

# Colorado State University, Fort Collins, CO Weather Station Monthly Summary Report

**Month: September**  
**Year: 2022**



**Photo Credit: Noah Newman**

## **Temperature:**

Mean  $T_{\max}$  was 82.3°F which is 4.9° above the 1991-2020 normal for the month. This is the 4<sup>th</sup> warmest (98<sup>th</sup> percentile) in the 134-year record (1889-2022). The last September this warm or warmer was 2021 with 83.4°F, the warmest on record.

Mean  $T_{\min}$  was 49.9°F which is 1.9° above the 1991-2020 normal for the month. This is the 8<sup>th</sup> warmest (94<sup>th</sup> percentile) in the 134-year record (1889-2022), tied with 2021, which is also the last September this warm or warmer.

Mean  $T_{\text{mean}}$  was 66.1°F which is 3.4° above the 1991-2020 normal for the month. This is the 5<sup>th</sup> warmest (97<sup>th</sup> percentile) in the 134-year record (1889-2022). The last September this warm or warmer was 2021 with 66.7°F.

Water Year 2022 (October-September) mean temperature was 52.1°F which is 1.4° above the 1991-2020 normal for the year. This is the 4<sup>th</sup> warmest water year in the 134-year record (98<sup>th</sup> percentile), tied with 2006. The last water year this warm or warmer was 2017 with 52.4°F.

The maximum daily temperature for the month was 97°F and occurred on September 6, 2022.

The minimum daily temperature for the month was 42°F and occurred on September 24, 2022.

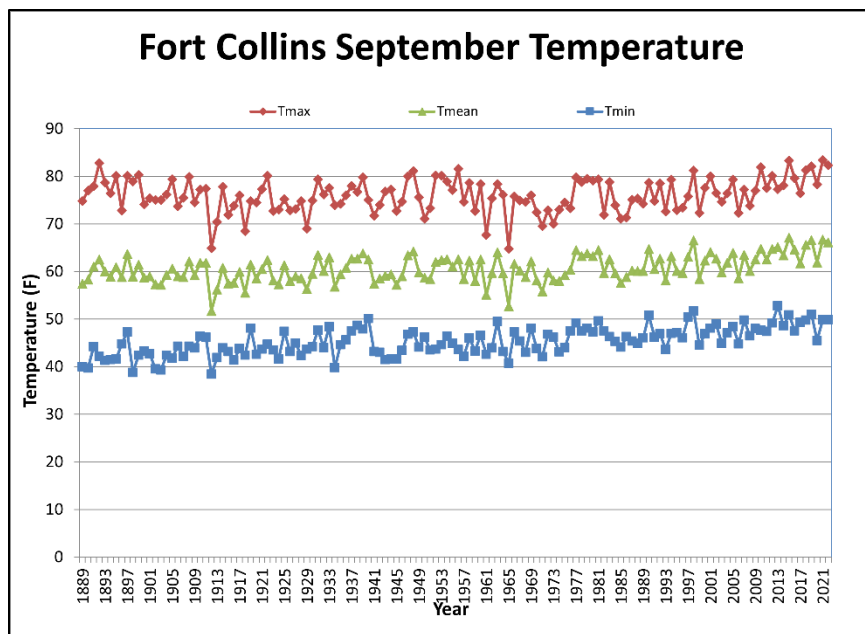


Figure 1: September temperature time series.

## Misc. Temperature (record status, thresholds, etc.):

### **Maximum Temperature Record:**

*September 7, 2022: The maximum temperature of 94°F broke the old record for the day of 93°F set in 1959.*

*September 8, 2022: The maximum temperature of 96°F broke the old record for the day of 93°F set in 2013.*

### **90° Days**

*September 2022 had 9 days with a max temperature at or above 90F. The average for September is 1 day. This is the most days at or above 90F in September, beating 1895 (yes, 1895) which had 8 days.*

*This year has seen 53 days with a max temperature at or above 90F. The average for the year through September is 20. This is the 2<sup>nd</sup> most days at or above 90F for a year. The highest is 57 in 2012.*

## Precipitation and Snowfall:

Total monthly precipitation was 1.22” which is 0.21” below the 1991-2020 normal for the month (85% of normal). This ranks as the 82<sup>nd</sup> driest (61<sup>st</sup> percentile) in the 134-year record (1889-2022). The last September this dry or drier was 2021 with 0.56” of precipitation.

