2022 Annual Climate Summary

Roxborough State Park January 14th

View taking off from DIA with blowing dust & strong winds across eastern Colorado photo taken by Matthew Brothers

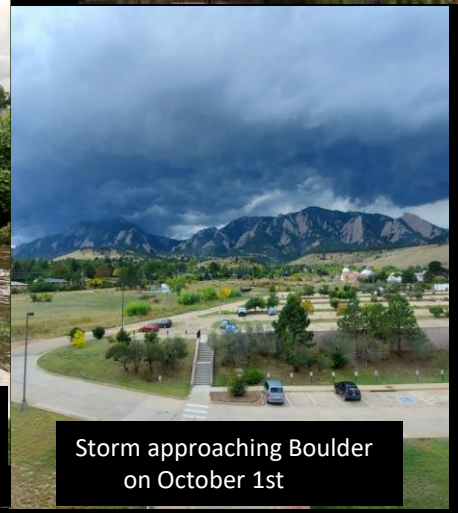
Rocky Mountain National Park Alpine Visitor Center. February 6th.

NCAR Fire on the afternoon of March 26th
Photo taken by Zach Hiris

The Flatirons May 2022

Landspout near Buckley AFB, July 29th
Photo taken by NWS Meteorologist Brandon Fling

Street flooded August 7th
16th and Franklin in City Park West
Photo courtesy of Emily Eelman



Storm approaching Boulder on October 1st

Fall Colors near Nederland with low clouds covering the eastern plains below October 7th

New blanket of the snow covers the Flatirons
Photo taken by John McCandless December 29th

After a mild & very dry fall & early winter in 2021, a pattern change brought much colder & wetter weather to Northeastern Colorado the first three months of 2022. April turned windy and very dry as the storm track shifted north of Colorado. Denver ended up with a meager 0.06 inches for the month which made it the third driest April in Denver weather history, going all the way back to 1872. The very dry weather combined with windy conditions also resulted in heightened fire danger across the plains, Palmer Divide and portions of the foothills through much of the month. A total 16 Red Flag Warnings for dangerous fire weather conditions were issued during the month. Considerable blowing dust was also observed across the plains at times.

May turned cooler and much wetter as a series of upper level storm systems moved across Colorado. Denver experienced hot and dry weather during the month of June as upper level high pressure dominated the Rocky Mountain Region. In July, the Southwestern Monsoon surged into Colorado with periods of heavy rain in the mountains and portions of the Northeastern Plains. Unfortunately, the Denver metro area managed to miss out on most of the precipitation with continued hot and mostly dry weather through early August. By the middle of August, the area finally saw some relief as the upper high shifted into the Southern Plains States. This pattern allowed a plume of monsoonal moisture and a cold front to move across the Front Range Urban Corridor, resulting in cooler and wetter weather. Some areas along the Front Range measured 2 to 4 inches of rain from the 15th through the 16th. However, Denver International Airport managed to miss out on most of this precipitation with just under one quarter of an inch during this period. Warmer and mostly dry conditions returned the last two weeks of August and continued through much of September as upper level high pressure rebuilt over the region. However, a lone strong storm moved over DIA producing 1.14 inches of rain on the 22nd which set a new daily precipitation record.

By October, an upper level trough of low pressure dominated the eastern half of the U.S. while an upper level ridge of high pressure remained over Western United States. This pattern placed Colorado under the influence of dry northwesterly flow aloft, resulting in continued above normal temperatures and below normal precipitation. For November, a series of upper level storms systems and associated cold fronts moving across the Rocky Mountain Region produced below normal temperatures across North Central and Northeastern Colorado. This ended a streak of 5 consecutive months with above normal temperatures in Denver going all the way back to June. Despite all of the storm systems, most of the precipitation was confined to the high country with meager amounts across the Front Range Urban Corridor, Plains and Palmer Divide.

December started out mild and mostly dry as upper level high pressure set up over Colorado. On December 12th and 13th, a deep upper level storm system produced blizzard conditions across the far northeastern plains of Colorado, and the majority of the impacts of this storm stayed east of Denver. During the late afternoon of the 21st, an Arctic cold front blasted across the plains with windy conditions, snow, and bitterly cold temperatures behind it. The temperature at DIA plunged 37 degrees F in 1 hour with the front. The morning low on the 22nd plunged to -24 degrees F, which was just 1 degree shy of the all time December low temperature record of -25 degrees F set back on December 22nd 1990 and December 24th 1876. The average temperature of -15F for December 22nd was the second coldest day ever recorded in Denver history. Another storm arrived for the 28th of December, this one a moist spring-like storm that produced heavy snowfall and much needed precipitation to the area.

