

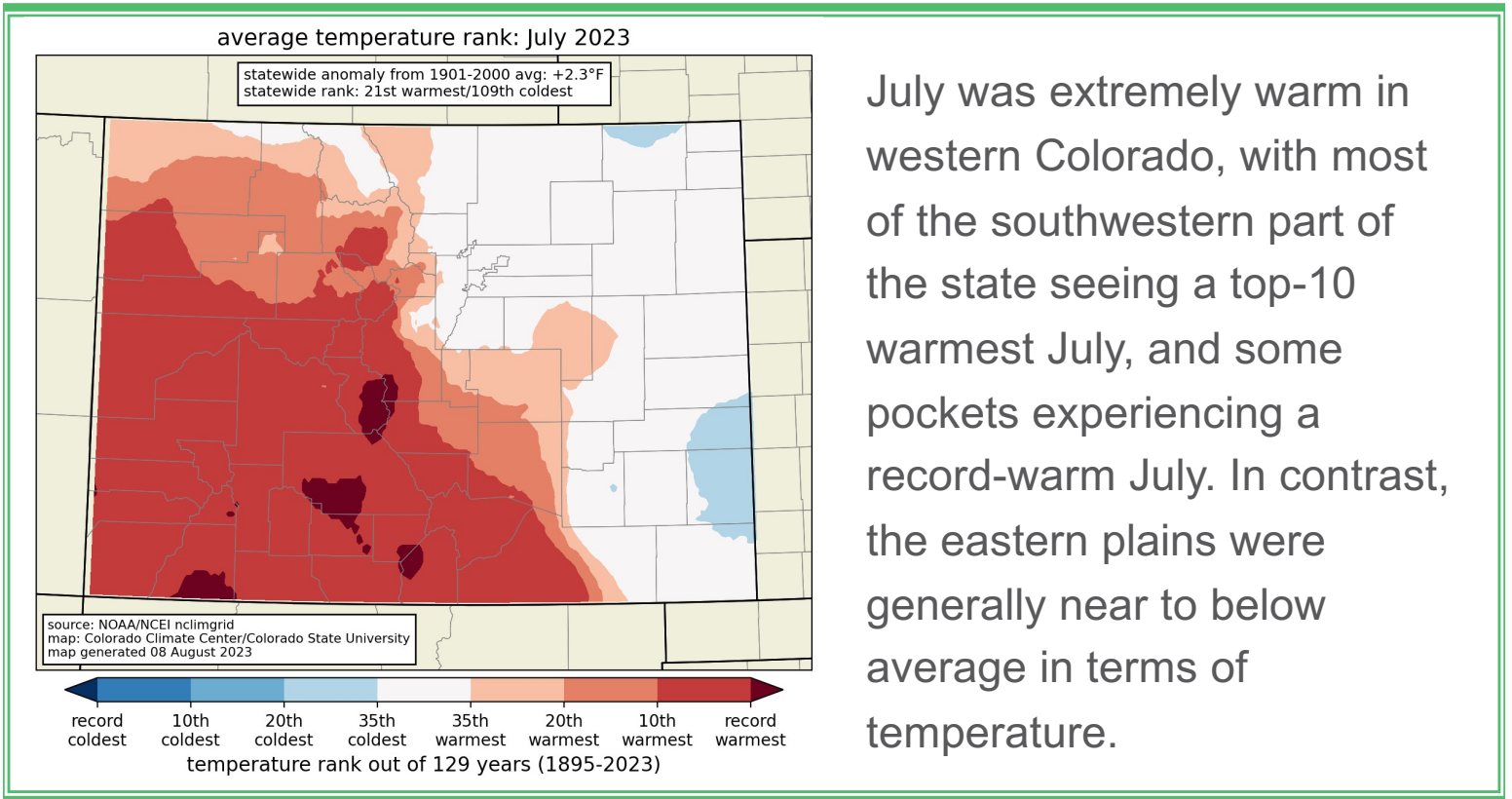


July 2023 Colorado Monthly Climate Summary

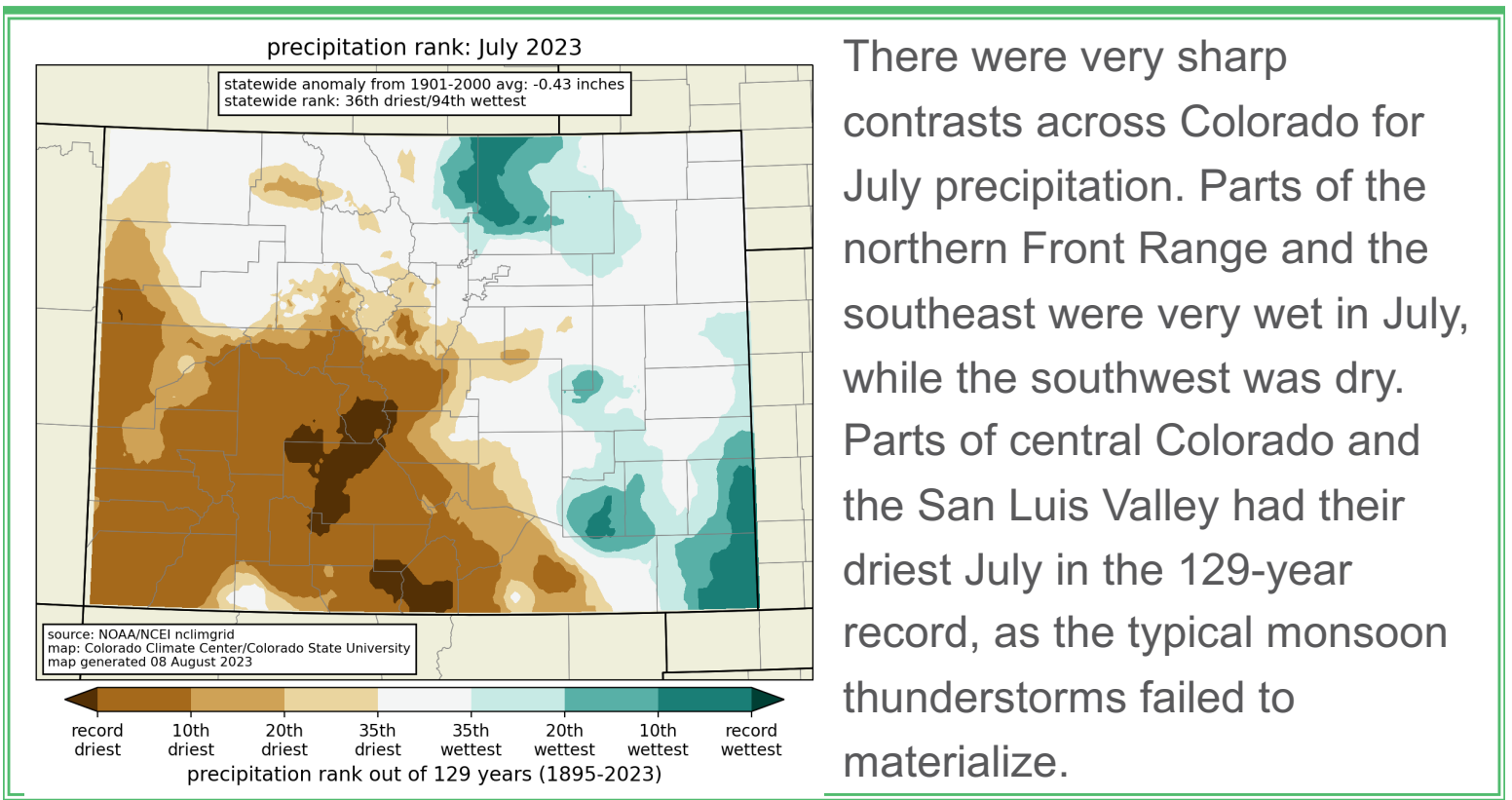


ATMOSPHERIC SCIENCE
COLORADO STATE UNIVERSITY

temperature



precipitation



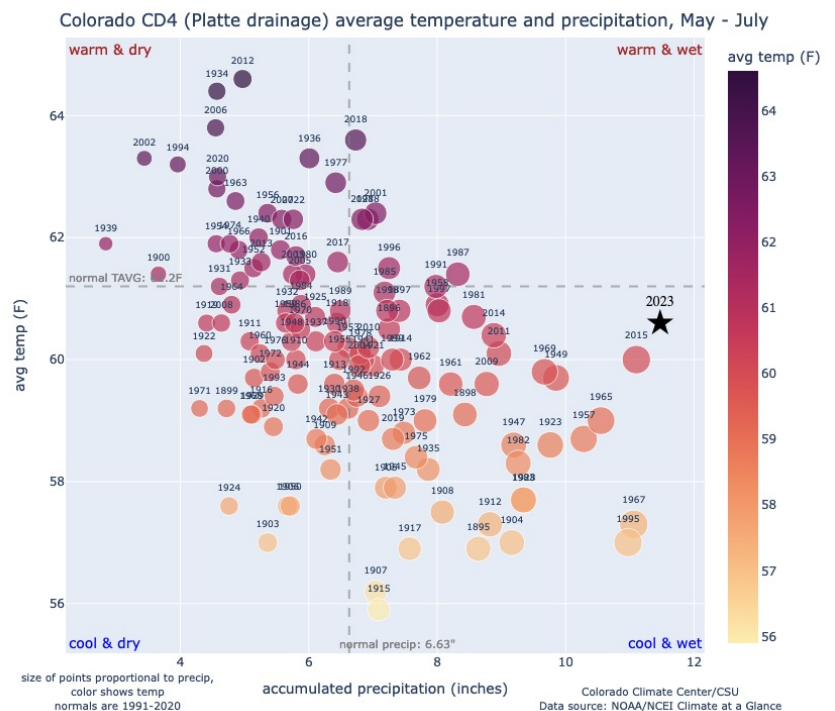
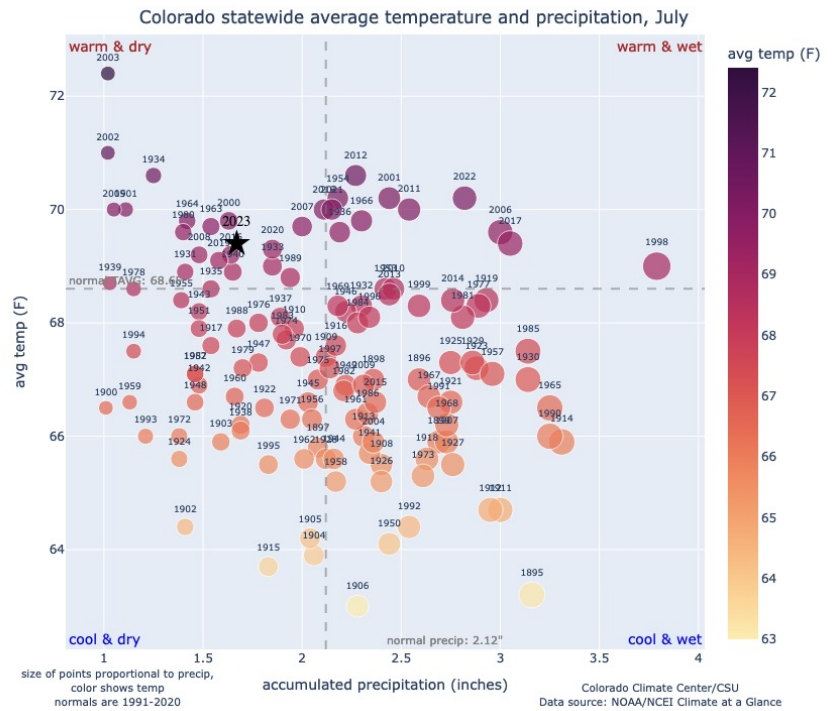
quadrant charts

Each dot plots the precipitation on the x-axis and the temperature on the y-axis. Dots are colored based on temperature and size is based on precipitation. The current year is denoted with a star. Long-term averages are denoted by the dashed lines.

In the statewide average, July ended up in the warm and dry quadrant, as the lack of monsoon rains in the west outweighed the stormy conditions in the east. Overall, July 2023 was tied for the 21st warmest (0.8°F above the 1991-2020 average) and 35th driest (0.45" below average) July on record.

This chart shows the 3-month period of May-June-July in the Platte River drainage that covers most of northeastern Colorado. In this region, it was the wettest May-June-July period on record, beating the previous record set in 2015. This region averaged 11.45" over the 3-month period, nearly double the long-term average.

