

# 1 Climate Report for Garfield County

## 2 Historical Climate Trends for Garfield County

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

### 2.1 Historical Trends in Reference ET in Garfield County

Between 1979 and 2020, there has been no statistically significant change in reference et in Garfield County at an annual timescale. When looking at monthly data, there has also been no significant trend in reference et across the same time period. Below, annual trends in reference et are plotted for the GridMet period of record.

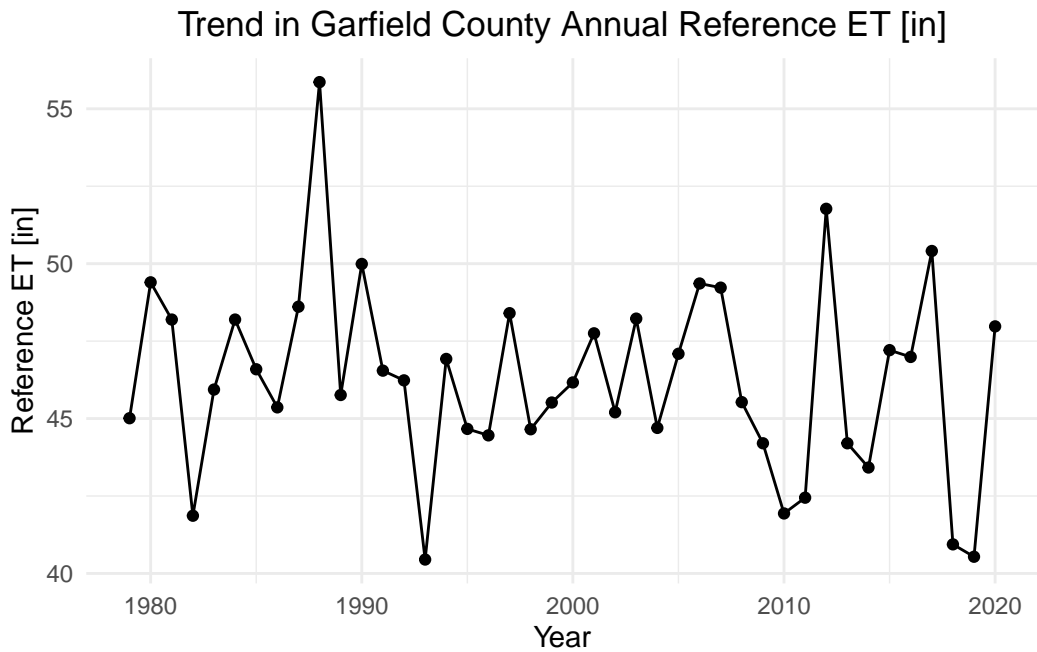


Figure 1: Historical Annual Reference Et Trends Across Garfield County

### 3 Future Climate Projection for Garfield County

#### 3.1 Projected Annual Changes in Max. Temperature in Garfield 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 0.33 degF per decade and under the high emissions emissions scenario, max. temperature will increase at a rate of 0.33 degF per decade. Below, a timeseries plot shows projected changes in max. temperature under these different emission scenarios.