2022 Temperature Data Denver, Colorado (Degrees F)

Average Max	Dep	Average Min	Dep	Mean	Dep	Highest	Date	Lowest	Date	HDD	CDD
66.0	0.9	36.7	-0.5	51.4	0.2	101	7/10, 08/05	-24	12/22	6001	1168

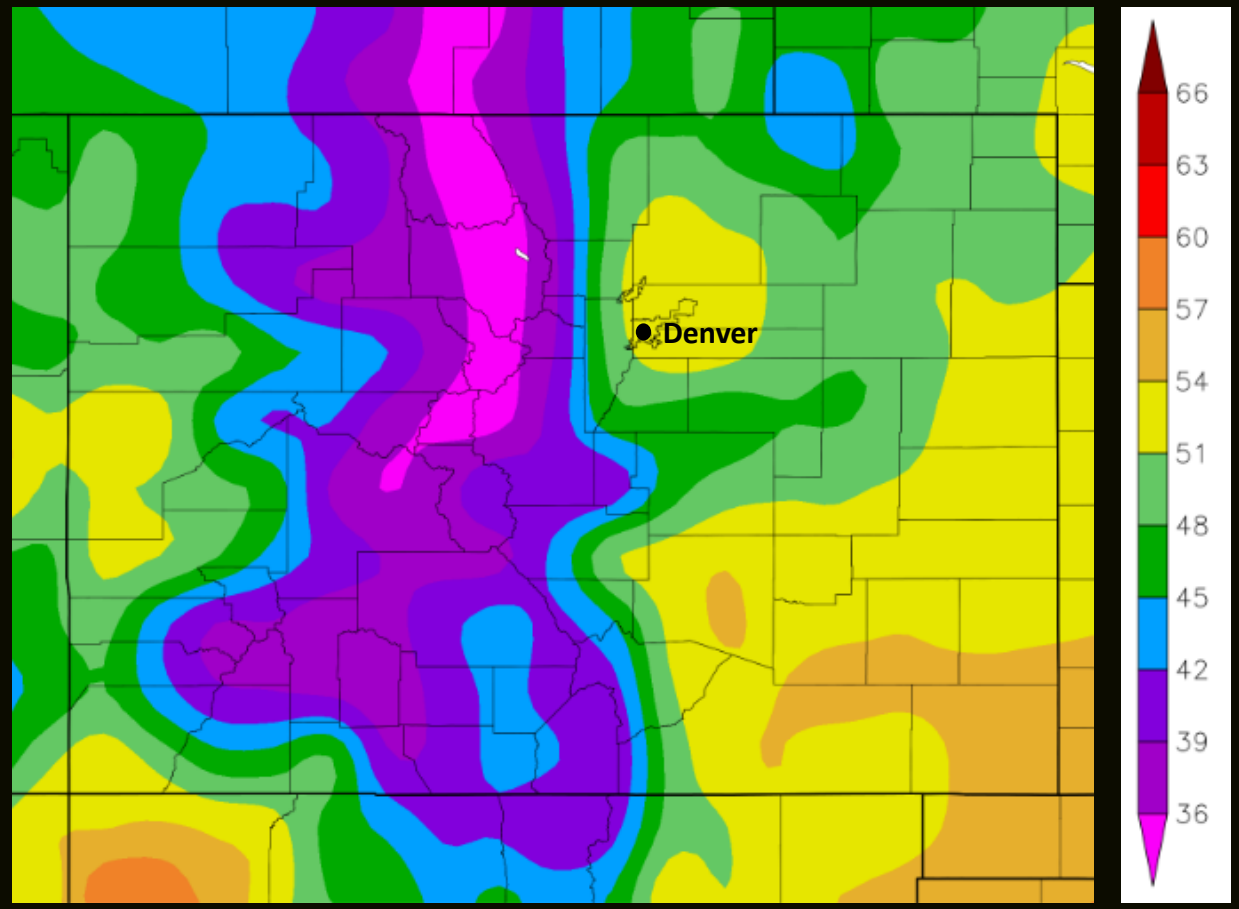
	Max Temperature >= 90º	Max Temperature <= 32º	Min Temperature <= 32º	Min Temperature <= 0º
# Days	67	27	158	11