[view all quadrant charts](#)

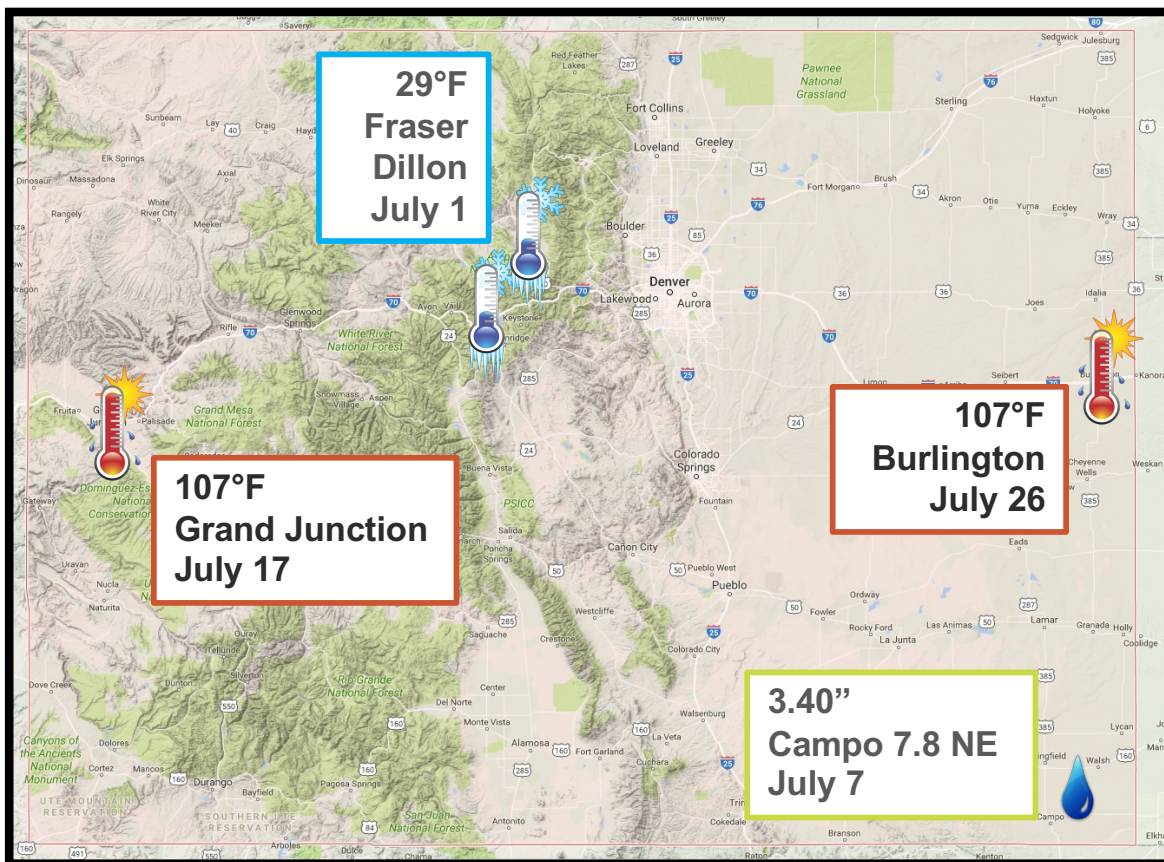


records tied and broken

	High Max	Low Max	High Min	Low Min	Precip	Snow
Daily	97/184	7/37	90/279	8/6	14/58	2/3
Monthly	8/3	2/1	5/5	0/0	0/2	0/0
All-time	7/2	0/0	2/3	0/0	0/0	0/0

Tied/**Broken**, from NOAA National Centers for Environmental Information

state extremes

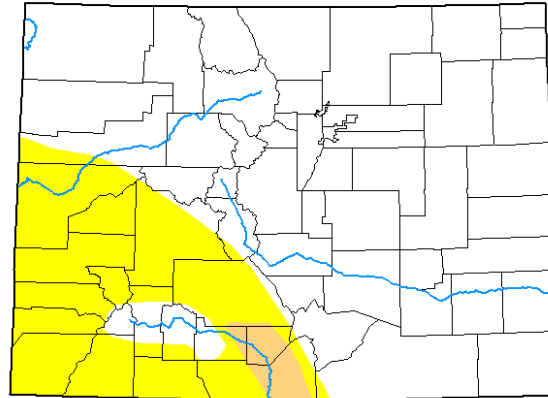


drought

The month of July began with no drought or dry conditions depicted across the state. At the end of the month, short-term dry conditions resulted in the introduction of D0 and D1 in southwest CO and the San Luis Valley.