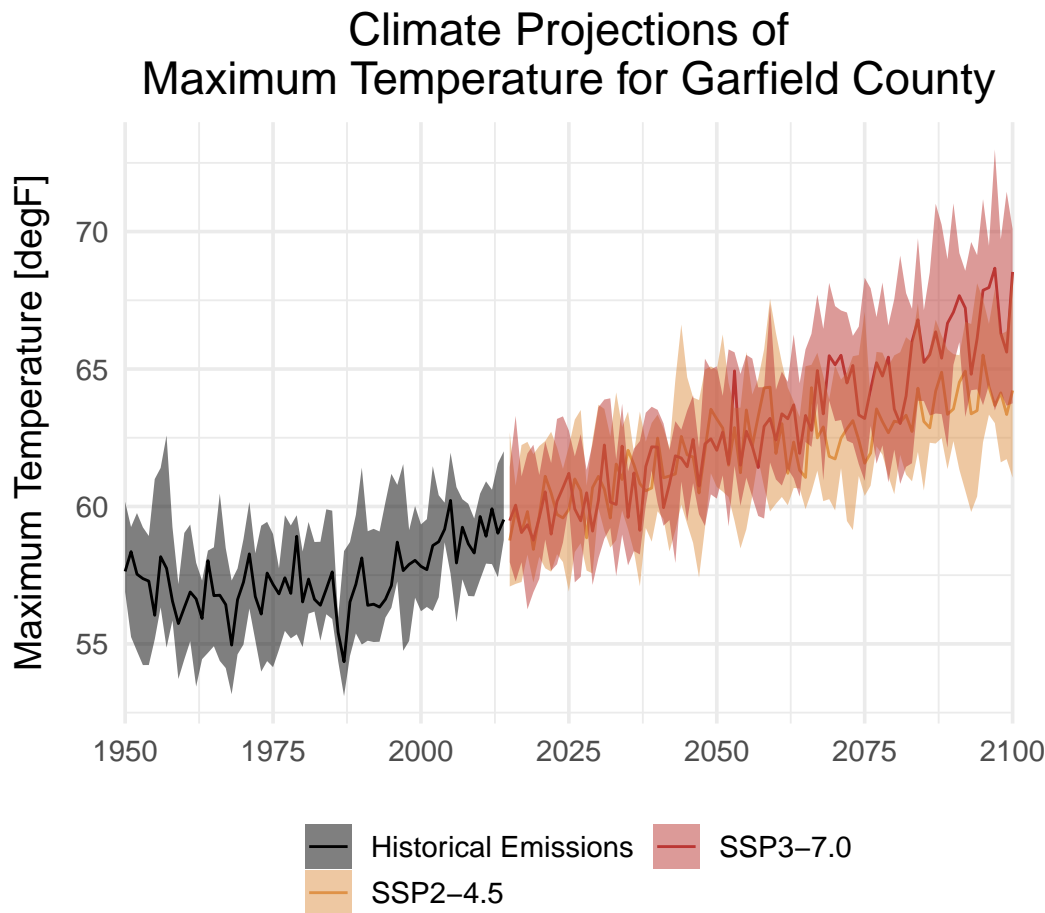


Figure 2: Projected Timeseries Of Annual Max. Temperature In Garfield County

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

Month	SSP2-4.5	SSP3-7.0
<b>Mid Century (2040-2069)</b>		
Jan	2.54	2.74
Feb	3.30	3.89
Mar	2.79	2.76
Apr	2.41	2.76
May	2.61	2.65
Jun	3.46	3.41
Jul	4.08	4.07
Aug	4.29	5.30
Sep	3.98	4.69
Oct	3.90	3.85
Nov	4.33	4.76
Dec	2.88	3.51
<b>End-of-Century (2070-2099)</b>		
Jan	3.87	6.46
Feb	6.82	5.24
Mar	5.40	7.41
Apr	2.47	5.74
May	4.05	6.93
Jun	4.22	6.38
Jul	7.79	10.48
Aug	5.53	12.75
Sep	5.98	11.91
Oct	6.24	8.63
Nov	6.16	5.81
Dec	3.84	7.54

### 3.2 Projected Monthly Changes in Max. Temperature in Garfield 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), Nov is projected to see the largest increase in max. temperature (4.33 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 (5.3 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 (7.79 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 (12.75 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.

### Monthly Climate Projections of Maximum Temperature for Garfield County

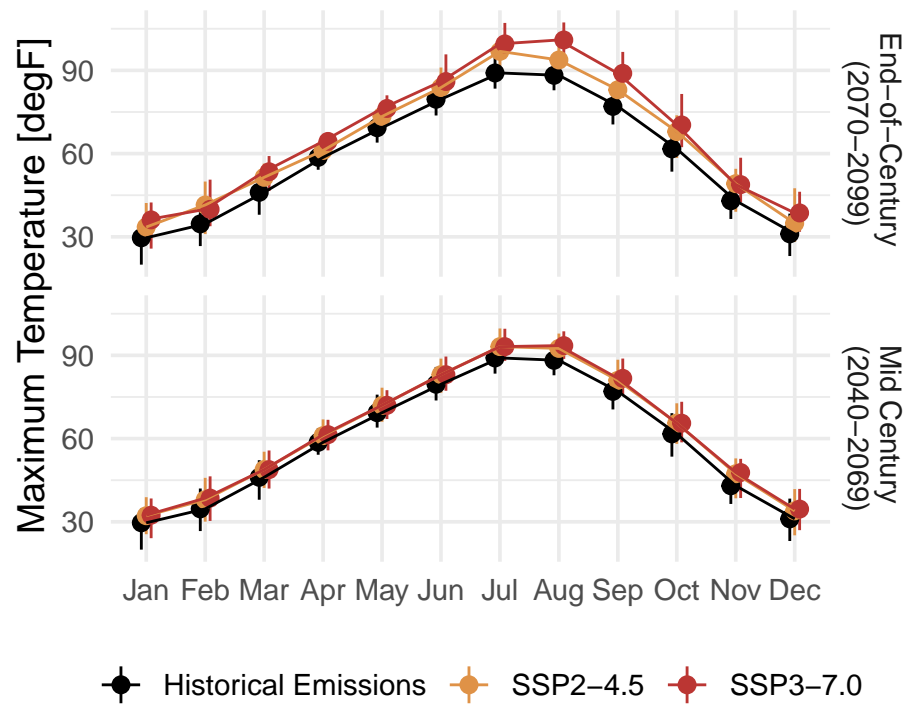


Figure 3: Projected Monthly Max. Temperature Changes In Garfield County