2022 Precipitation/Snowfall Data Denver, Colorado (Inches)

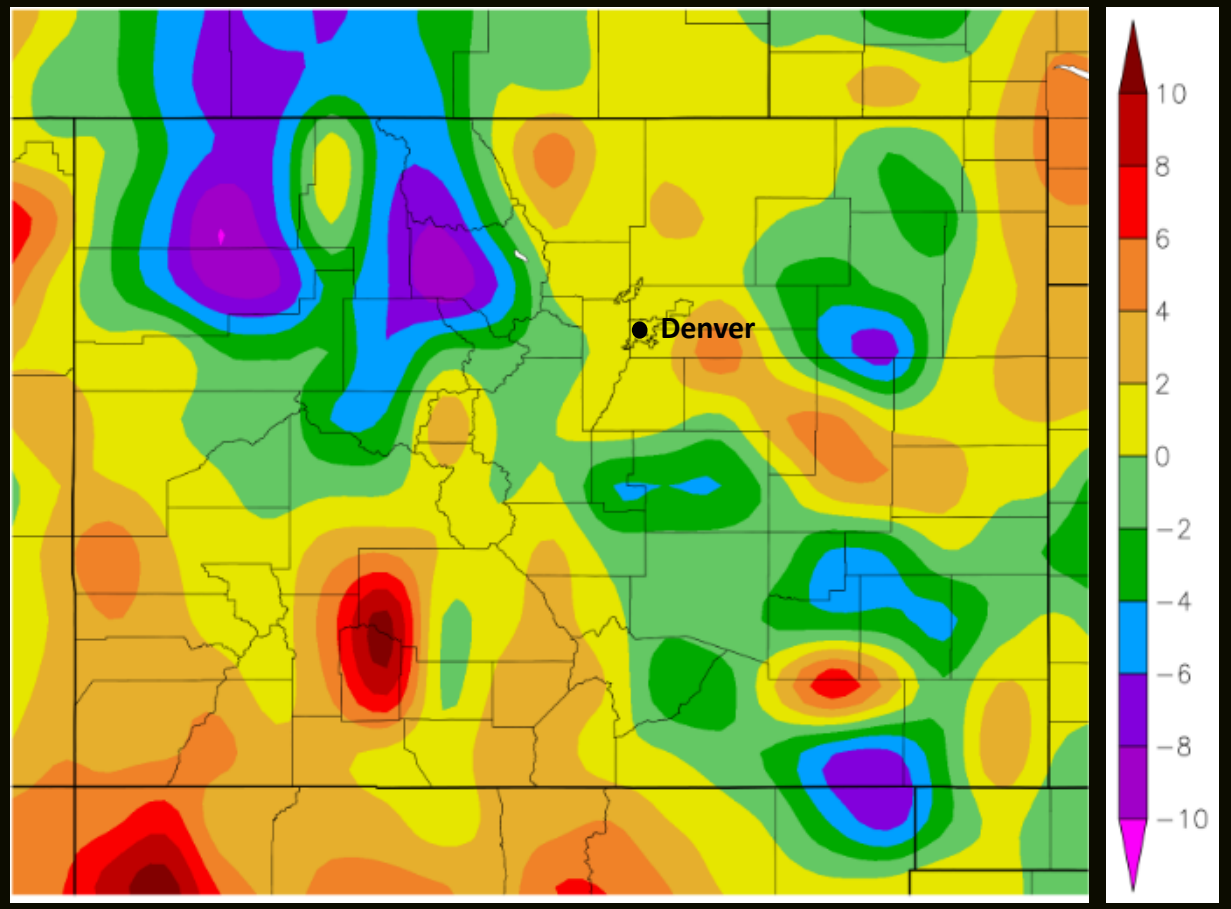
Month	Total Precipitation	Dep	Greatest Daily Amount	Date	Total Snowfall	Dep	Greatest Daily Amount	Date
January	0.78	0.40	0.25	1/25	13.4	7.0	5.0	1/25
February	0.94	0.53	0.24	2/11, 2/16	15.8	8.2	3.9	2/16
March	1.17	0.31	0.41	3/16	13.1	4.3	4.0	3/17
April	0.06	-1.62	0.05	4/29	Trace	-6.1	Trace	4/10, 4/29
May	2.59	0.43	0.71	5/20, 5/31	2.3	1.1	1.8	5/20
June	0.58	-1.36	0.52	6/1	0.0	0.0	0.0	N/A
July	0.99	-1.15	0.32	7/7	0.0	0.0	0.0	N/A
August	1.45	-0.13	1.14	8/21	0.0	0.0	0.0	N/A
September	1.25	-0.10	0.50	9/2	0.0	-0.8	0.0	N/A
October	0.46	-0.53	0.27	10/3	Trace	-3.9	Trace	10/23, 10/27
November	0.47	-0.17	0.18	11/3	10.9	3.6	4.5	11/3
December	1.18	0.83	0.60	12/28	13.0	6.4	6.4	12/28
Annual	11.92	-2.56	1.14	8/21	68.5	19.8	6.4	12/28