Water Year 2022 precipitation totaled 12.80” which is 3.08” below the 1991-2020 normal (81% of normal). This ranks as 34<sup>th</sup> driest water year (25<sup>th</sup> percentile) in the 133-year record (1890-2022), tied with 1974. The last water year this dry or drier was 2012 with 12.78” of precipitation.

September had 6 days with measurable precipitation ( $\geq 0.01$ ”) and 7 days with a trace of precipitation ( $\leq 0.01$ ”)

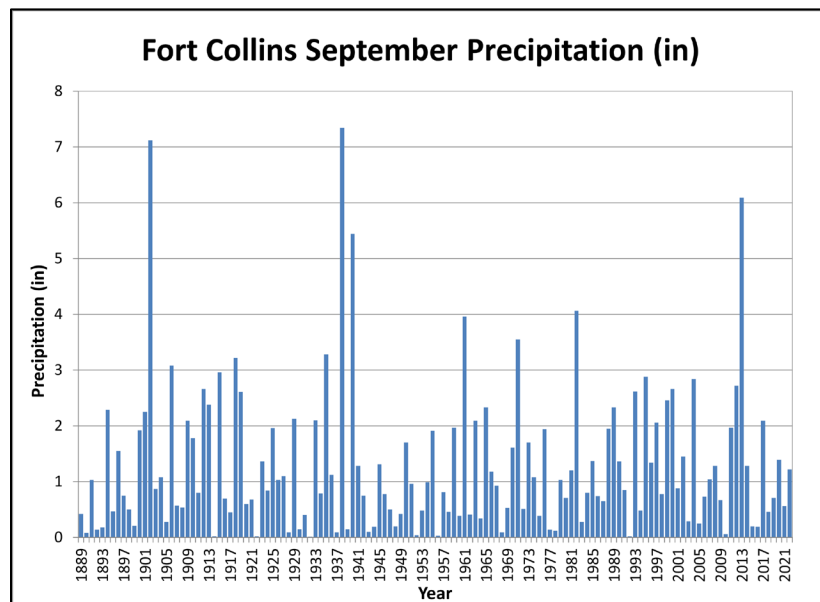


Figure 2: September precipitation time series.

## Misc. Precipitation (predominant type, record status, etc.):

*No precipitation records for September 2022.*

*The highest one-day precipitation total for September 2022 was 0.52” falling on September 10<sup>th</sup>.*

