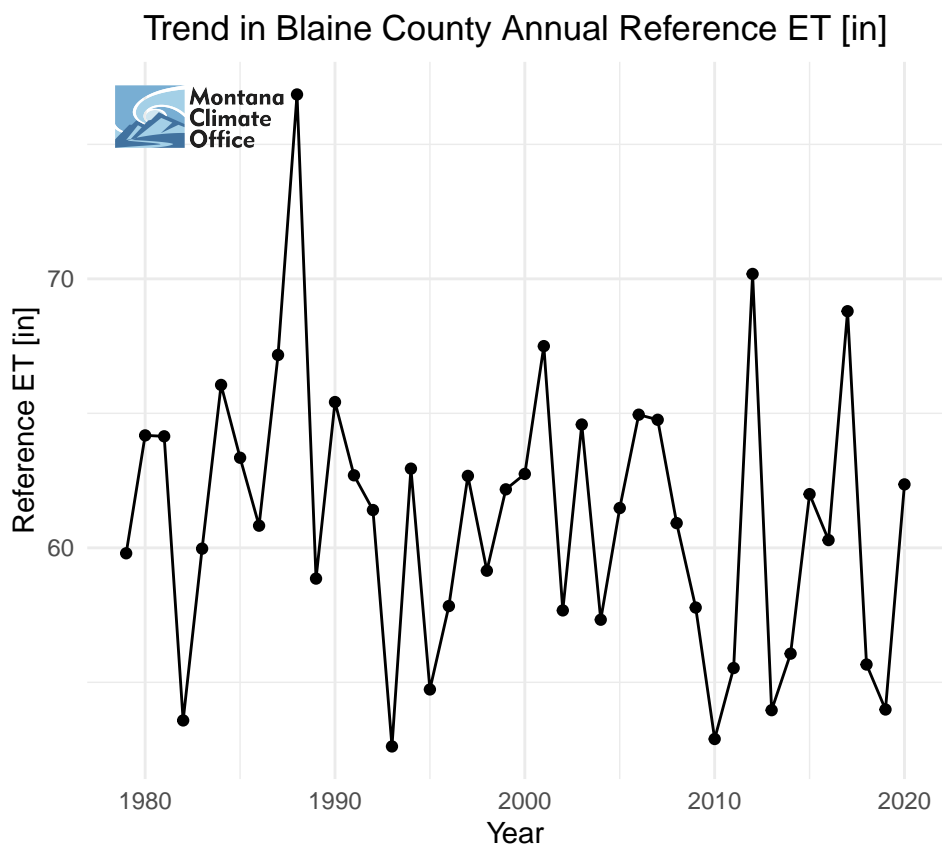


Figure 1: Historical Annual Reference Et Trends Across Blaine County

3 Future Climate Projection for Blaine County

3.1 Projected Annual Changes in Max. Temperature in Blaine County

Between 1950 and 2099, it is projected that under the middle of the road emissions scenario, max. temperature will increase at a rate of 0.27 degF per decade and under the high emissions emissions scenario, max. temperature will increase at a rate of 0.27 degF per decade. Below, a timeseries plot shows projected changes in max. temperature under these different emission scenarios.