Mean

Annual Mean Temperature 2022 (ºF)



2022 Mean Temperature Departure from Normal (ºF)

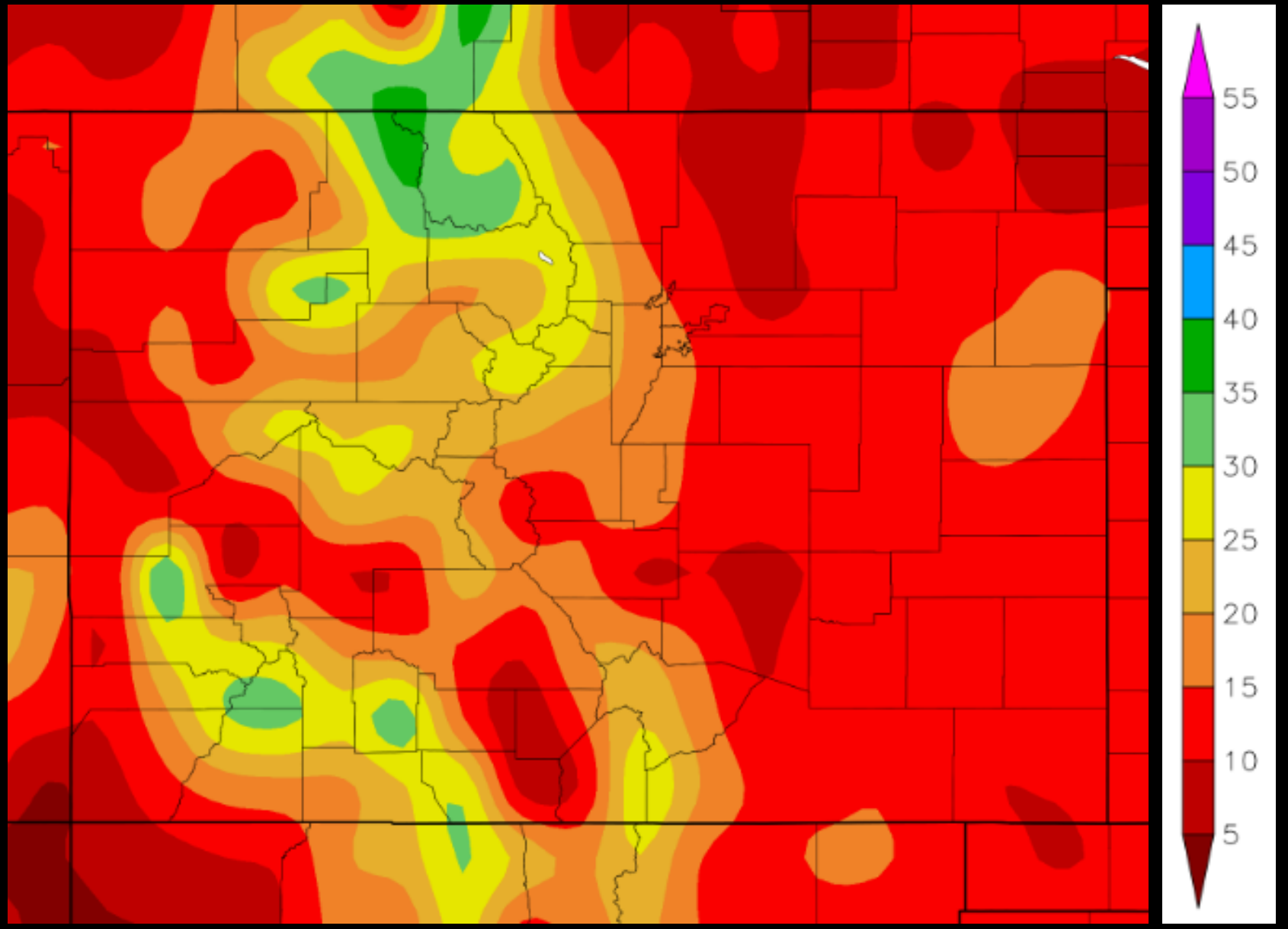


Graphics generated by HPRCC using provisional data

The daily high on December 22nd was just -6°F, and the low was -24°F, giving us an average daily temperature of only -15°F. This make December 22nd 2022, the 2nd coldest day in Denver Weather History.

