

Colorado Climate Update

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Water Conditions Monitoring
Committee

January 22, 2026



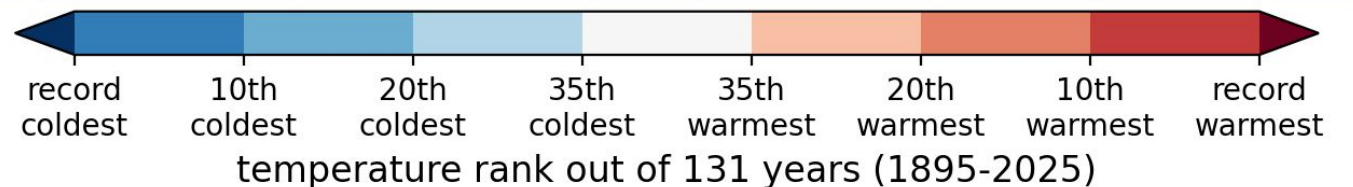
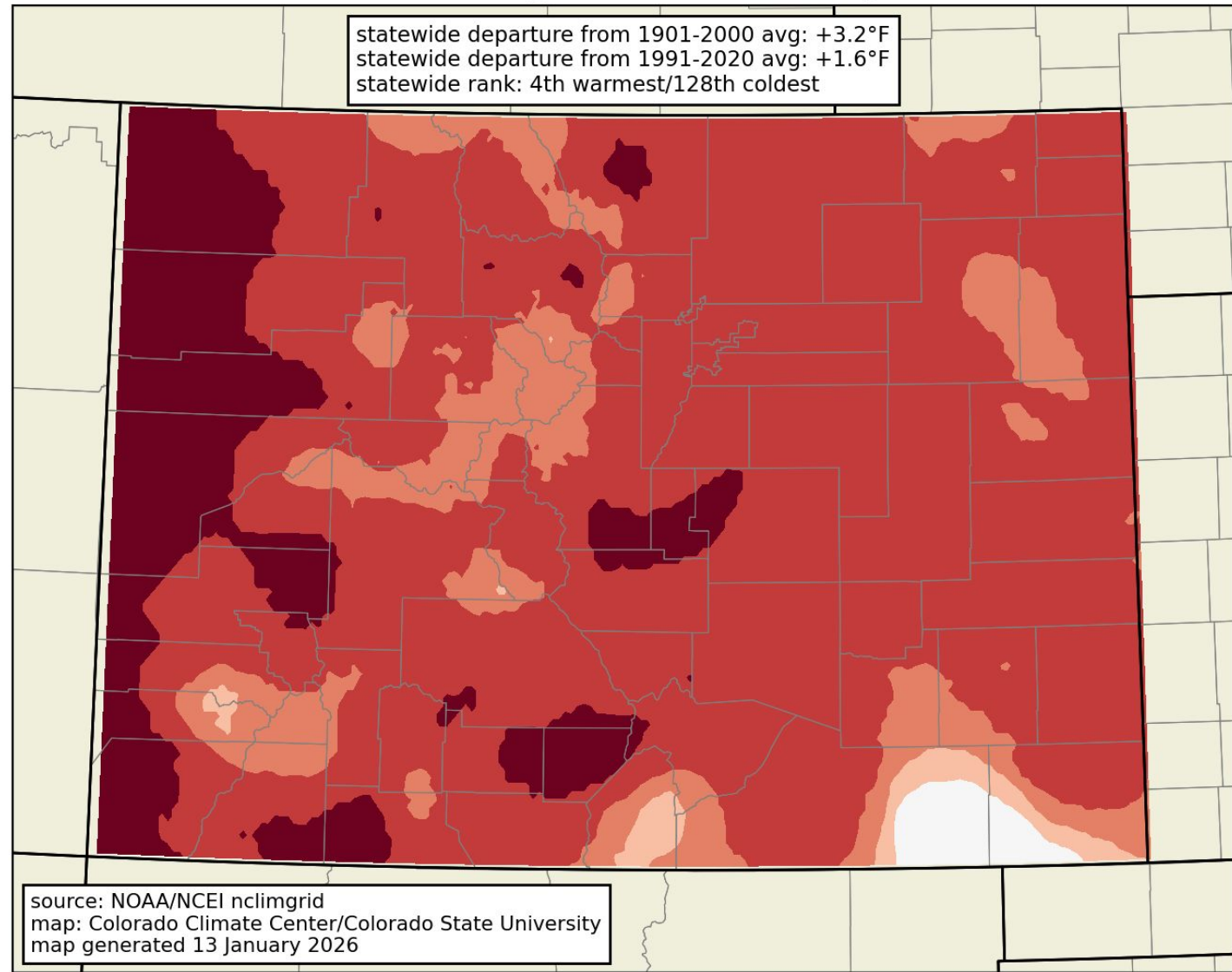
ATMOSPHERIC SCIENCE
COLORADO STATE UNIVERSITY

The numbers are in...

2025 was the 4th warmest year on record for Colorado (behind only 1934, 2012, and 2017).

Record warmest for much of the West Slope

average temperature rank
12 months ending December 2025 (Jan-Dec)

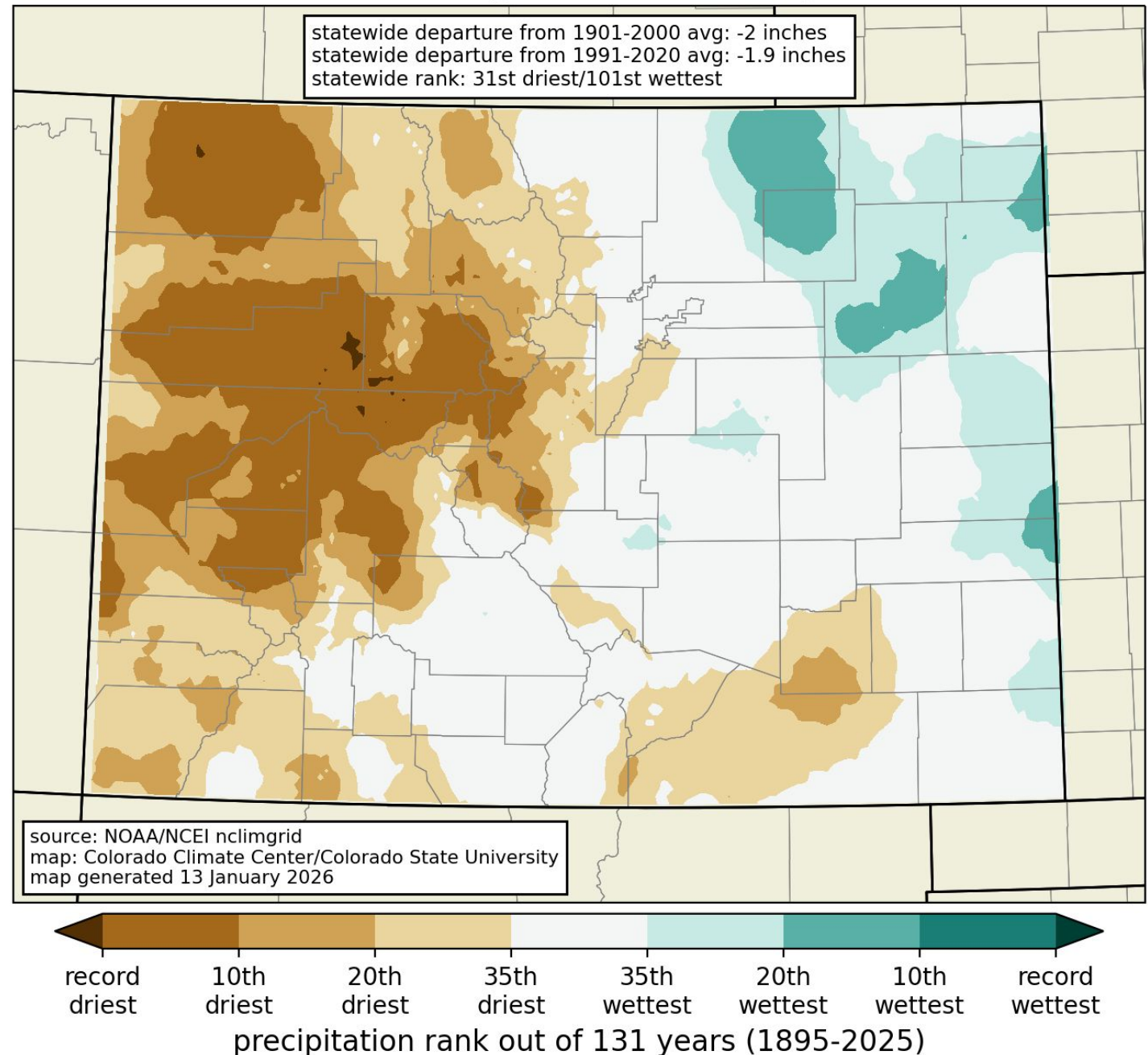


The numbers are in...

2025 was the 31st driest year on record statewide.