U.S. Drought Monitor Colorado

July 25, 2023
(Released Thursday, Jul. 27, 2023)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	75.57	24.43	1.81	0.00	0.00	0.00
Last Week 07-18-2023	79.95	20.05	0.00	0.00	0.00	0.00
3 Months Ago 04-25-2023	44.07	55.93	44.01	14.50	4.52	0.43
Start of Calendar Year 01-01-2023	39.97	60.03	33.83	12.28	1.91	0.01
Start of Water Year 09-27-2022	15.46	84.54	45.65	15.47	3.73	0.57
One Year Ago 07-26-2022	2.78	97.22	79.49	37.00	4.95	0.00

Intensity:
 None (White) D2 Severe Drought (Orange)
 D0 Abnormally Dry (Yellow) D3 Extreme Drought (Red)
 D1 Moderate Drought (Light Orange) D4 Exceptional Drought (Dark Red)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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National Drought Mitigation Center



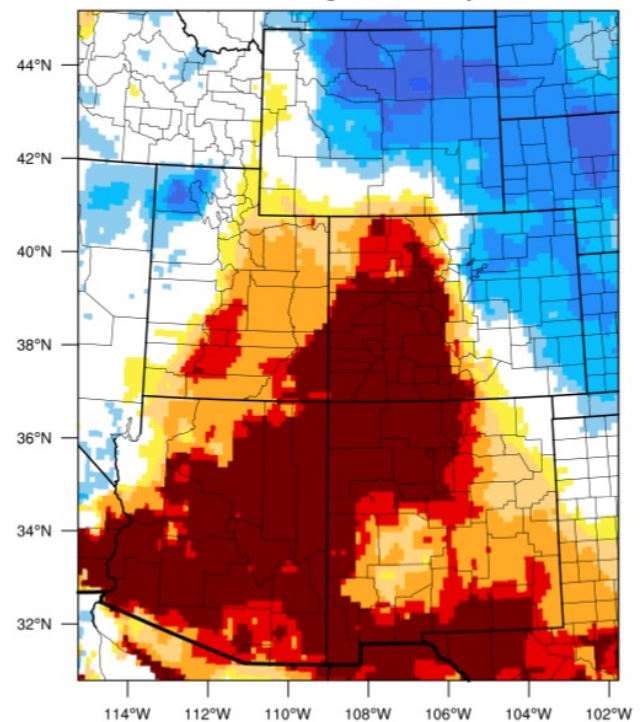
droughtmonitor.unl.edu

[Colorado Drought Update Page](#)

evaporative demand

Evaporative demand shows that the eastern part of the state is still experiencing lower evaporative losses, thanks to cooler and wetter conditions. Western Colorado has dried out with much above average temperatures, which as greatly increased evaporative demand. This results in drier soils and more stressed vegetation.