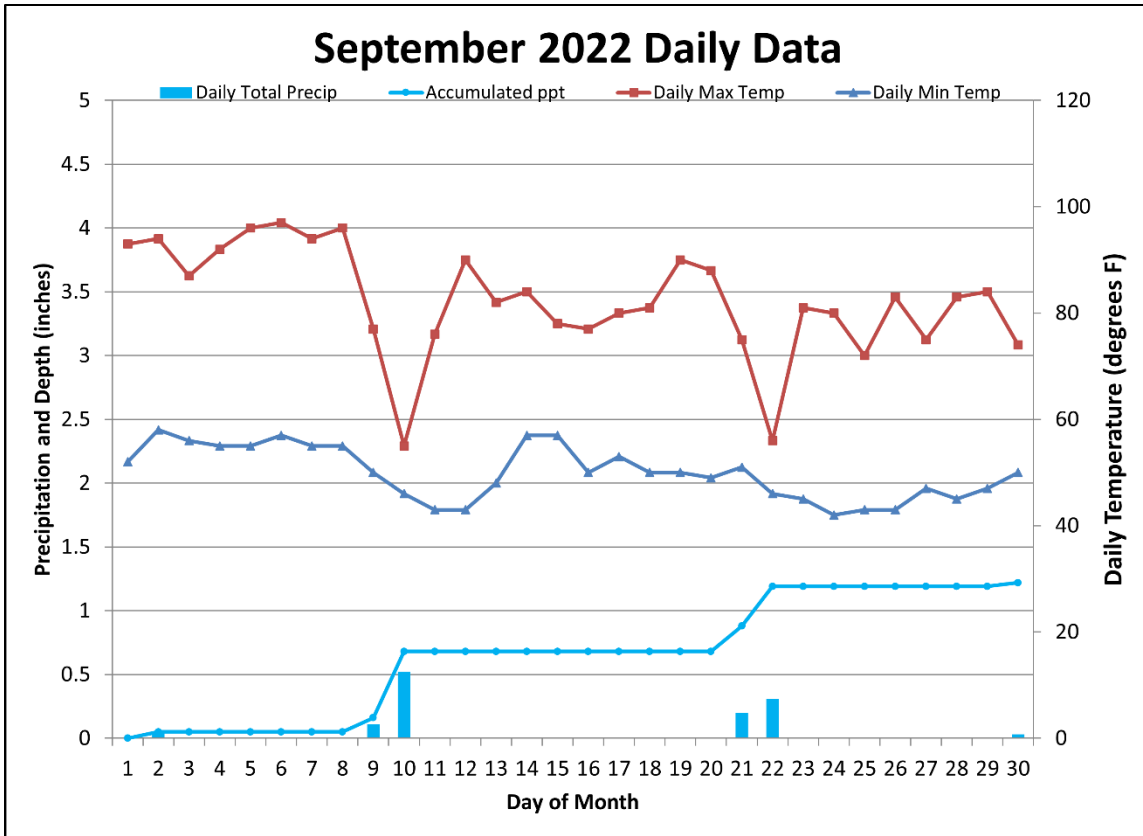


Figure 3: Daily Data for September 2022. Precipitation and temperature both show up on this graph. The y-axis on the left is for precipitation and snowfall. The y-axis on the right is for temperature.

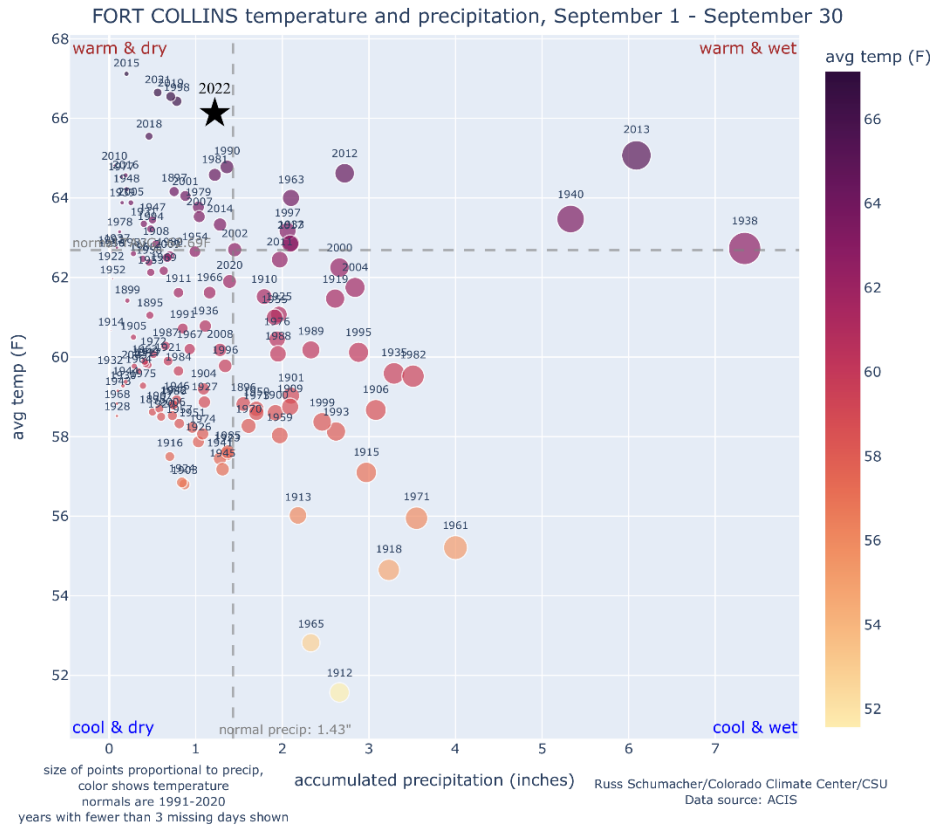
**Wind:**

In September 2022 there were 5 days with maximum wind gusts  $\geq 20$  mph and 0 days  $\geq 30$  mph.