Rank	Value	Ending Date
1	-17	1/11/1963
2	**-15**	**12/22/2022**
3	-14.5	12/21/1983
-	-14.5	1/6/1913
-	-14.5	1/19/1883
6	-14	12/22/1990
-	-14	12/21/1990
-	-14	2/3/1883
9	-13	1/12/1963
10	-12.5	2/4/1989
Last value also occurred in one or more previous years.		
Period of record: 1872-01-01 to 2022-12-22		

2022 Annual Precipitation (Inches)



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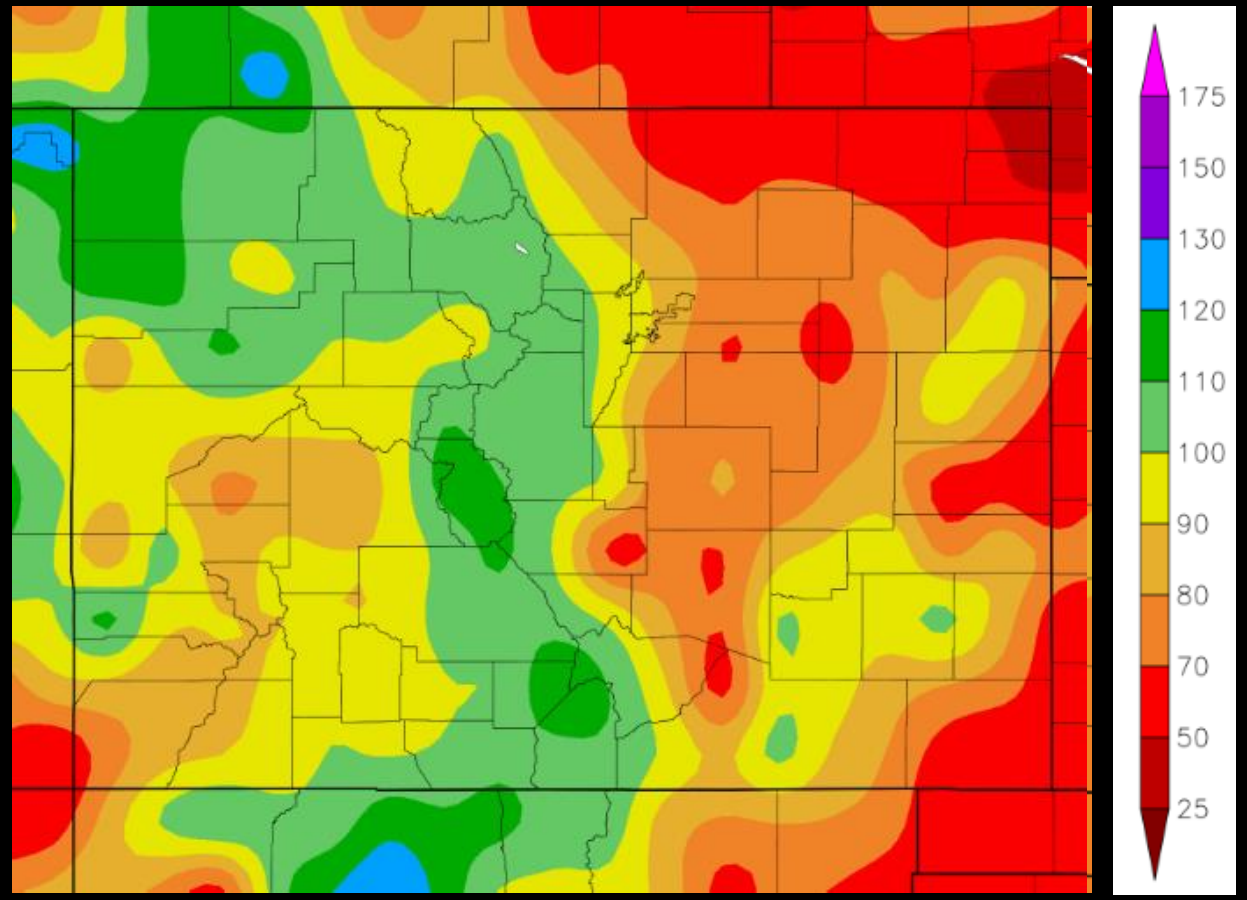
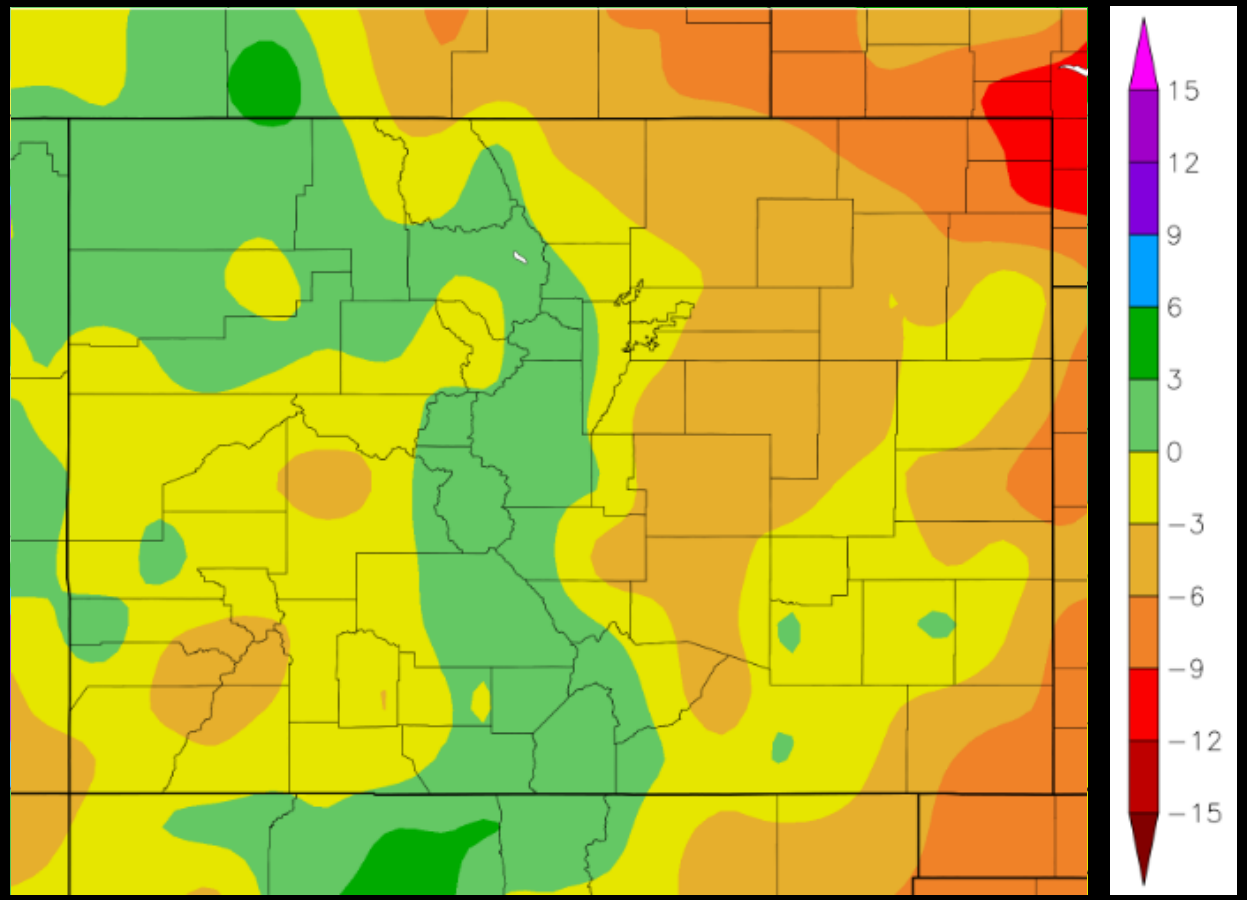
Percent of normal Precipitation 2022 (%)