1-month EDDI categories for July 21, 2023



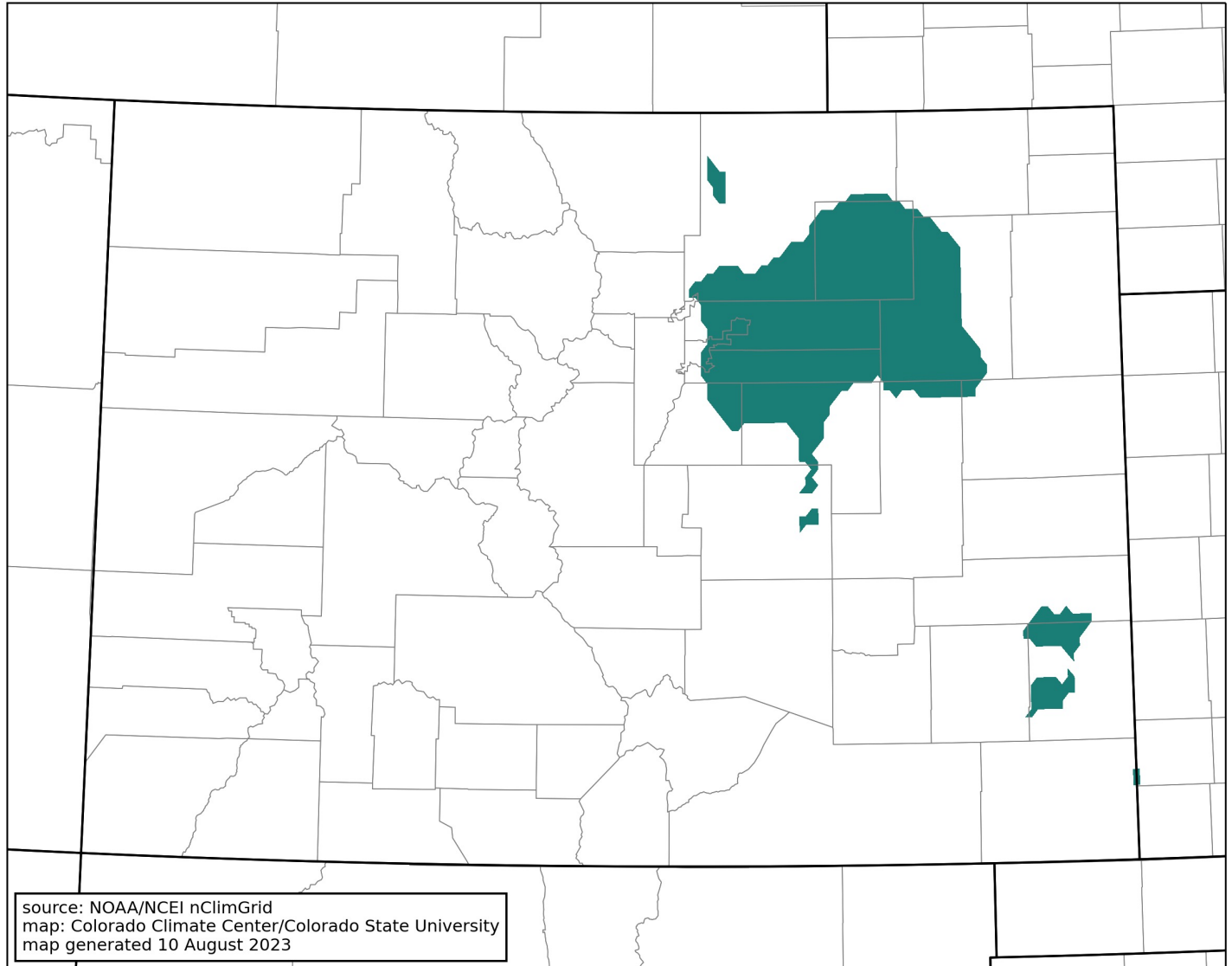
Drought categories: ED4, ED3, ED2, ED1, ED0
 Wetness categories: EW0, EW1, EW2, EW3, EW4
 100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%
 (EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Laboratory



significant events

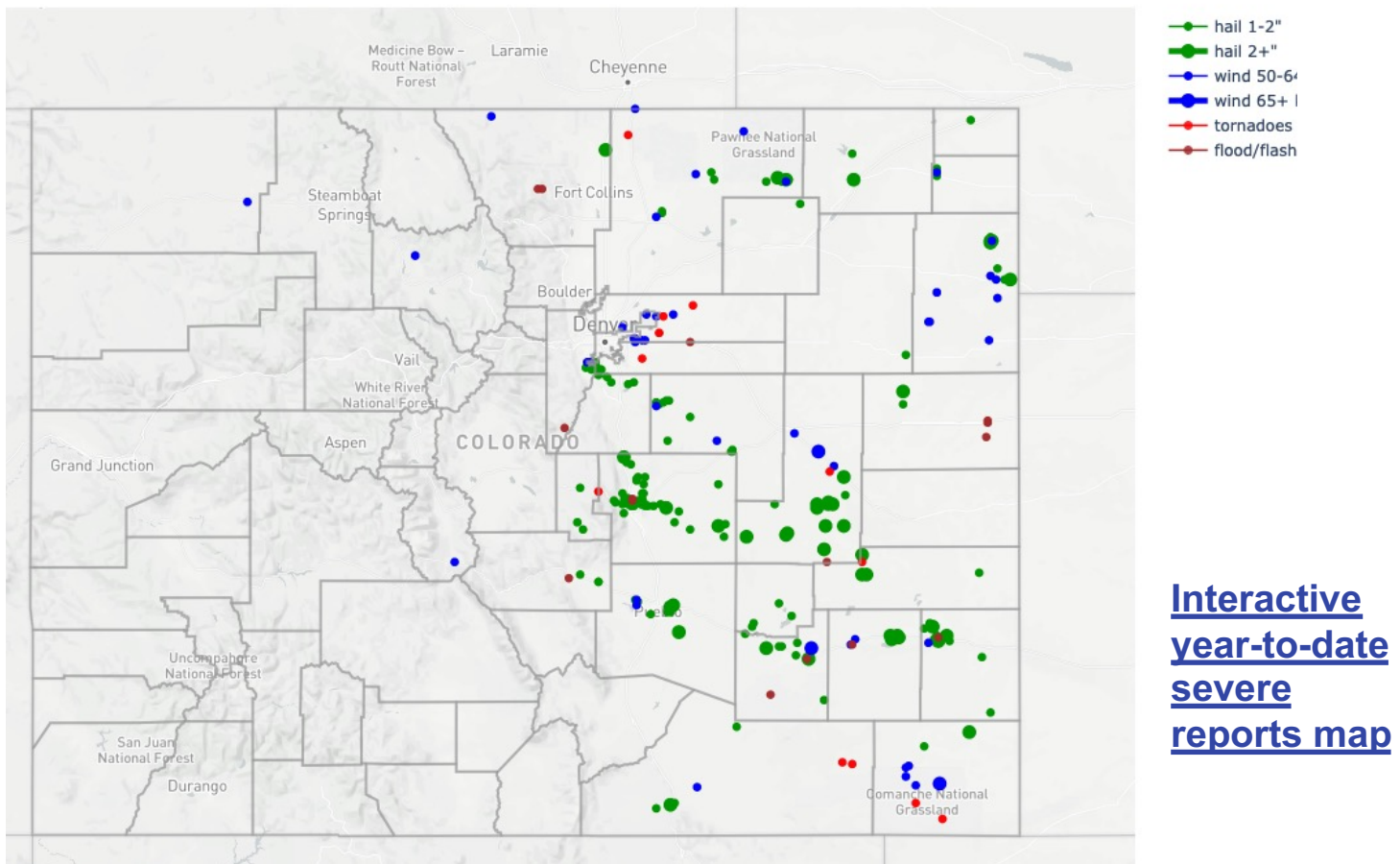
locations where May-June-July 2023 was the wettest 3-month period on record