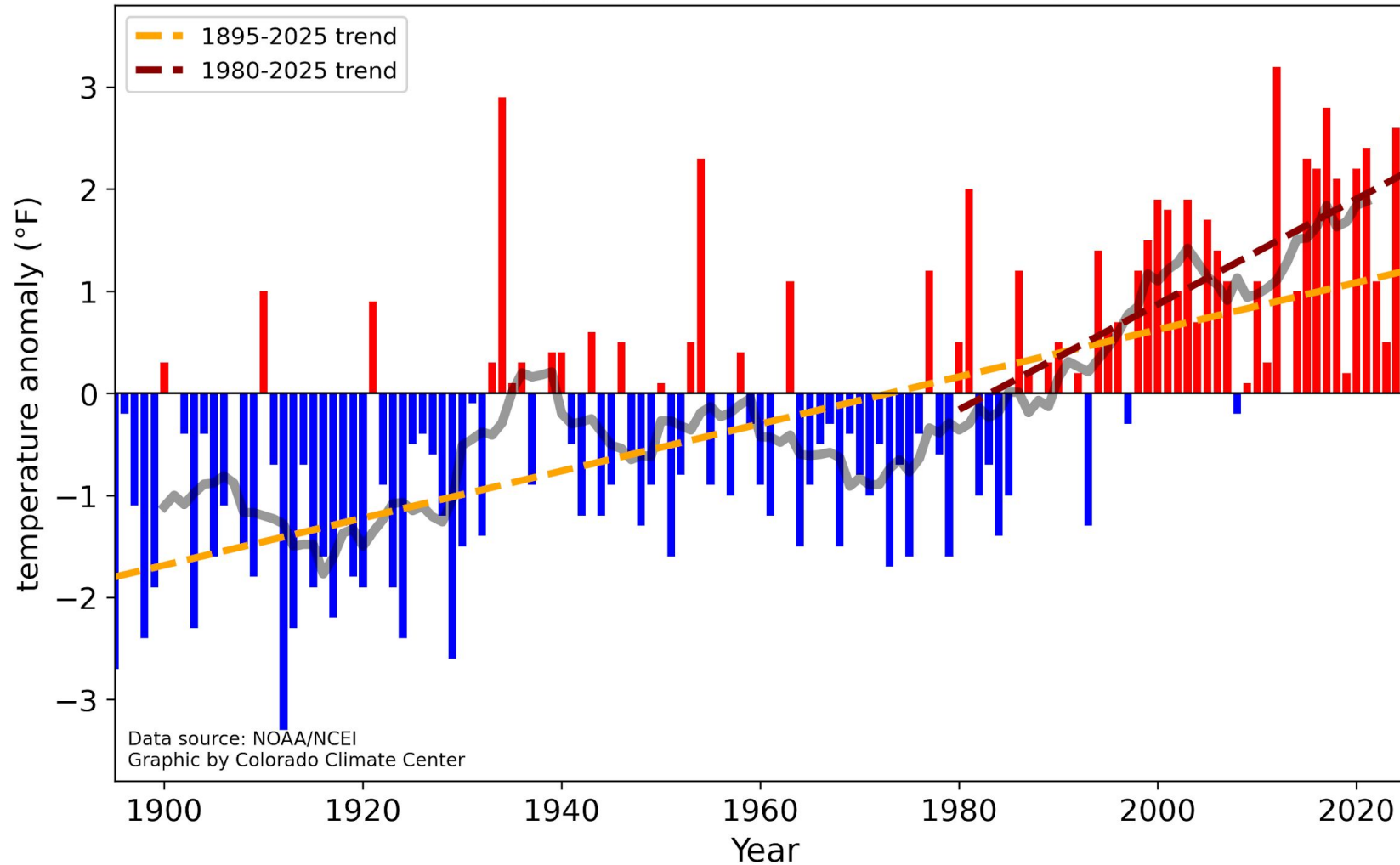
Top-10 driest for some locations west of the Divide, top-20 wettest for portions of the Northeast Plains

precipitation rank 12 months ending December 2025 (Jan-Dec)



2025 continued a frightening pattern of the last decade or so... 8 of CO's 10 warmest years on record have occurred since 2012.

Colorado statewide annual temperature anomaly (°F), with respect to 1971-2000 average



Water Year 2026 so far

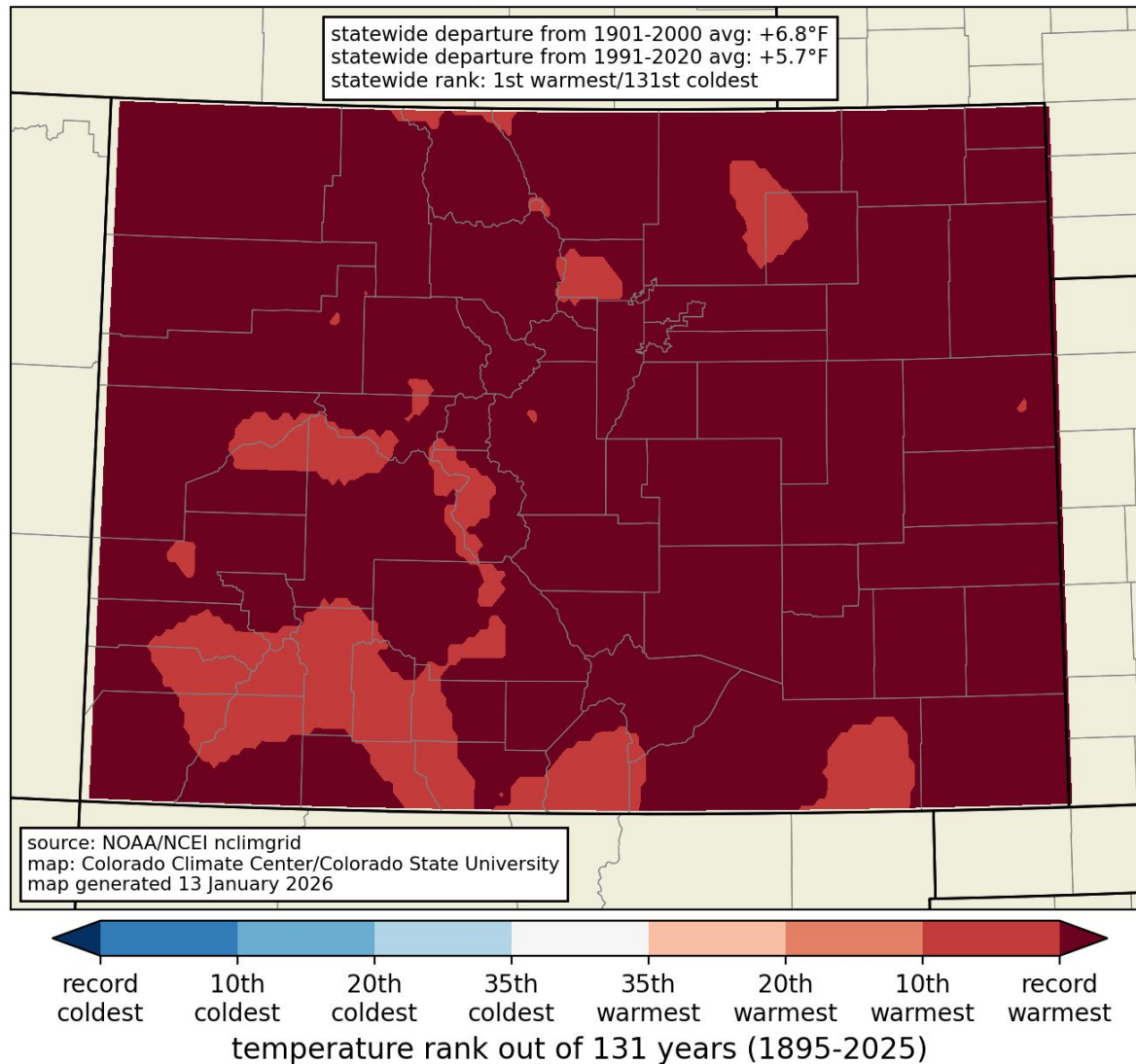
Temperature, precipitation, and more



Big Thompson Headwaters on Dec 23
Courtesy of Henry Reges



average temperature rank
3 months ending December 2025 (Oct-Dec)



Month	T Rank (of 130 years)	Above, below, or near 20 th century avg?
Oct	11th warmest	much above
Nov	3 rd warmest	much above
Dec	1st warmest	record warm