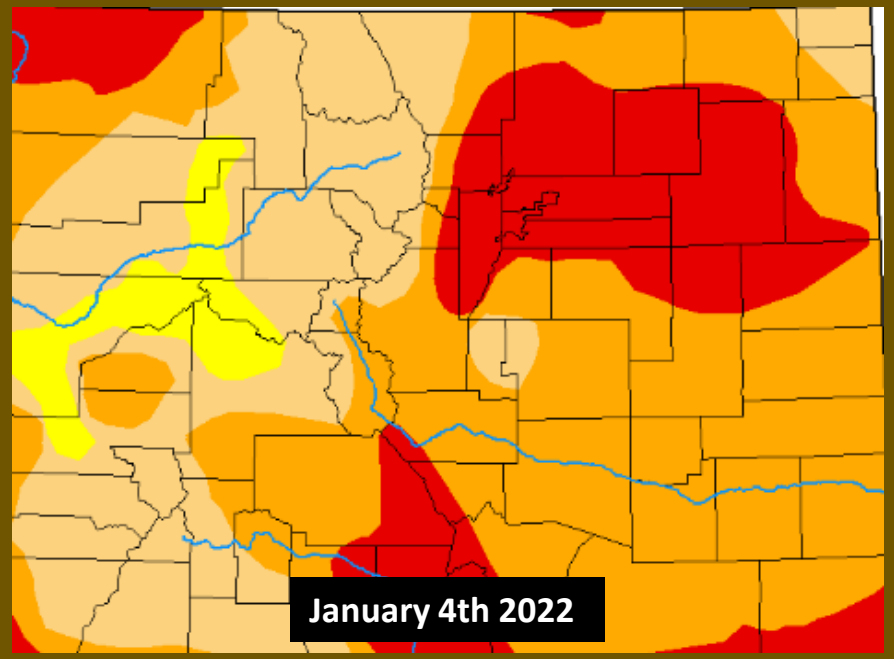


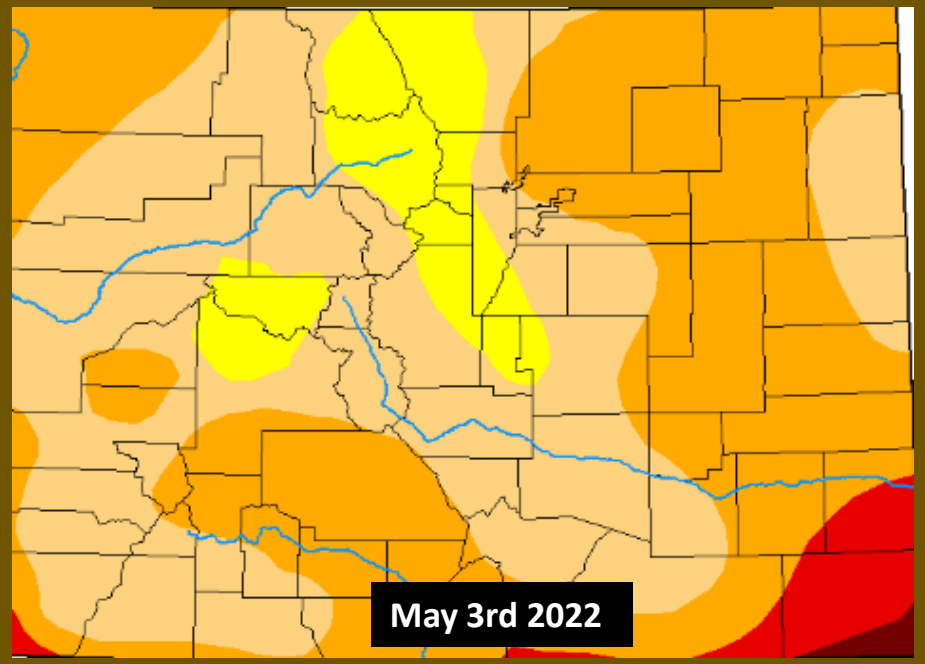
Departure from Normal Precipitation 2022 (Inches)

