

Denver Monthly Climate Summary

July, 2024

NWS Boulder



NATIONAL WEATHER SERVICE
OCEANIC AND ATMOSPHERIC ADMINISTRATION

Issued: 8/2/2024

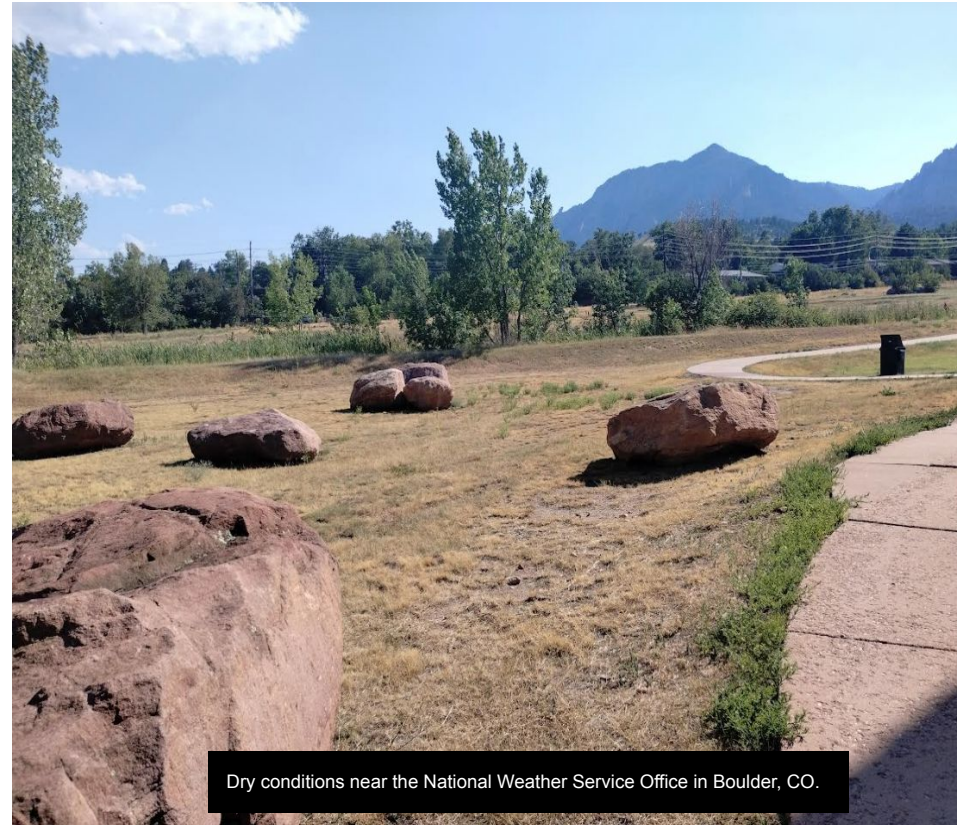


Monthly Overview

Denver experienced its second consecutive hot and dry month in July as a large upper level ridge of high pressure dominated the Southern and Central Rockies for much of the month. There were 20 days in which the temperature reached or exceeded 90 degrees at Denver International Airport with three days reaching or exceeding the century mark. Despite the periods of hot temperatures, the average monthly temperature ended just above normal due to a few cooler days associated with the passage of cold fronts.

Precipitation was meager during the month with 7 days of measurable precipitation and only one day with more than a quarter of an inch of rain falling into the official rain gauge at Denver International Airport. The greatest daily precipitation of 0.47" occurred on the evening of the 20th when a line of strong to severe thunderstorms moved south across the Front Range Urban Corridor.

The very dry and hot weather across the forecast area led to several forest fires across the Front Range Foothills and plains the last few days of the month. Smoke from these fires as well as fires across Canada and the West Coast of the U.S. produced smoky skies and poor air quality across the region the last ten days of the month.



Dry conditions near the National Weather Service Office in Boulder, CO.





Monthly Temperature Data (July)

- Temperatures were near normal in Denver this month. Denver's mean temperature was 75.7°F, which is 0.6°F above normal.
- The highest temperature for the month was 102°F on the 12th, and the lowest temperature was 52°F which occurred on the 5th.
- On July 12th and 14th, the max temperature climbed to 102 and 101 degrees respectively. These temperatures set new record max temperatures for the date. Denver also equaled the record high of 99 degrees on the 29th which was last set in 2005.