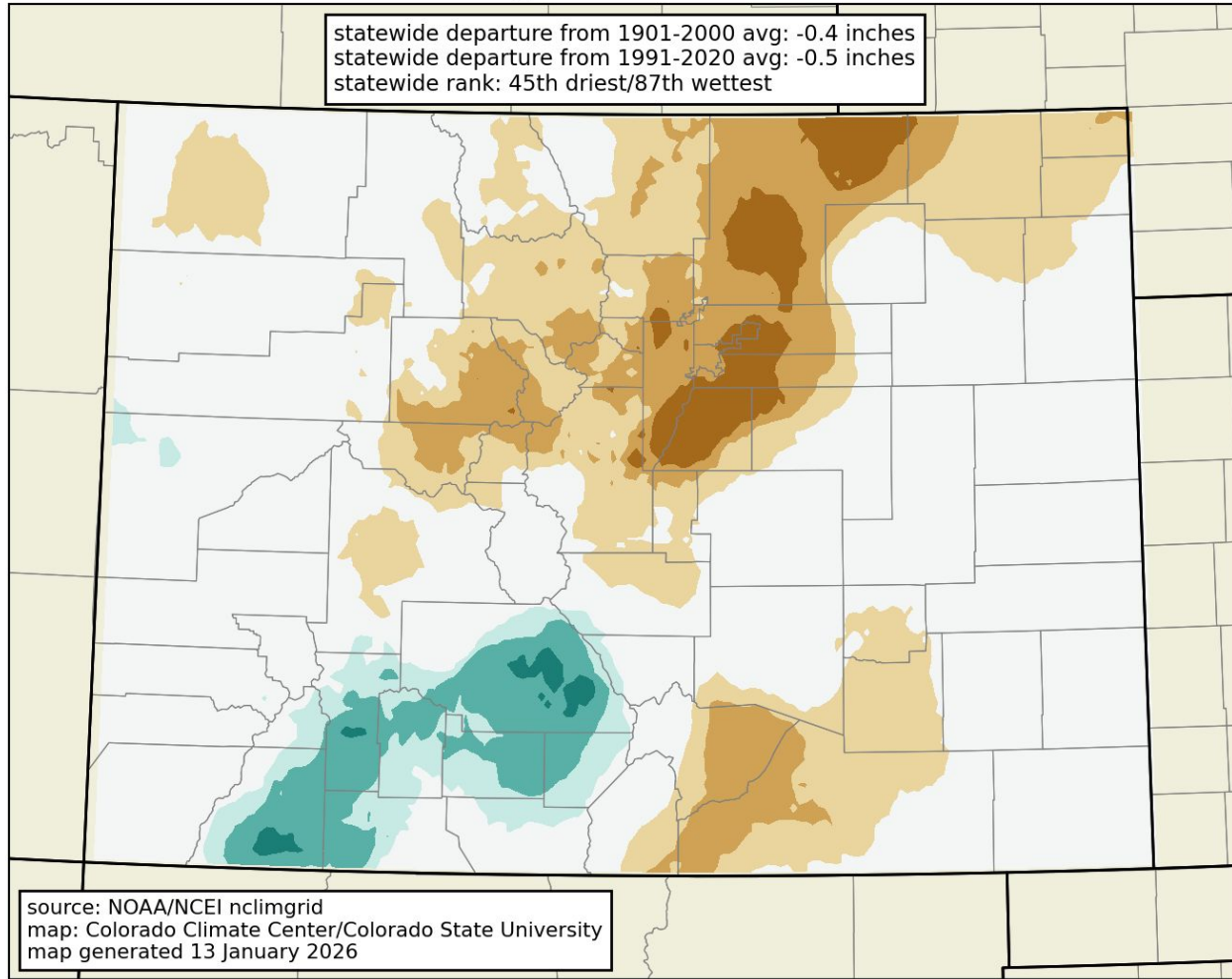
Record warmth in all corners of the state... San Juans were pretty much the only region that didn't see record warmth during this period

Statewide: 1st-warmest October-December on record.

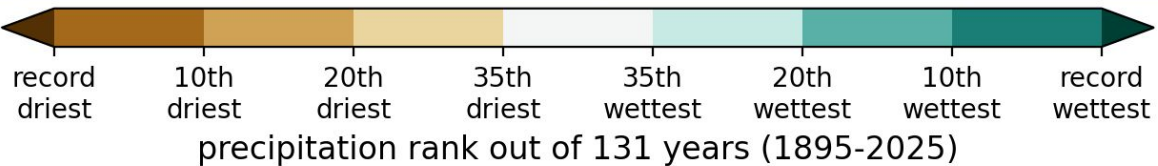


precipitation rank 3 months ending December 2025 (Oct-Dec)

statewide departure from 1901-2000 avg: -0.4 inches
statewide departure from 1991-2020 avg: -0.5 inches
statewide rank: 45th driest/87th wettest



source: NOAA/NCEI nclimgrid
map: Colorado Climate Center/Colorado State University
map generated 13 January 2026



Statewide: 45th driest October-December on record

Month	P Rank (of 130 years)	Above, below, or near 20 th century avg?
Oct	46 th wettest	near normal
Nov	42 nd driest	below
Dec	34 th driest	below

Drier than averages in most of north-central CO (record-driest for some); top 20-ish wet for parts of the San Juans (recall the October floods)

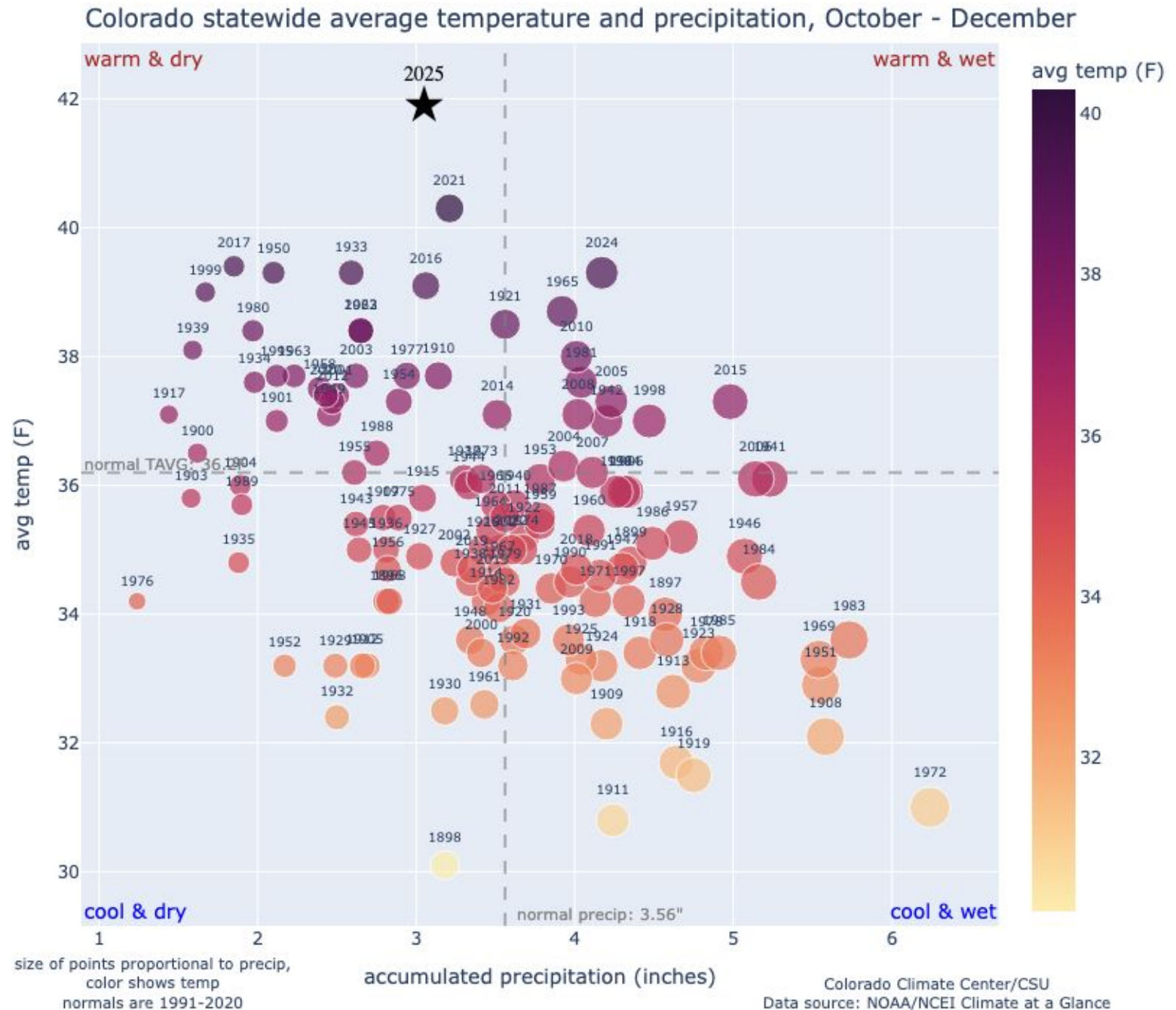


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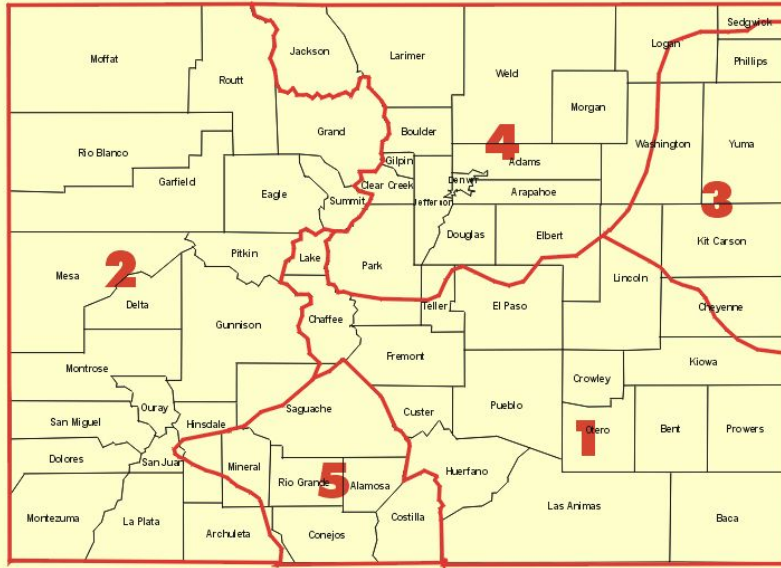
Quadrant chart: WY 2026