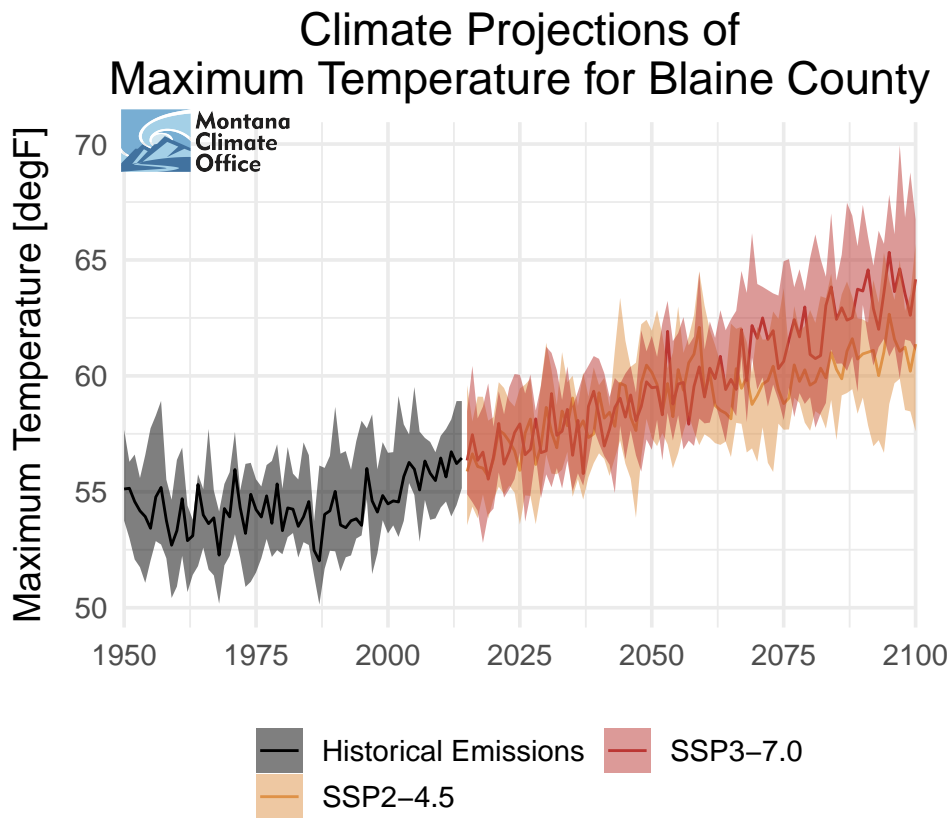


Figure 2: Projected Timeseries Of Annual Max. Temperature In Blaine County

Table 1: Projected Monthly Max. Temperature Changes In Blaine County

Month	SSP2-4.5	SSP3-7.0
Mid Century (2040-2069)		
Jan	2.69	2.94
Feb	3.01	2.92
Mar	2.35	2.71
Apr	2.46	2.32
May	2.42	2.31
Jun	3.34	3.48
Jul	4.14	4.24
Aug	4.50	5.71
Sep	4.20	5.25
Oct	3.43	4.07
Nov	4.02	4.52
Dec	3.03	3.59
End-of-Century (2070-2099)		
Jan	4.02	7.51
Feb	5.77	4.08
Mar	5.57	7.77
Apr	2.25	6.11
May	3.42	5.50
Jun	3.26	7.28
Jul	7.80	10.90
Aug	7.24	13.99
Sep	6.05	11.60
Oct	5.15	7.72
Nov	4.92	7.35
Dec	4.98	7.42

3.2 Projected Monthly Changes in Max. Temperature in Blaine County

In addition to changing at annual time scales, max. temperature is also projected to change at the monthly scale. By mid century (2040-2069), Aug is projected to see the largest increase in max. temperature (4.5 degF) under the ssp2-4.5 scenario relative to the 1991 - 2020 baseline and Aug is projected to see the largest increase in max. temperature (5.71 degF) under the ssp3-7.0 scenario relative to the 1991 - 2020 baseline. By end-of-century (2070-2099), Jul is projected to see the largest increase in max. temperature (7.8 degF) under the ssp2-4.5 scenario relative to the 1991 - 2020 baseline and Aug is projected to see the largest increase in max. temperature (13.99 degF) under the ssp3-7.0 scenario relative to the 1991 - 2020 baseline.. Below, a table and graph showing changes in max. temperature for the SSP2-4.5 and SSP3-7.0 scenarios is provided to give a monthly breakdown of projected changes.

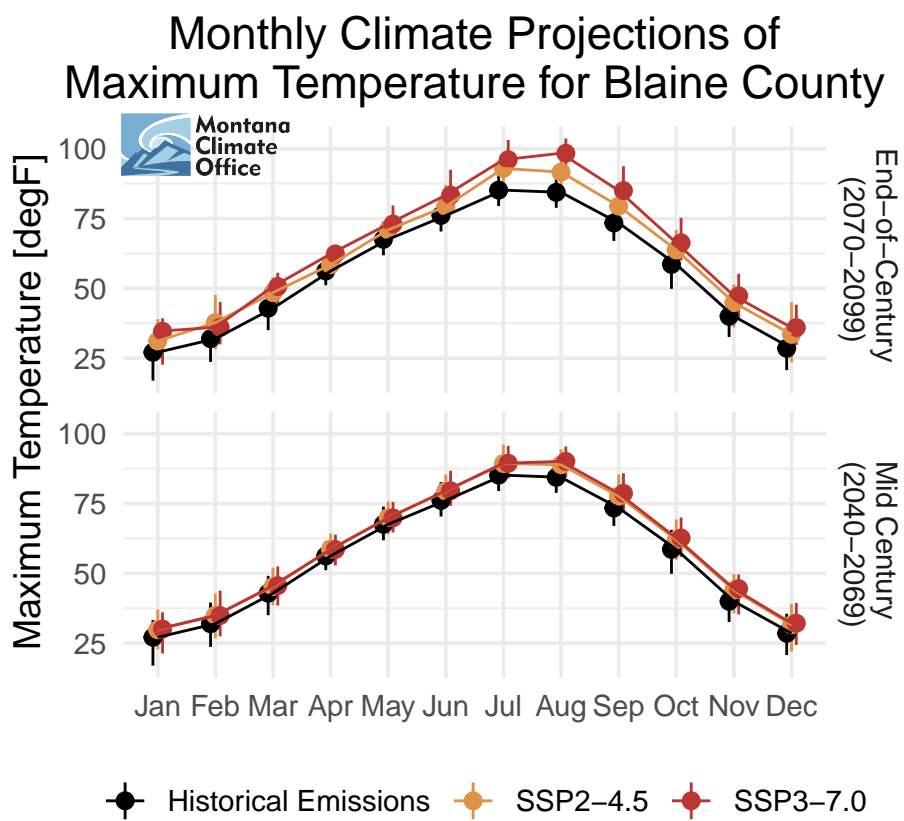


Figure 3: Projected Monthly Max. Temperature Changes In Blaine County