Temperature	Observed	Normal	Departure
Average High	91.7	89.9	+1.8
Average Low	59.6	60.2	-0.6
Average Mean	75.7	75.1	+0.6

Temperature Records set this Month:

Date	Type	Observed	Previous Record (Year)
07/12/2024	Max Temperature	102°	1971
07/14/2024	Max Temperature	101°	1878
07/29/2024	Max Temperature	99°	2005





Monthly Precipitation (July)

- Precipitation for July 2024 was only 1.10" which is 1.04 inches below normal of 2.14".
- No precipitation records were observed this month

Precipitation	Observed	Normal	Departure
Total Precipitation	1.10"	2.14"	-1.04"
# of Days w/ Measurable	7	9	-2

Snowfall	Observed	Normal	Departure
Total Snowfall	0.0"	0.0"	0.0"

Precipitation Records set this Month:

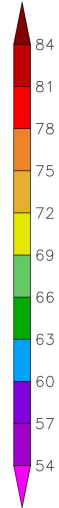
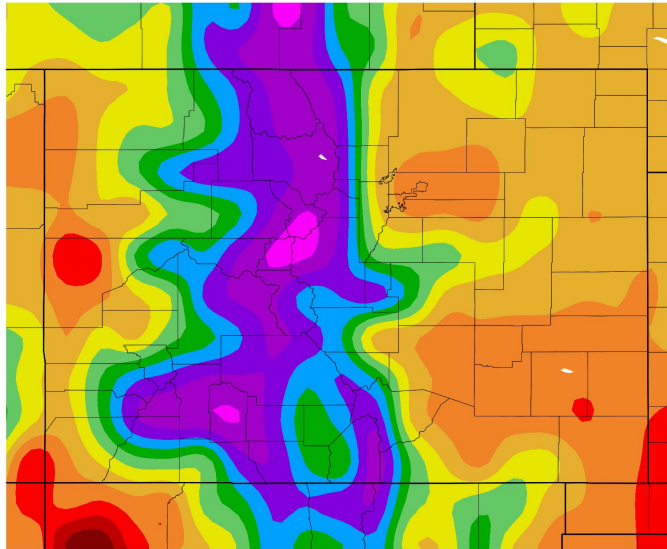
Date	Type	Observed	Previous Record (Year)
No Records Set this Month			



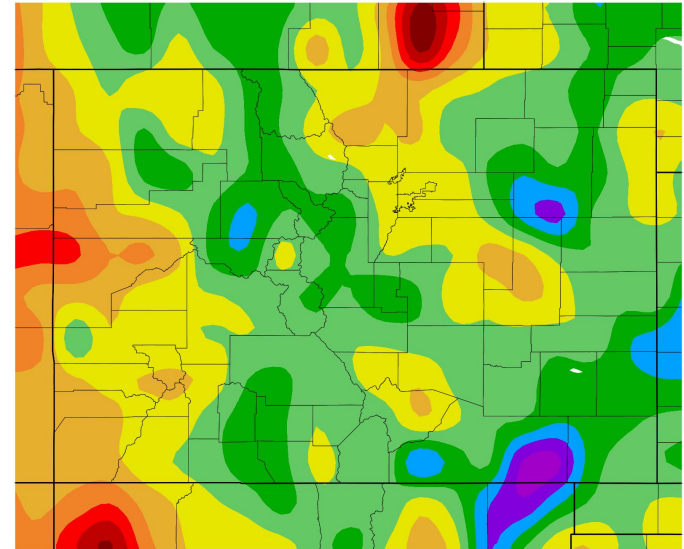


Statewide Temperature July 2024

Temperature (F)
7/1/2024 - 7/31/2024



Departure from Normal Temperature (F)
7/1/2024 - 7/31/2024



Generated 8/5/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Generated 8/5/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers





Top 10 Hi/Low Temperature Years

Average Temperatures for the Month of July (Records since 1872)

Top Ten Warmest

Rank	Temperature (°F)	Year(s)
1	78.9	2012
2	78.0	2022
3	77.8	1934
4	77.7	2005
5	77.6	2008
6	77.3	1936
7	77.1	1939
8	76.9	2003
	76.9	1966
10	76.7	2021, 2001, 2000