Record warmth; drier than
average too

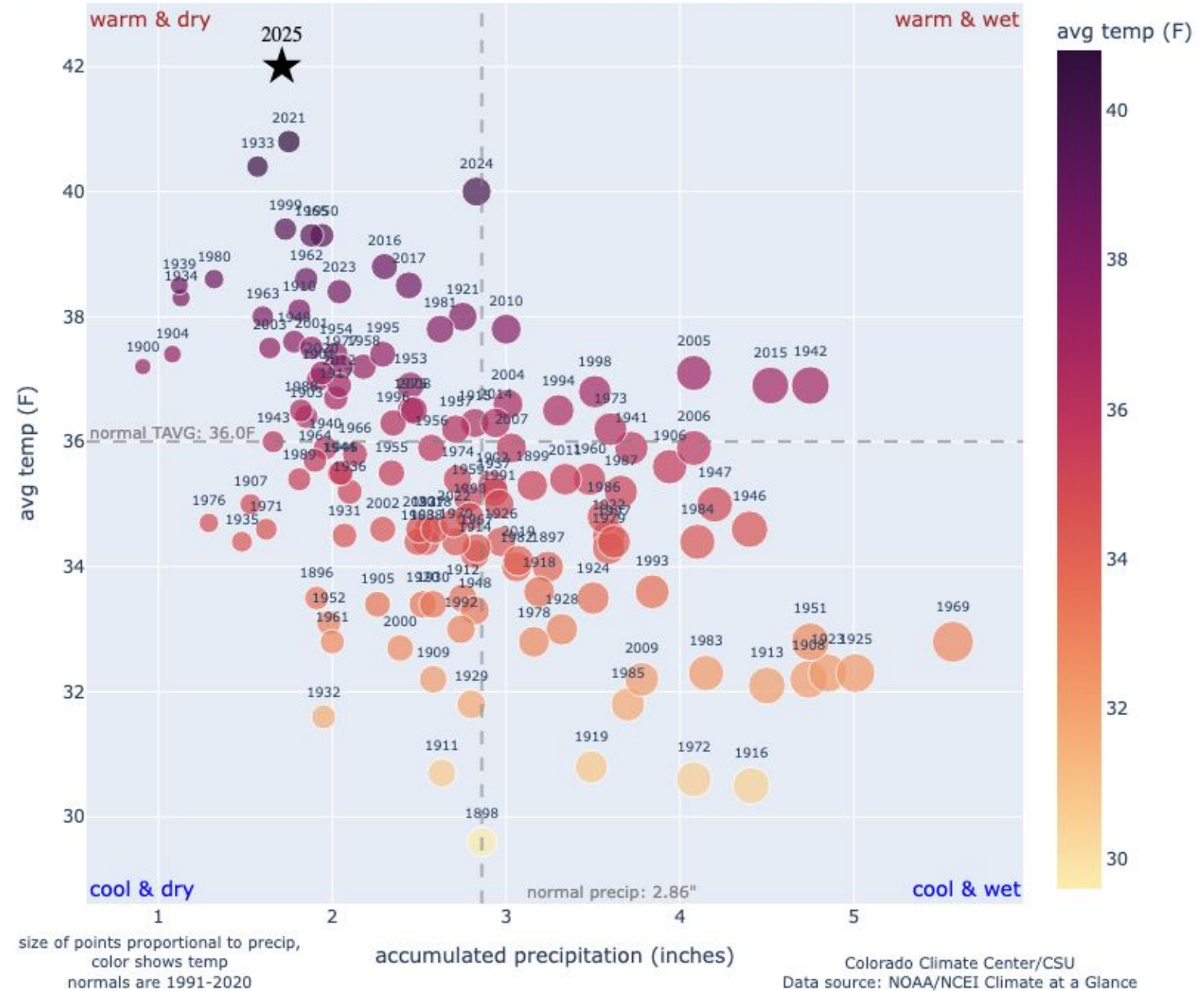


Quadrant chart: WY 2026, Platte Drainage division

Similarly dry to 1999, 2021

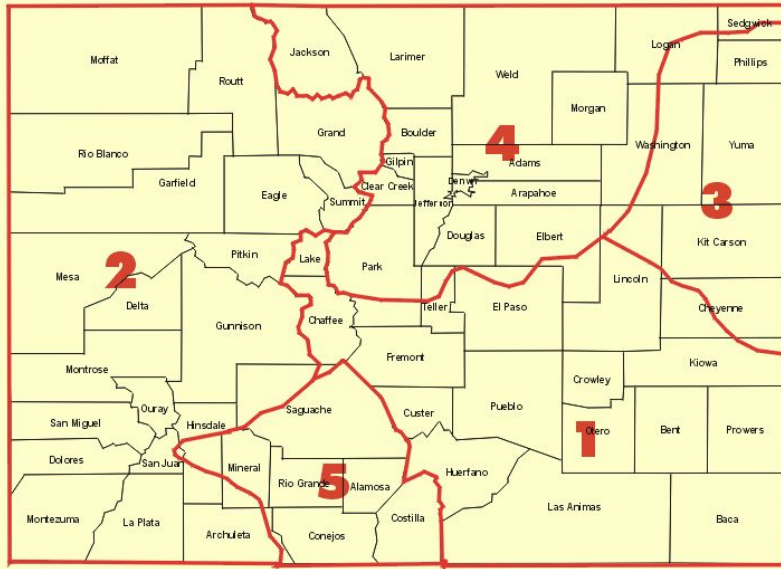


Colorado CD4 (Platte drainage) average temperature and precipitation, October - December

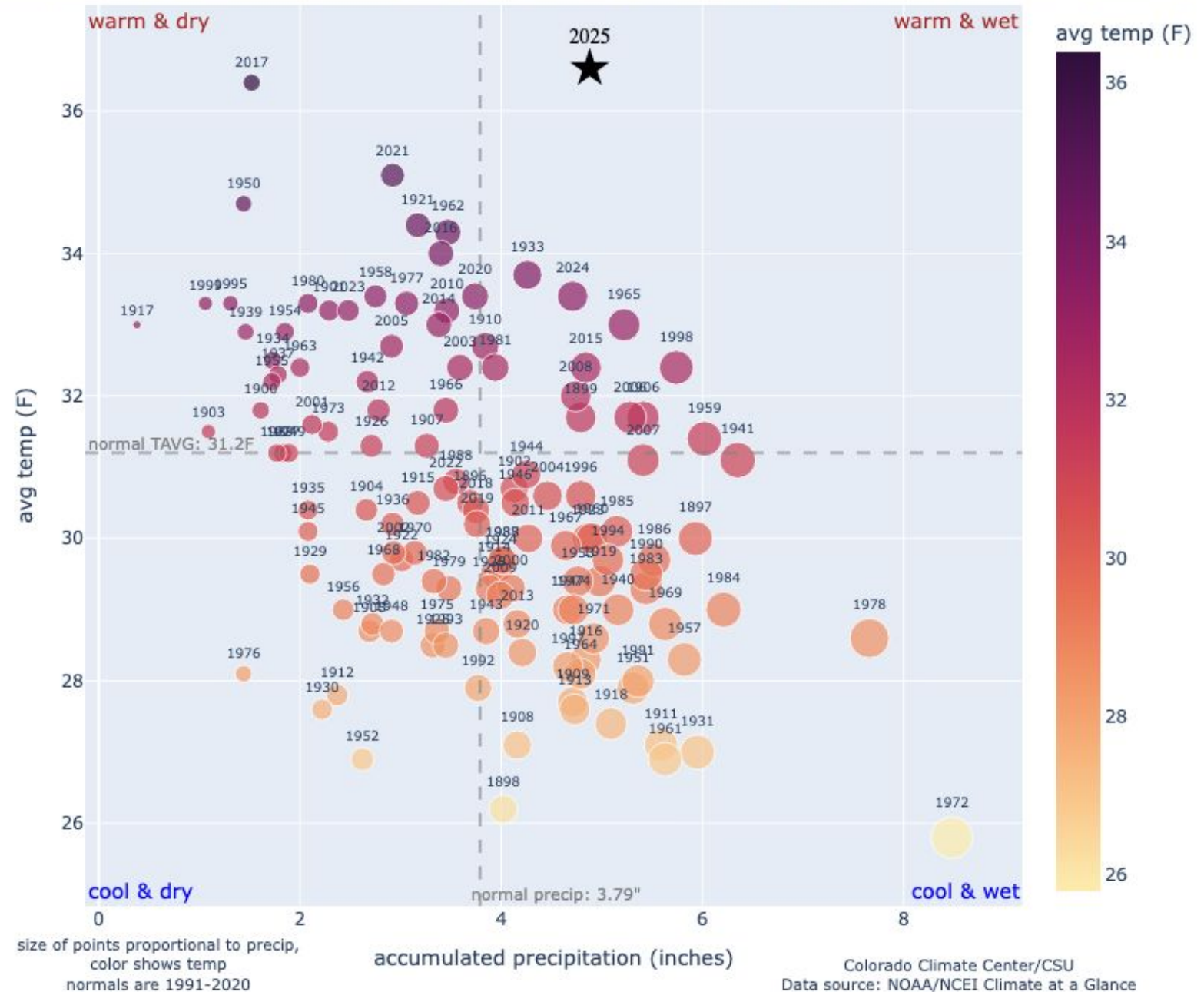


Quadrant chart: WY 2026, Rio Grande Drainage division

SW CO still running above average thanks to Oct rainstorms



Colorado CD5 (Rio Grande drainage) average temperature and precipitation, October - December