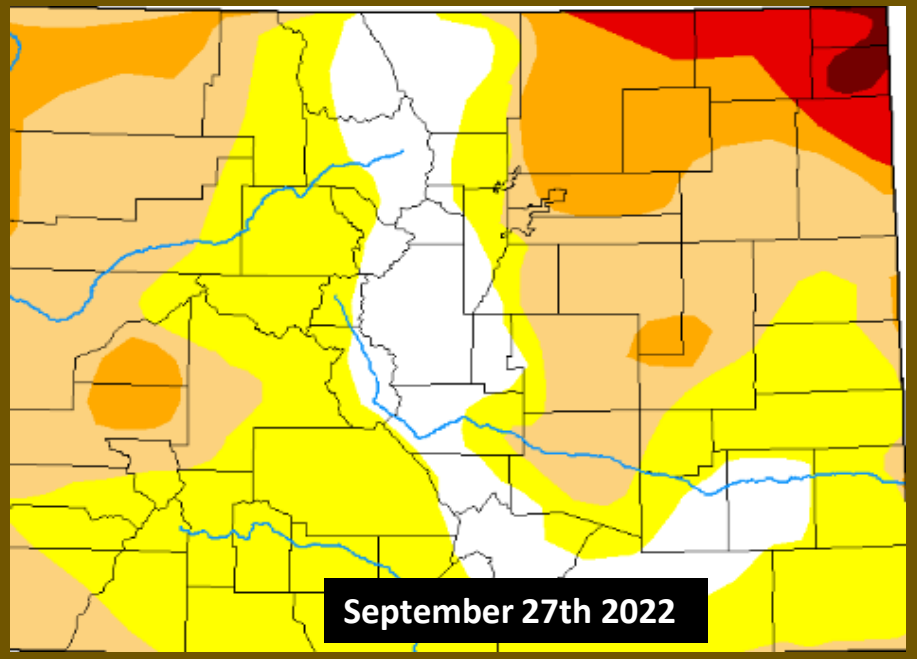


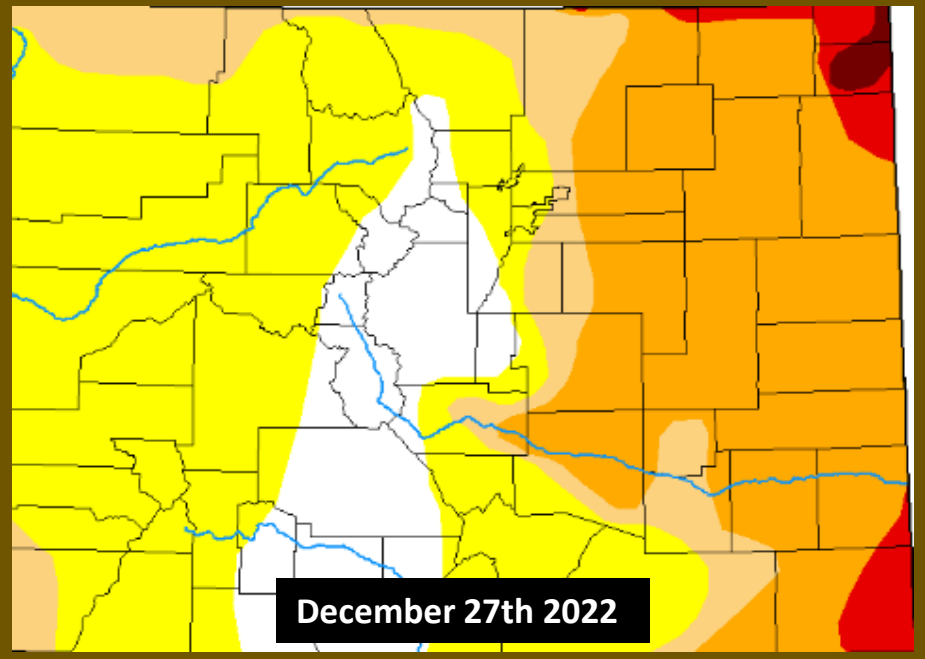
Graphics generated by HPRCC using provisional data

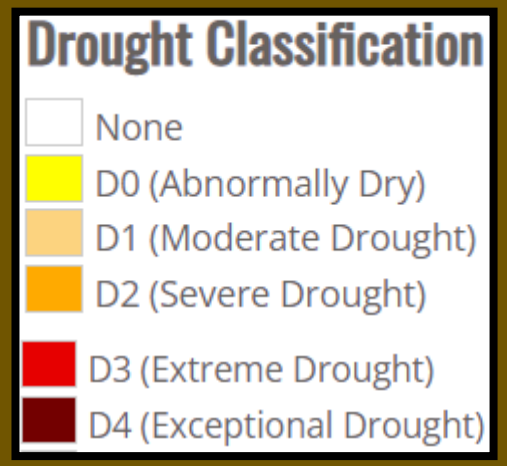
Drought Conditions across Colorado 2022











Drought conditions improved rather markedly over most of the state during the year. The exception was the far northeast corner of the state where Exceptional Drought developed over the summer and persisted through the end of 2022.