Top Ten Coldest

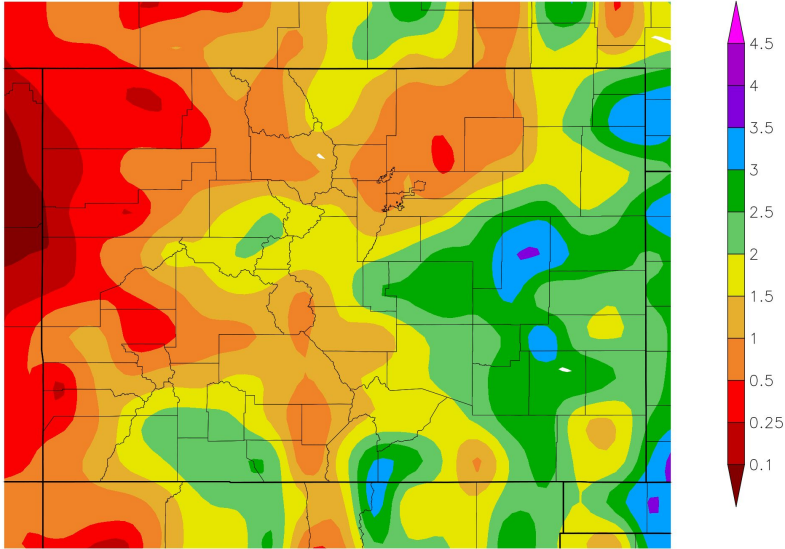
Rank	Temperature (°F)	Year(s)
1	67.3	1895
2	68.2	1906
3	68.7	1915
	68.7	1904
5	68.9	1950
	68.9	1905
	68.9	1891
8	69.0	1875
9	69.1	1967
10	69.1	1872





Statewide Precipitation July 2024

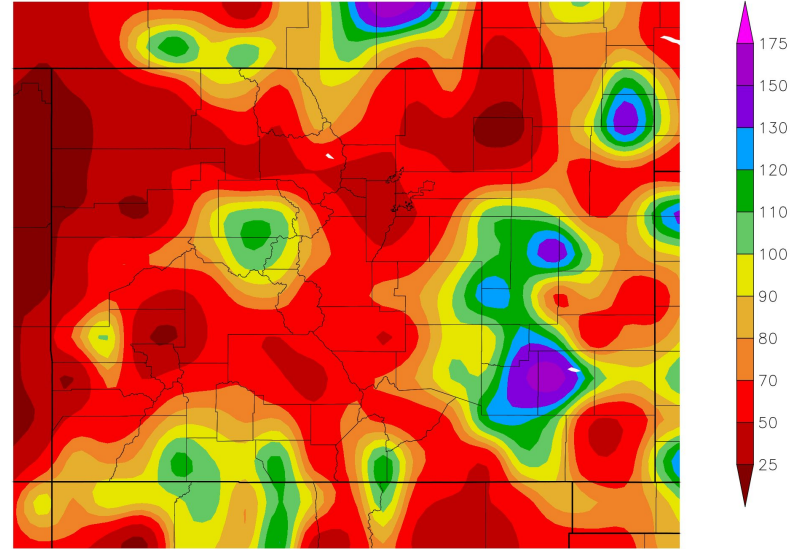
Precipitation (in)
7/1/2024 - 7/31/2024



Generated 8/5/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
7/1/2024 - 7/31/2024



Generated 8/5/2024 at HPRCC using provisional data.

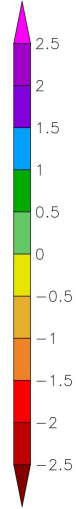
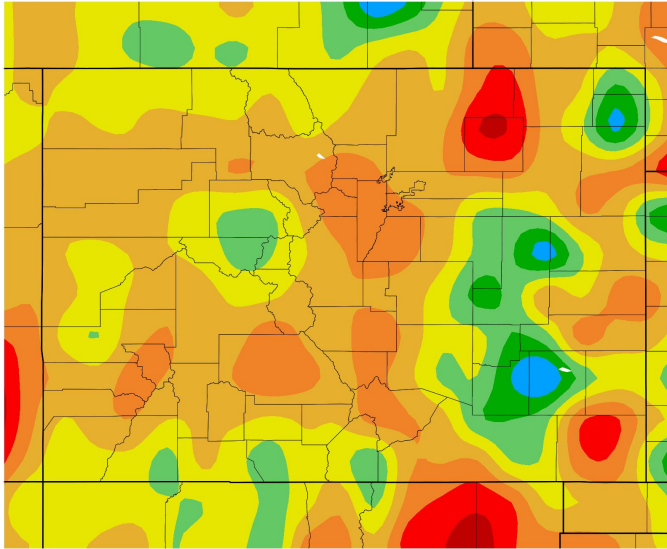
NOAA Regional Climate Centers