December 2025 and January so far



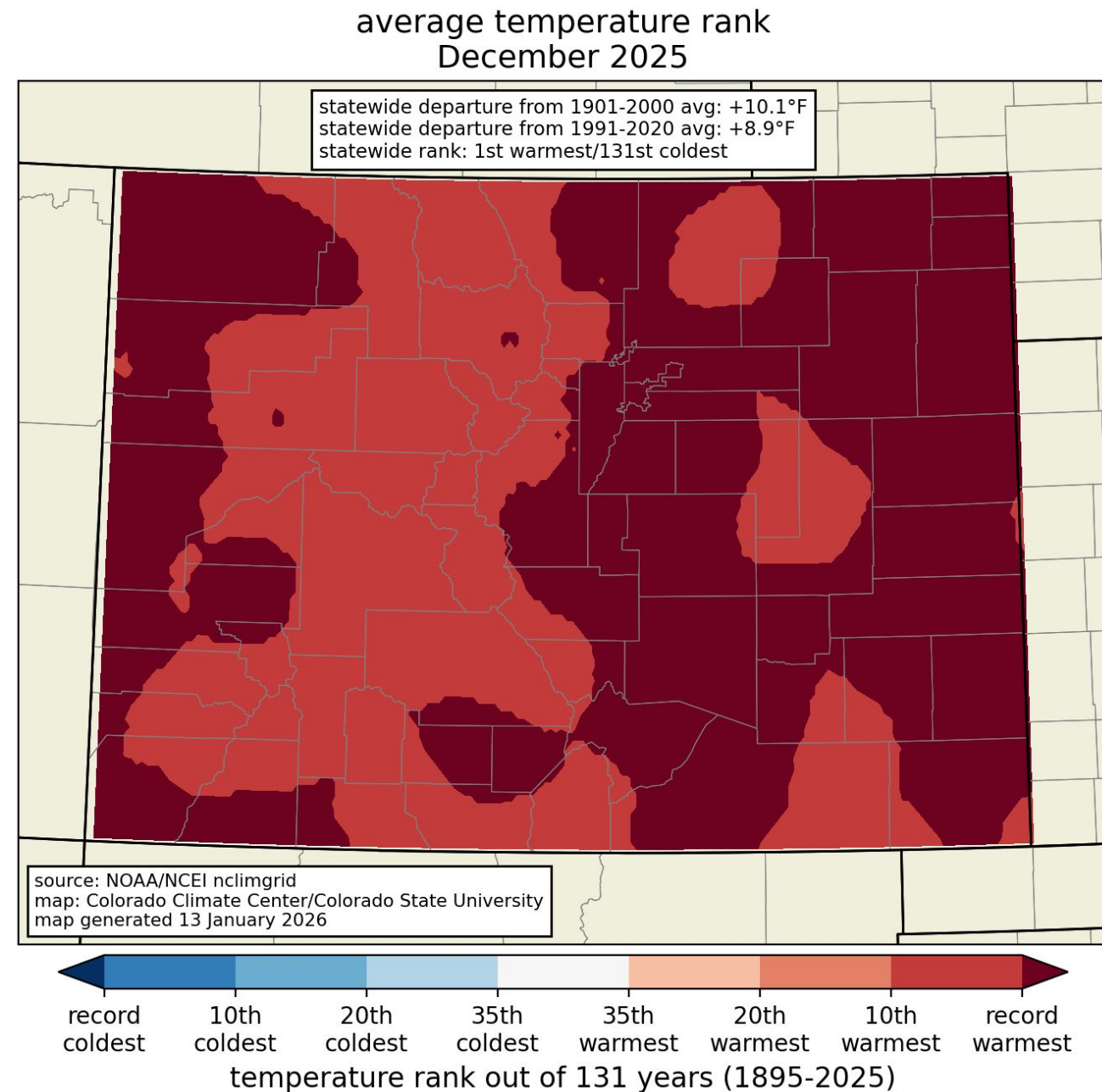
Small grass fire near the CSU Foothills campus
December 18



December temperature rankings

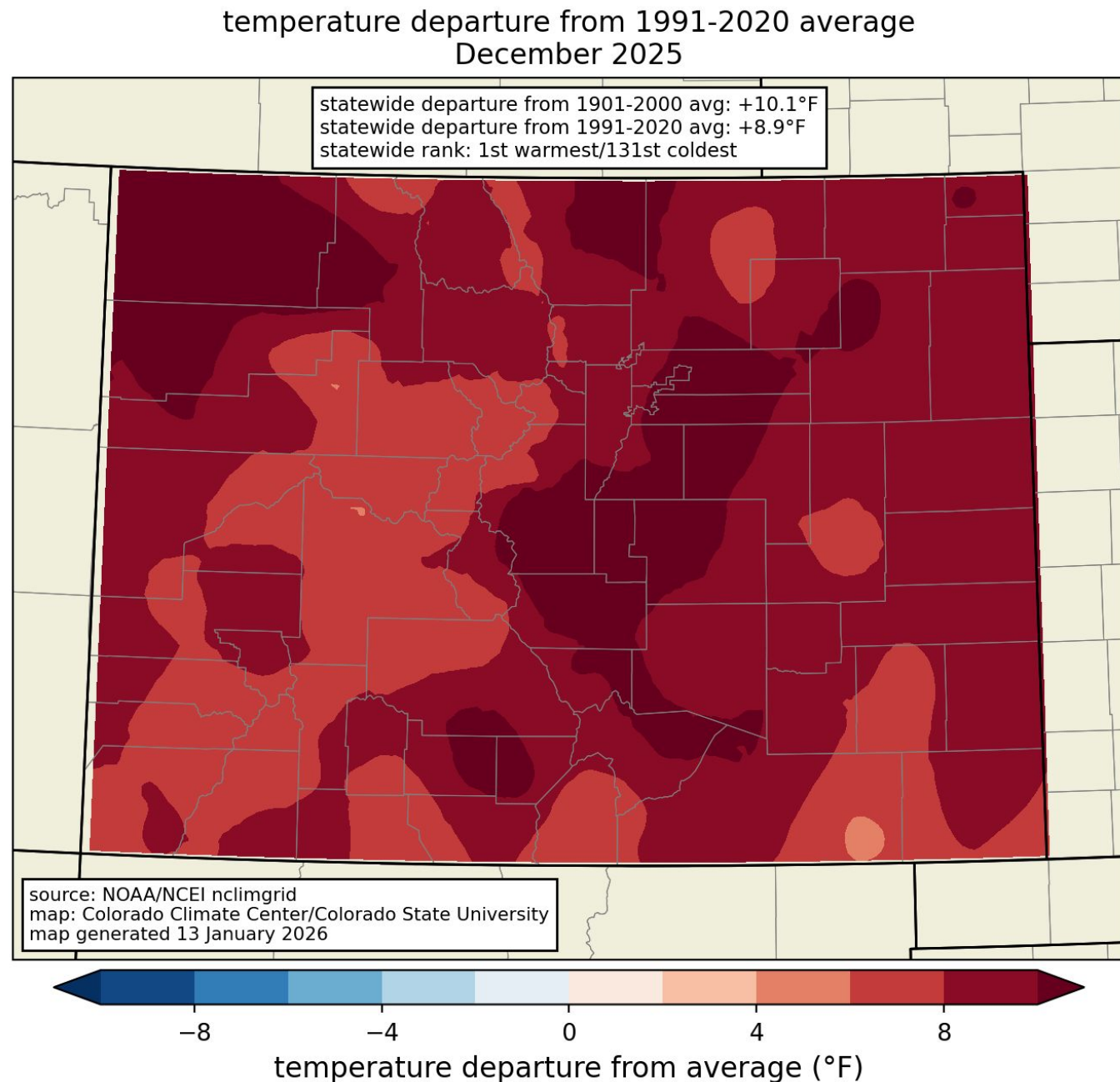
December 2025 was the warmest
December on record for Colorado.

Record warmest for most of the
West Slope and Eastern Plains, top
5-10 warmest elsewhere



"Disturbingly warm"

Temperatures were $>10^{\circ}\text{F}$ above average across portions of central and northwest Colorado.