The maximum daily wind gust for the month was 24 mph and occurred on September 10, 2022, at 9:40 PM MST from 360° (N).

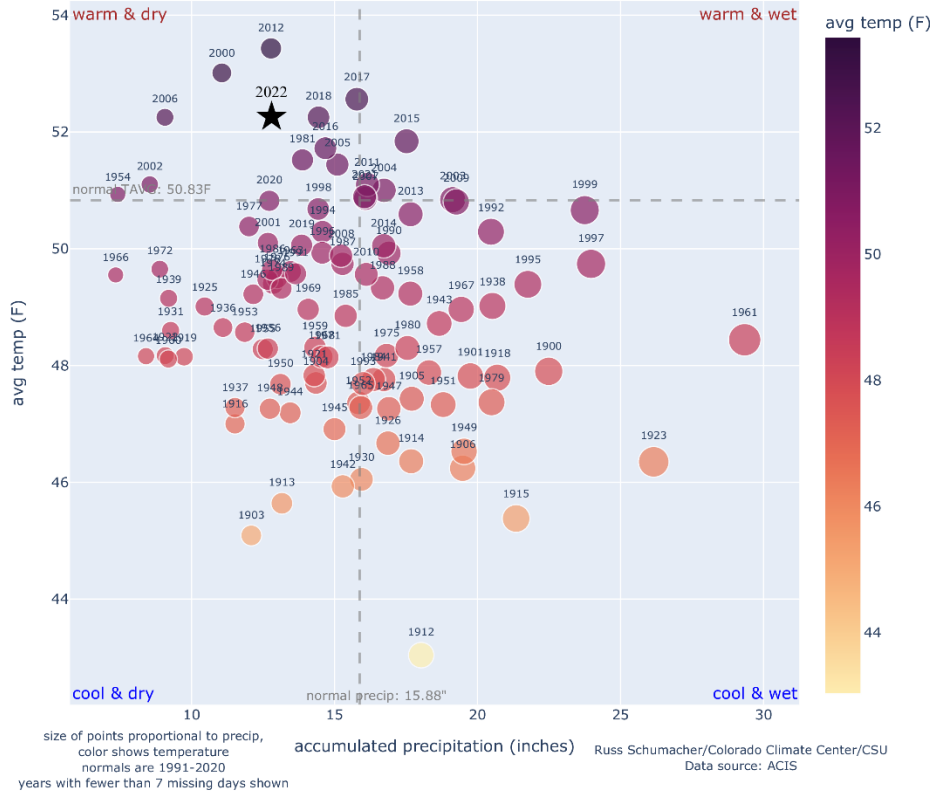
**Pan Evaporation:**

Pan evaporation for September 2022 totaled 4.29” which is 0.01” above the normal for the month (100% of normal).



**Figure 4:** September (top), water year (top on next page) and the last three months (bottom on next page) precipitation and temperature data plot. Each dot plots monthly average temperature and precipitation at Fort Collins for the period of record. From left to right, monthly precipitation is shown on the x-axis, where the wettest years are plotted furthest to the right. Dot sizes are proportional to precipitation amounts. From bottom to top on the y-axis, average monthly temperature is shown, where the warmest years are plotted towards the top. The dots are also color coded with darker colors indicating higher temperatures. The horizontal and vertical dotted lines indicate the 1991-2020 normals. September was 5<sup>th</sup> warmest and slightly drier than normal. The water year (Oct-Sep) was 4<sup>th</sup> warmest and ended drier than normal. The last 3 month (Jul-Sep) was the warmest on record, but wetter than normal, looks like only the 4<sup>th</sup> time in the warm & wet quadrant with 2000, 2007 and 2013.

FORT COLLINS temperature and precipitation, October 1 - September 30



FORT COLLINS temperature and precipitation, July 1 - September 30