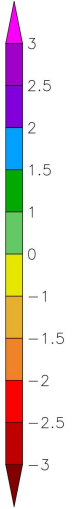
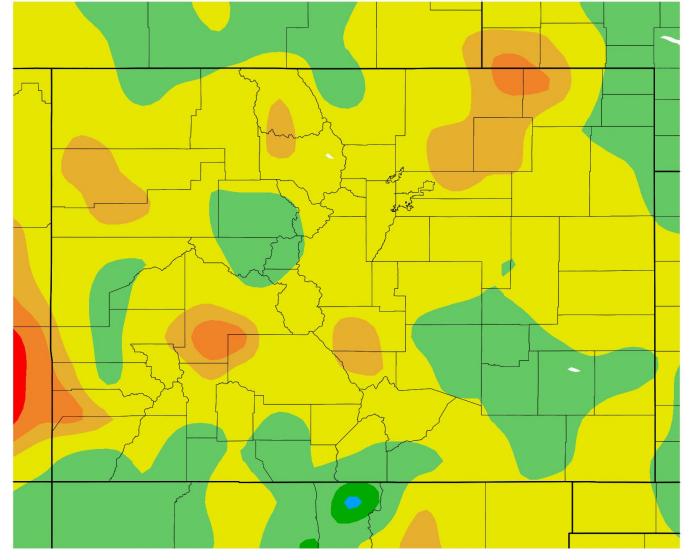


Statewide Precipitation July 2024

Departure from Normal Precipitation (in)
7/1/2024 - 7/31/2024



Monthly SPI
7/1/2024 - 7/31/2024



Generated 8/5/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Generated 8/4/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers





Top 10 Hi/Low Precipitation Years

Precipitation during the month of July (Records since 1872)

Top Ten **Wettest**

Rank	Precipitation (in.)	Year(s)
1	6.41"	1965
2	5.92"	1998
3	5.60"	1997
4	5.24"	1919
5	4.76"	2001
6	4.28"	1895
7	4.17"	1956
	4.17"	1909
	4.17"	1875
10	4.11"	1991

Top Ten **Driest**

Rank	Precipitation (in.)	Year(s)
1	0.01"	1901
2	0.08"	1939
3	0.24"	2008
4	0.27"	2005
5	0.31"	1917
6	0.32"	1934
7	0.33"	1924
	0.33"	1877
9	0.34"	2021
	0.34"	1891





Top 10 Hi/Low Snowfall Years

Snowfall during the month of July (Records since 1882)