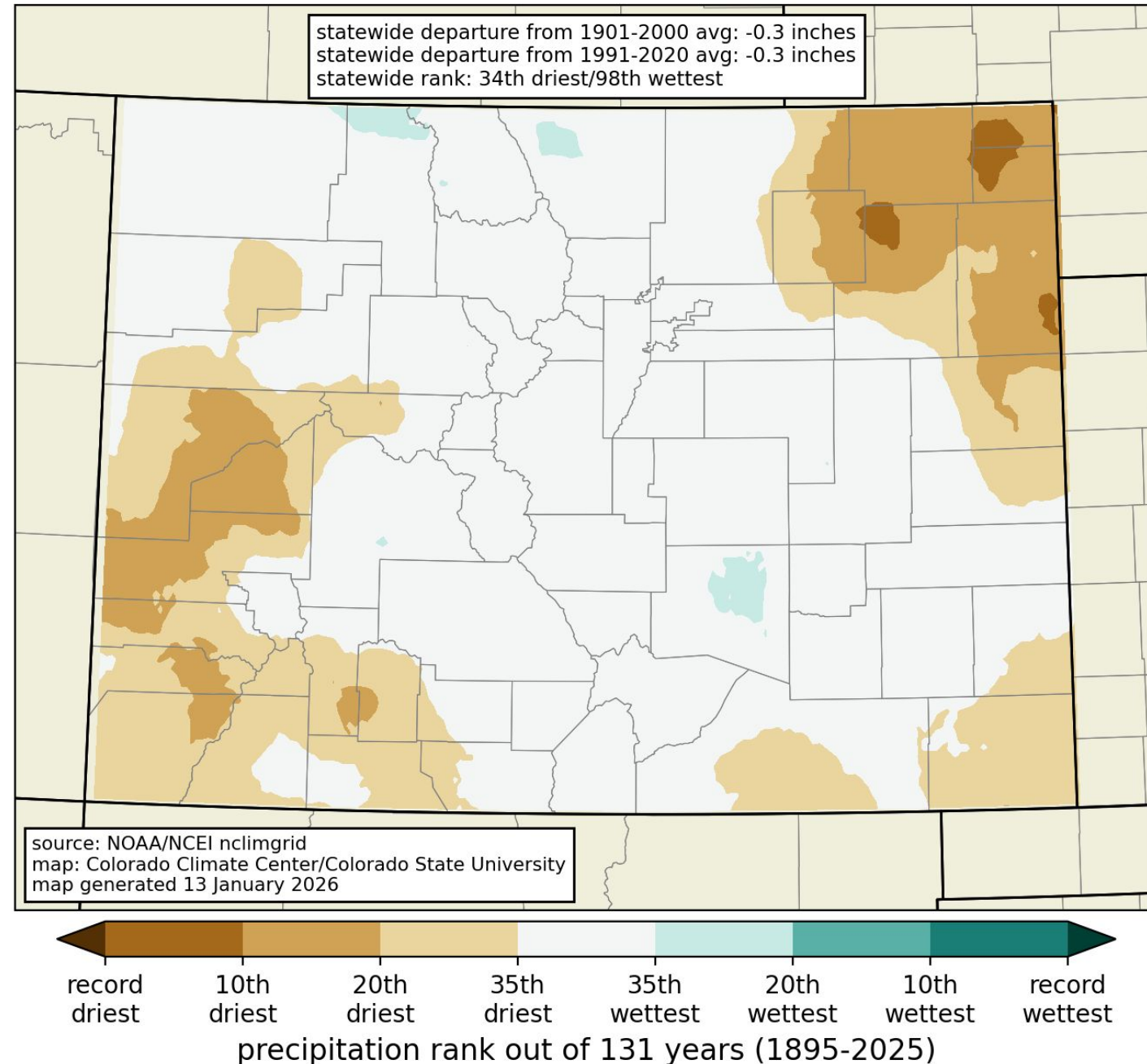
December precipitation rankings

34th driest December on record
statewide

Notable dryness across West Slope,
Southwest CO and Northwest CO

Practically no precipitation fell in
Dec in the northwest corner

precipitation rank
December 2025



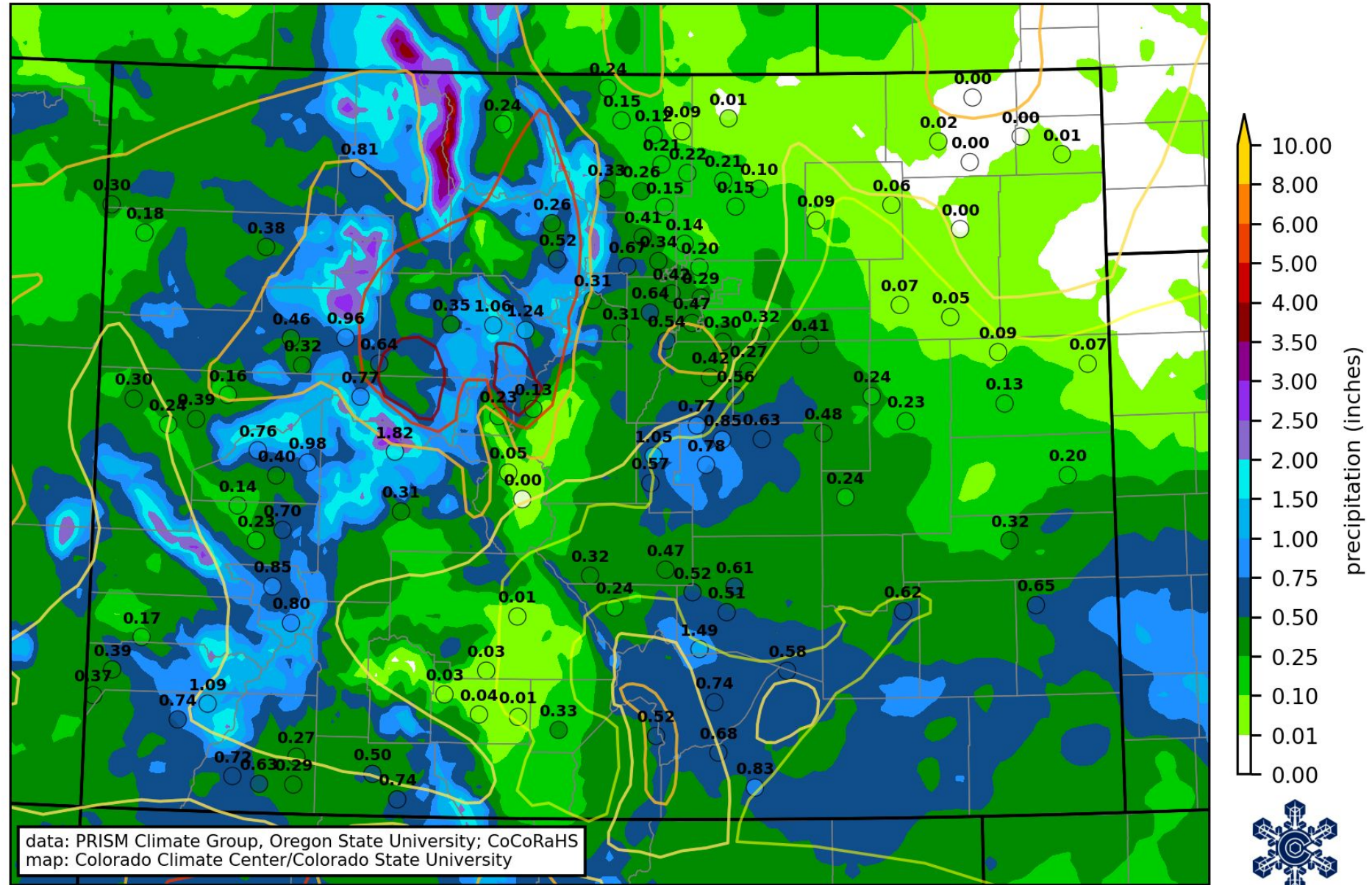
January precipitation
through Wednesday

There has been
some mountain
snow...

NE Colorado has
continued to stay dry

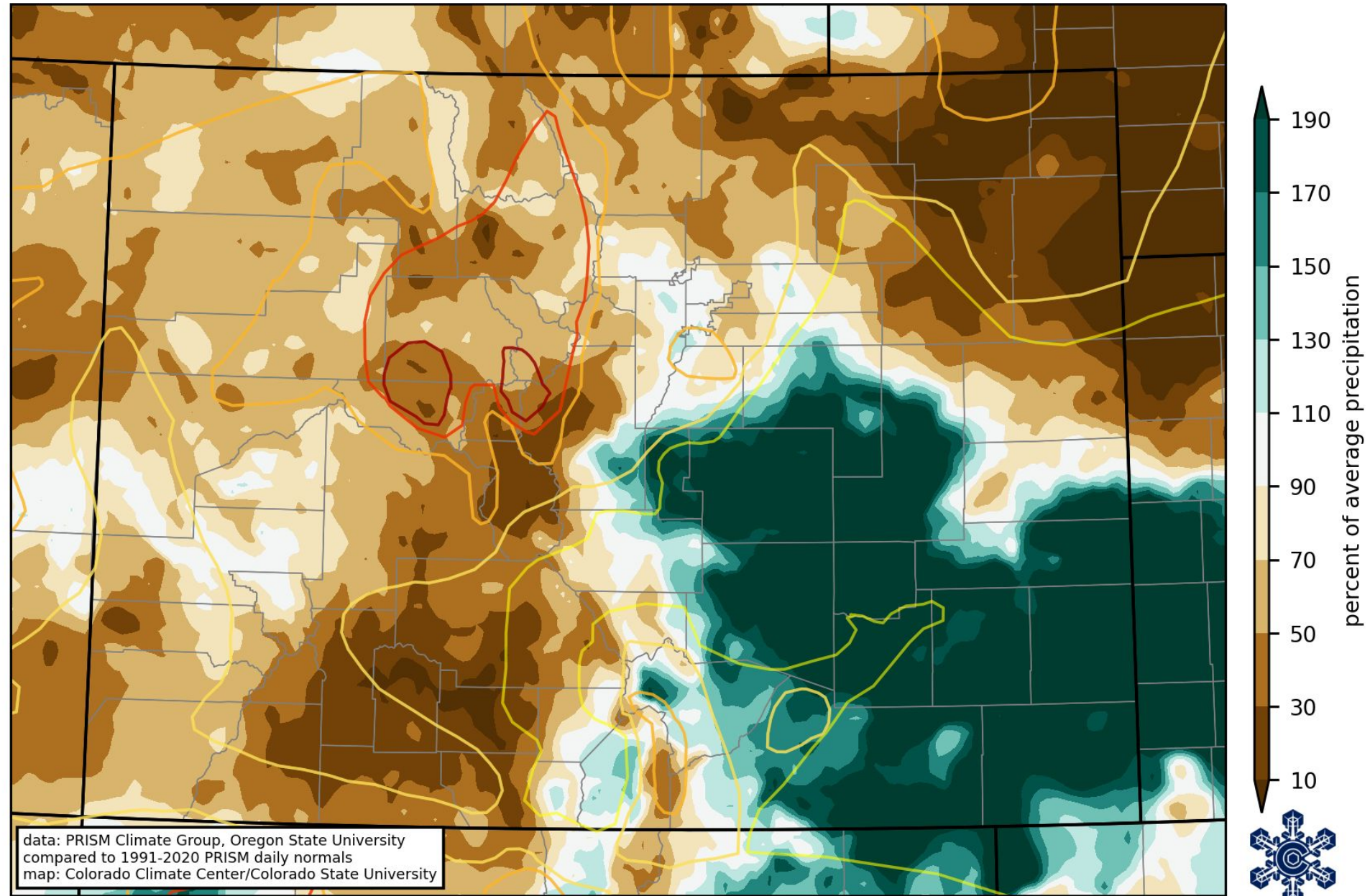
PRISM and CoCoRaHS month-to-date precipitation, US Drought Monitor