The rainy conditions that started in May and June continued through July for much of the Eastern Plains. In fact, a large area in northeastern Colorado had its wettest 3-month period on record in May, June, and July 2023, shown by the areas shaded in green on the above map. Furthermore, some localized areas in southeastern Colorado, mainly in Prowers County, also recorded their wettest 3-month period during May-June-July.

significant events

Colorado PRELIMINARY severe thunderstorm and flood/flash flood reports, July 2023



July 2023 was another very active month for severe weather in Colorado, especially for large hail in the southeastern part of the state.

There were 197 preliminary reports of hail at least 1" in diameter, which if confirmed, would be the the 3rd most in a single month, behind only last month (June 2023) and June 2018.

There were also 46 preliminary reports of hail at least 2" in diameter, which would trail only last month (June 2023) for the most in a month.

Hail records are not very consistent over time (largely because as population grows, more people are around to witness the hail), but keeping that in mind, 2023 will almost certainly go down as the year with the most severe hail reports on record for Colorado. There have already been over 3 times as many severe hail reports in 2023 as there were in all of 2022!

CCC in the news

- ❑ [What research is being done on wildfires at CSU?](#)
 - CSU Source, July 31, 2023, Becky Bolinger
- ❑ [Q&A with Becky Bolinger | Colorado's assistant state climatologist reflects on a dozen years of service](#)
 - Colorado Politics, July 26, 2023, Becky Bolinger
- ❑ [Colorado's fingerprints on the NDAA, water watchers optimistic | WHAT YOU NEED TO KNOW](#)
 - Colorado Politics, July 26, 2023, Peter Goble
- ❑ [Colorado poised for cool, wet fall after summer return to drought conditions, climatologist projects](#)
 - The Denver Gazette, July 25, 2023, Peter Goble
- ❑ [AI weather models show promise, but face the challenge of unprecedented weather conditions](#)
 - Smart Water Magazine, July 14, 2023, Russ Schumacher
- ❑ [118-degree heat record in Bennett isn't valid](#)
 - 9News, July 11, 2023, Becky Bolinger
- ❑ [Colorado is drought-free for the first time since 2019. Will it last?](#)
 - Summit Daily, July 10, 2023, Becky Bolinger
- ❑ [State drought-free, but for how long? Only short breaks over past 22 years, followed by longer, drier dry periods](#)
 - Aspen Times, July 8, 2023, Becky Bolinger
- ❑ [Colorado is drought-free for only the second time in 23 years](#)
 - KOAA, July 7, 2023, Russ Schumacher