No Snow has been observed at Denver in the month of July



National Oceanic and
Atmospheric Administration

U.S. Department of Commerce

National Weather Service
Denver/Boulder, CO



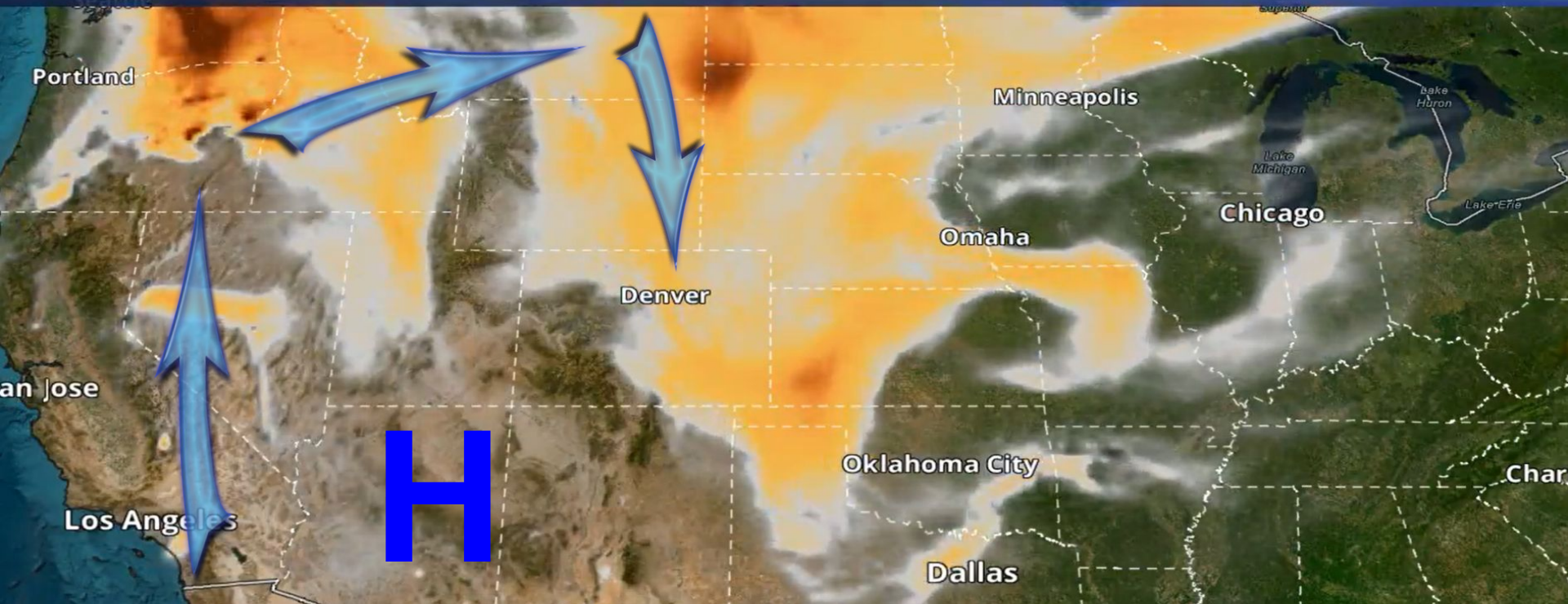
Smoke Forecast

Mon, Jul 22, 2024, 12 pm MDT

Vertically Integrated Smoke (mg/m²)



Issued: Mon, Jul 22, 2024, 11 am MDT



Circulation around an upper level high pressure center over Arizona allowed smoke from fires in the Pacific Northwest and Canada to move into North Central and Northeastern Colorado.

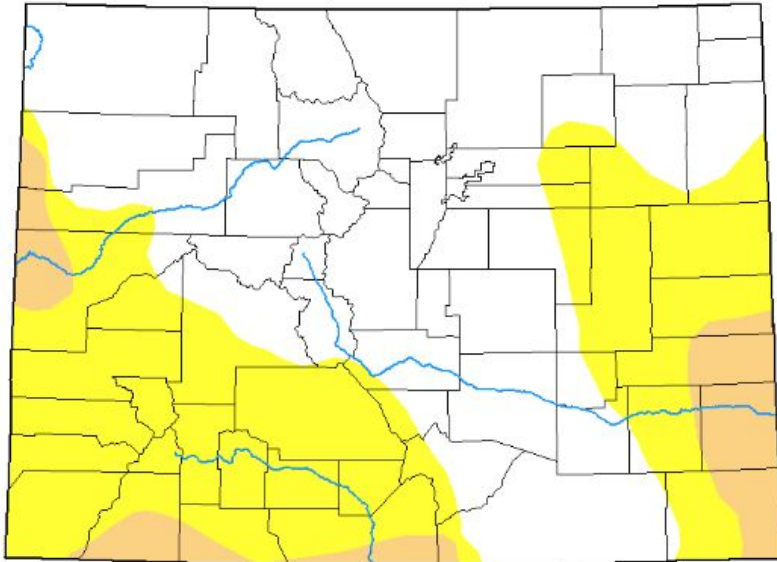




Drought Conditions Colorado

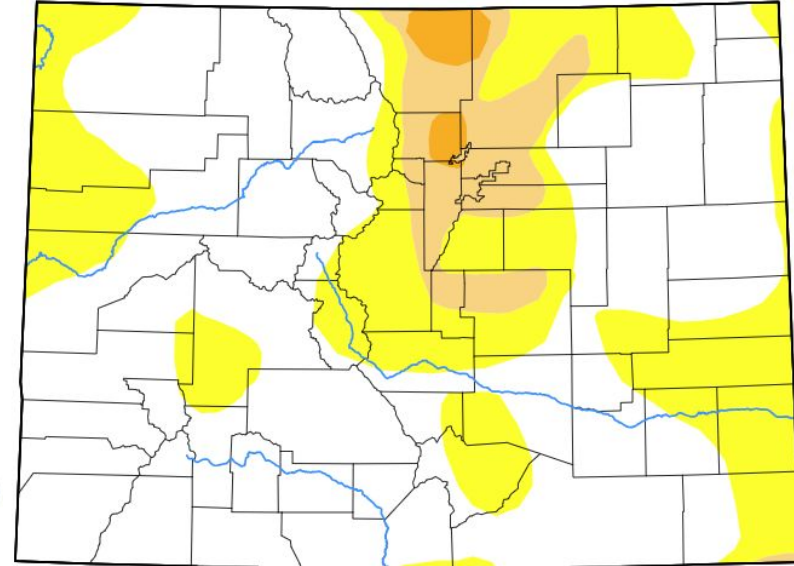
April 23, 2024

July 25, 2024



Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)



With the dry conditions over the past 2 months, drought conditions have returned to the Front Range Urban Corridor and Palmer Divide.