through 6:00am MDT Wed 21 January 2026



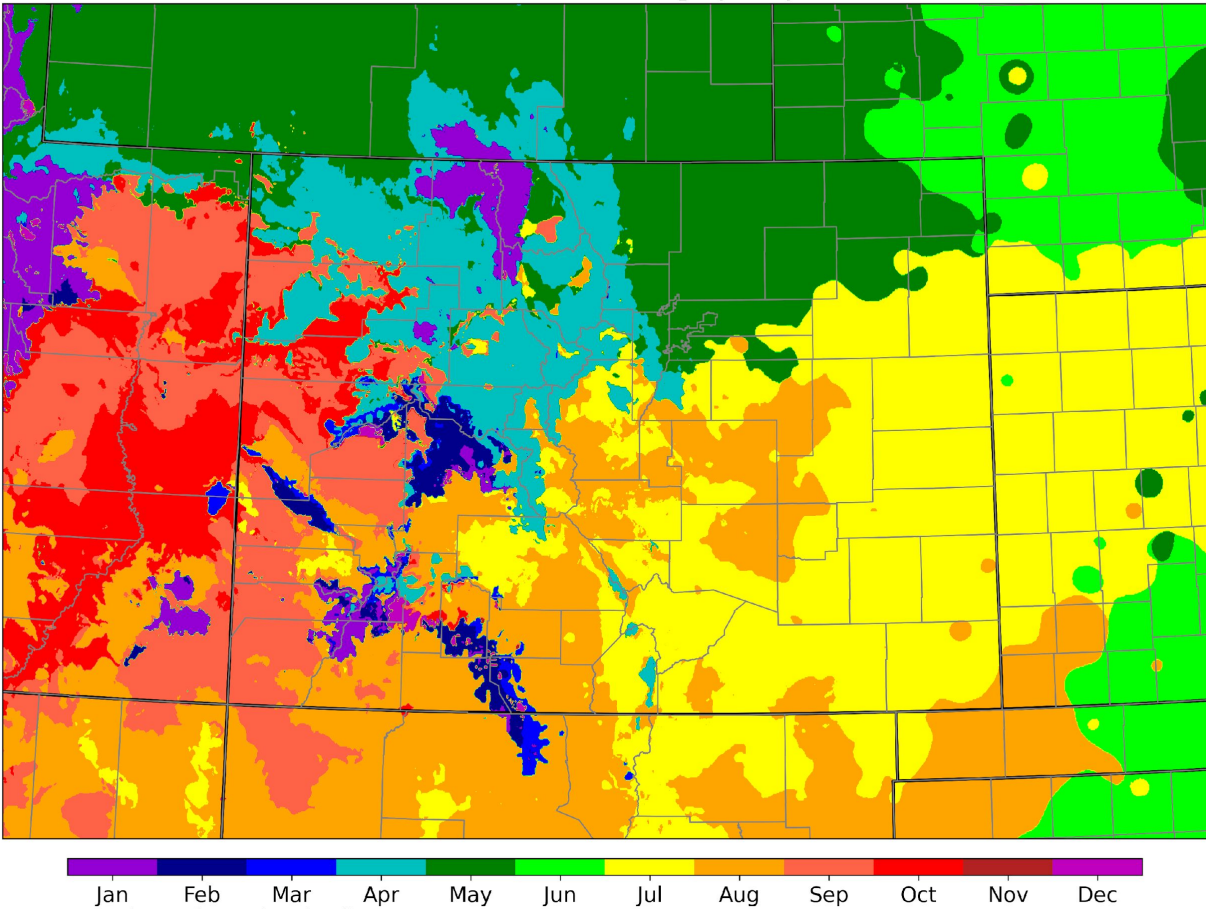
Percent of normal
precipitation for
January so far

Below-average
everywhere except
for southeast
Colorado, which saw
a nice shot of snow
earlier this month
(upwards of ~10")



January precipitation is important for many of the mountain areas, especially the Park Range.

month of maximum average precipitation



PRISM proportion of annual average precipitation in this month: January

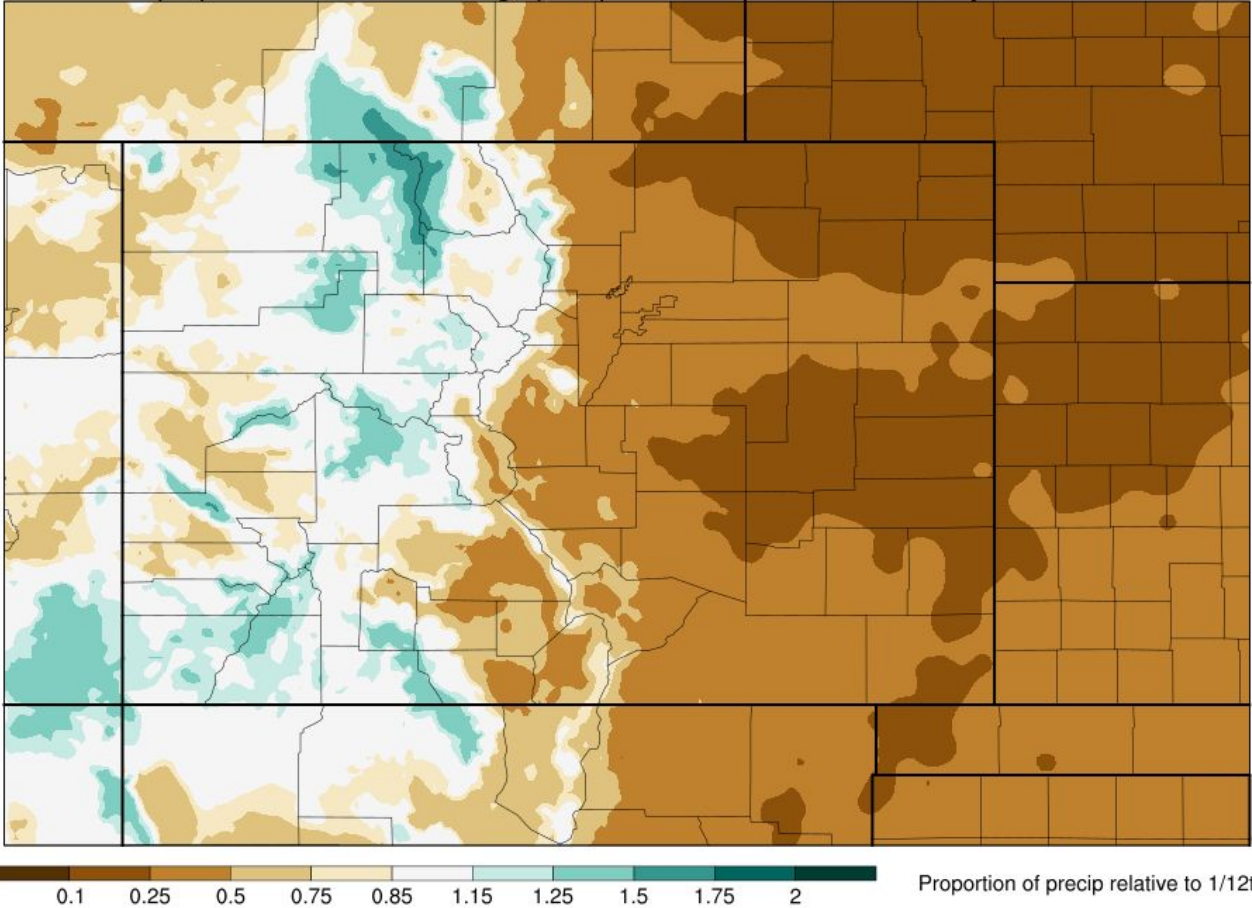


Figure: Russ Schumacher/Colorado Climate Center
Data: PRISM climate group (prism.oregonstate.edu), 1991-2020 normals