Fires Across the Front Range Foothills at the end of July



The Quarry Fire, in the foothills of Jefferson County west of Littleton. Photo Taken around midnight on July 30th



The large Alexander Mountain Fire , on the left and the smaller Stone Canyon fire just to it's right sending plumes of smoke on the afternoon of July 30th





Fires End of July

Very dry and hot conditions across North Central and Northeastern Colorado led to several fires across portions of the Front Range foothills and plains the last few days of July. The biggest and most impactful fires are listed below:

Alexander Mountain Fire

Location: Foothills west of Loveland.

Start Date: Late morning July 29th.

Size: 7,648 acres as of 7:00 P.M. July 31st.

Stone Canyon Fire

Location: Near Lyons

Start Date: Afternoon of July 30th

Size: 1553 acres as of the evening of July 31st

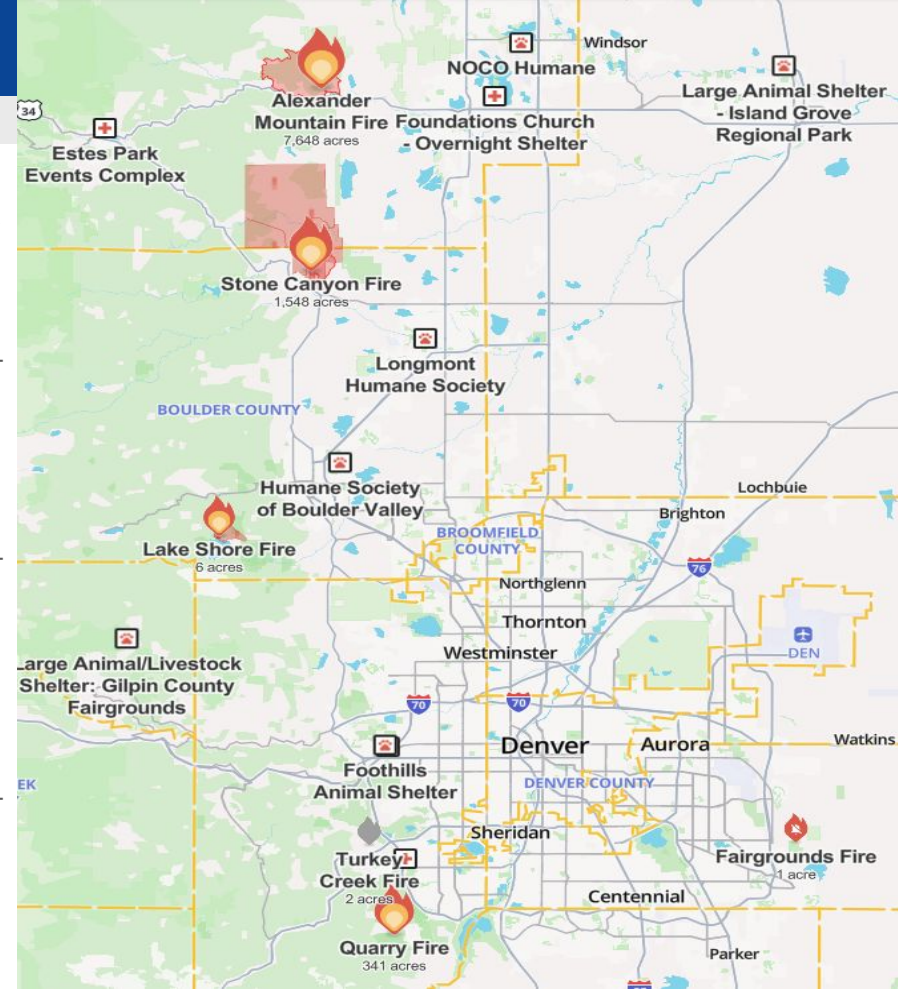
Impacts: 1 Fatality, 4 injured fire personnel and 5 homes lost.

Quarry Fire:

Location: Jefferson County, southwest of Littleton.

Start Date: Late evening of July 30th.

Size: 341 acres as of the evening of July 30th.





Smoke across the Front Range as viewed from the Office