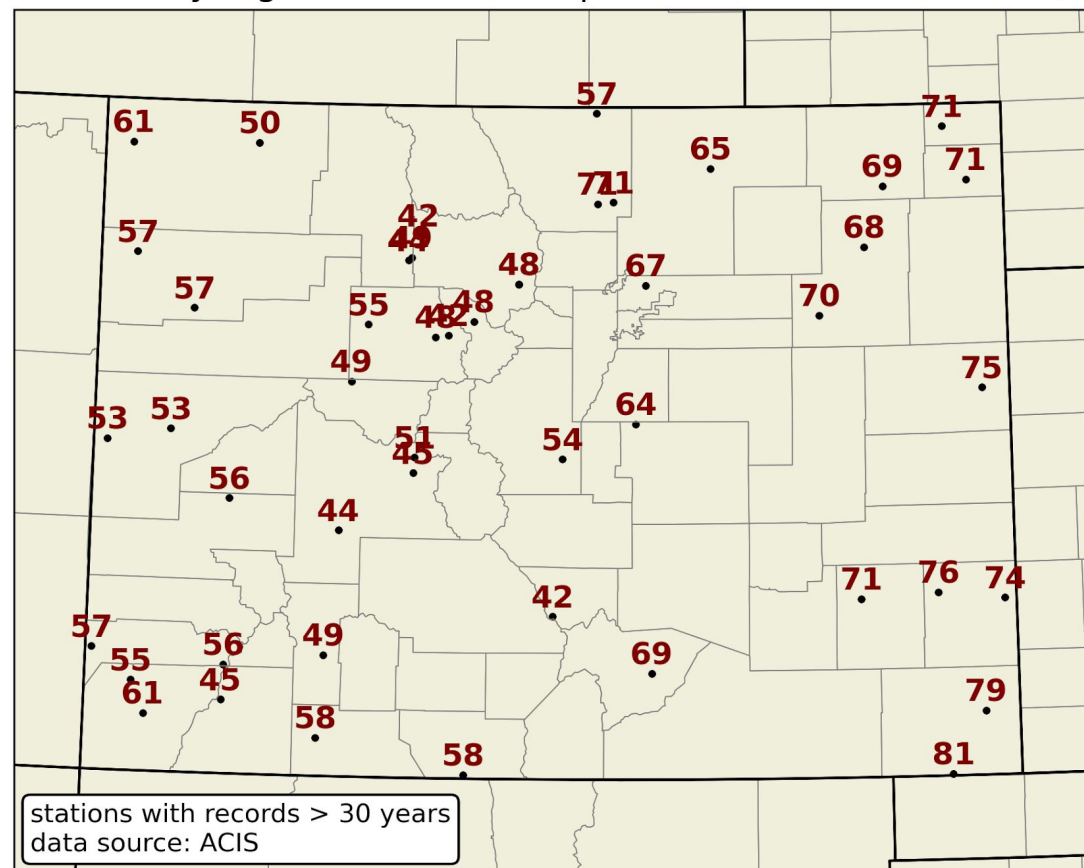
data: 1991-2020 normals, PRISM Climate Group, Oregon State University, <http://prism.oregonstate.edu>
map: Russ Schumacher/Colorado Climate Center/Colorado State University



Remarkable warmth

Over 1000 daily max and daily min temperature records broken in December

record daily high maximum temperatures for 2025-12-12 (°F)



STATION RECORDS (PREVIOUS)		
AKRON 4 E:	68	(67; 2014)
BIG HORN COLORADO:	58	(53; 2004)
BLUE MESA LAKE:	44	(44; 2017)
BRIGGSDALE:	65	(62; 1980)
BRIGHTON 3 SE:	67	(67; 2004)
BUFFALO PARK:	42	(42; 2014)
BURLINGTON:	75	(72; 2004)
CAMPO 7 S:	81	(74; 2004)
COLUMBUS BASIN:	45	(45; 2017)
CORTEZ:	61	(60; 1950)
DEVIL MTN COLORADO:	58	(58; 2004)
DOWD JUNCTION COLORADO:	48	(47; 2004)
DOVE CREEK:	57	(56; 2017)
FRASER:	48	(43; 2014)
FRASER:	48	(55; 1937)
GRAND JUNCTION 6ESE:	53	(53; 1996)
GREAT DIVIDE COLORADO:	50	(49; 2014)
GYPSUM COLORADO:	55	(53; 2004)
HOLLY:	74	(73; 1948)
HOLYOKE:	71	(70; 1990)
HUNTER CREEK COLORADO:	57	(57; 2004)
LADORE COLORADO:	61	(57; 2004)
LAKE GEORGE 8 SW:	54	(54; 2004)
LAMAR:	76	(72; 1906)
LAS ANIMAS:	71	(71; 1906)
LEROI 5 WSW:	69	(67; 1990)
LINDON 5 WNW:	70	(69; 2004)
LITTLE DELORES COLORADO:	53	(52; 1995)
LOVELAND 2N:	71	(64; 2004)
LYNX PASS:	44	(44; 2014)
OLATHE:	56	(55; 1996)
PALMER LAKE:	64	(58; 2022)
PORCUPINE CREEK COLORADO:	49	(47; 2017)
RANGELY 1E:	57	(54; 1950)
SCOTCH CREEK:	56	(53; 2004)
SEDGWICK 5 S:	71	(62; 2014)
SOUTH COLONY:	42	(42; 2004)
SUMMIT RANCH:	48	(47; 2014)
TAYLOR PARK:	45	(45; 2004)
TAYLOR PARK COLORADO:	51	(51; 2004)
THE CROWN COLORADO:	49	(49; 2004)
UPPER RIO GRANDE:	49	(49; 2017)
VAIL:	42	(41; 2004)
VIRGINIA DALE 7 ENE:	57	(57; 2014)
WALSBURG 1 NW:	69	(68; 2014)
WALSH 1 W:	79	(75; 2004)
WATERDALE:	71	(71; 1921)
YELLOW JACKET:	55	(54; 2014)



Remarkable warmth

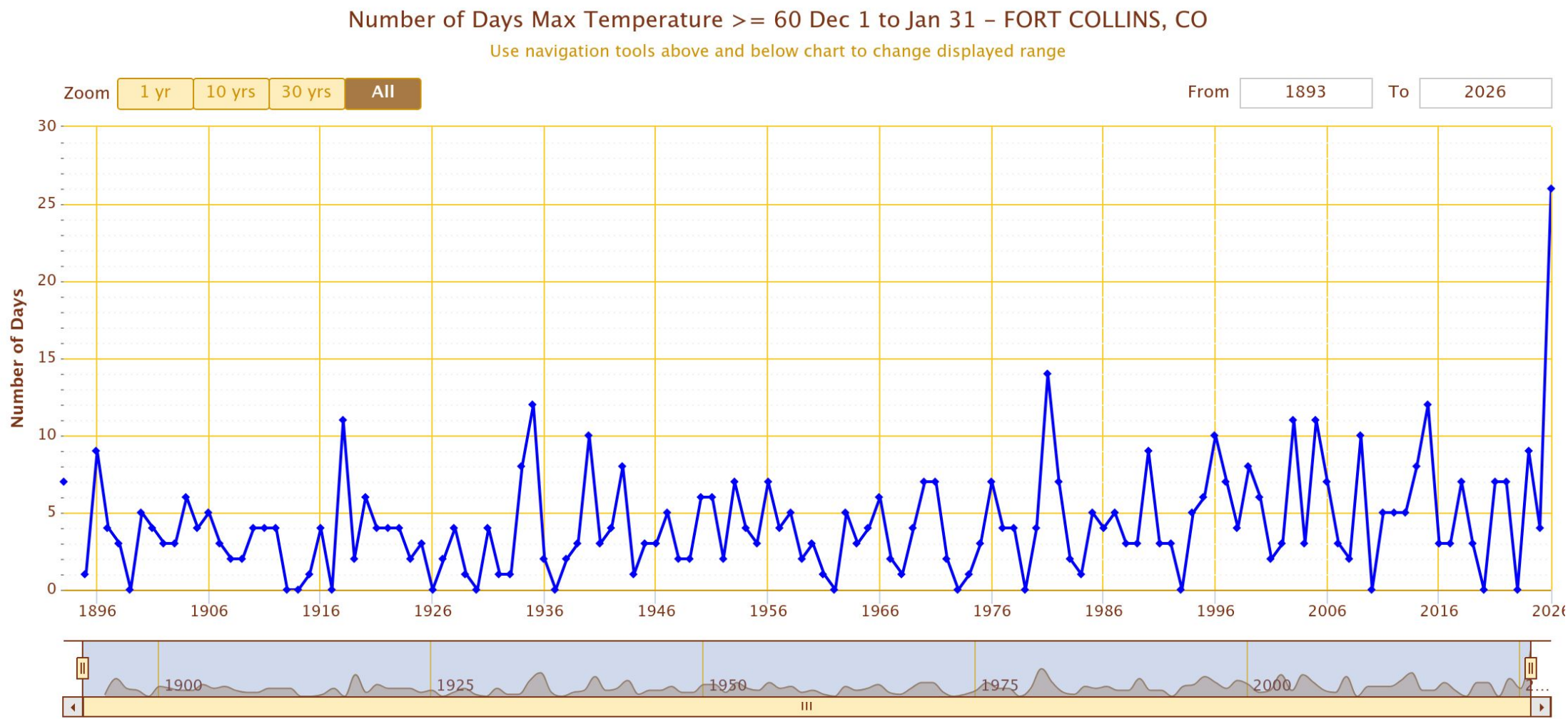
≥ 60°F December days:
record-setting for many

City	# days ≥ 60°F in Dec 2025	Previous record (year)
Akron	14	12 (1980, 1939)
Alamosa	3	2 (2021)
<u>Boulder</u>	18	17 (1980)
Colorado Springs	15	13 (1939)
Cortez	11	8 (1939)
<u>Denver</u>	18	15 (1980)
<u>Fort Collins</u>	17	13 (1980)
Grand Junction	3	2 (several)
<u>Greeley</u>	18	17 (1980)
<u>Trinidad</u>	19	18 (1980)



Remarkable warmth

26 \geq 60°F days in Fort Collins in Dec-Jan so far (previous record: 14 in 1981)!



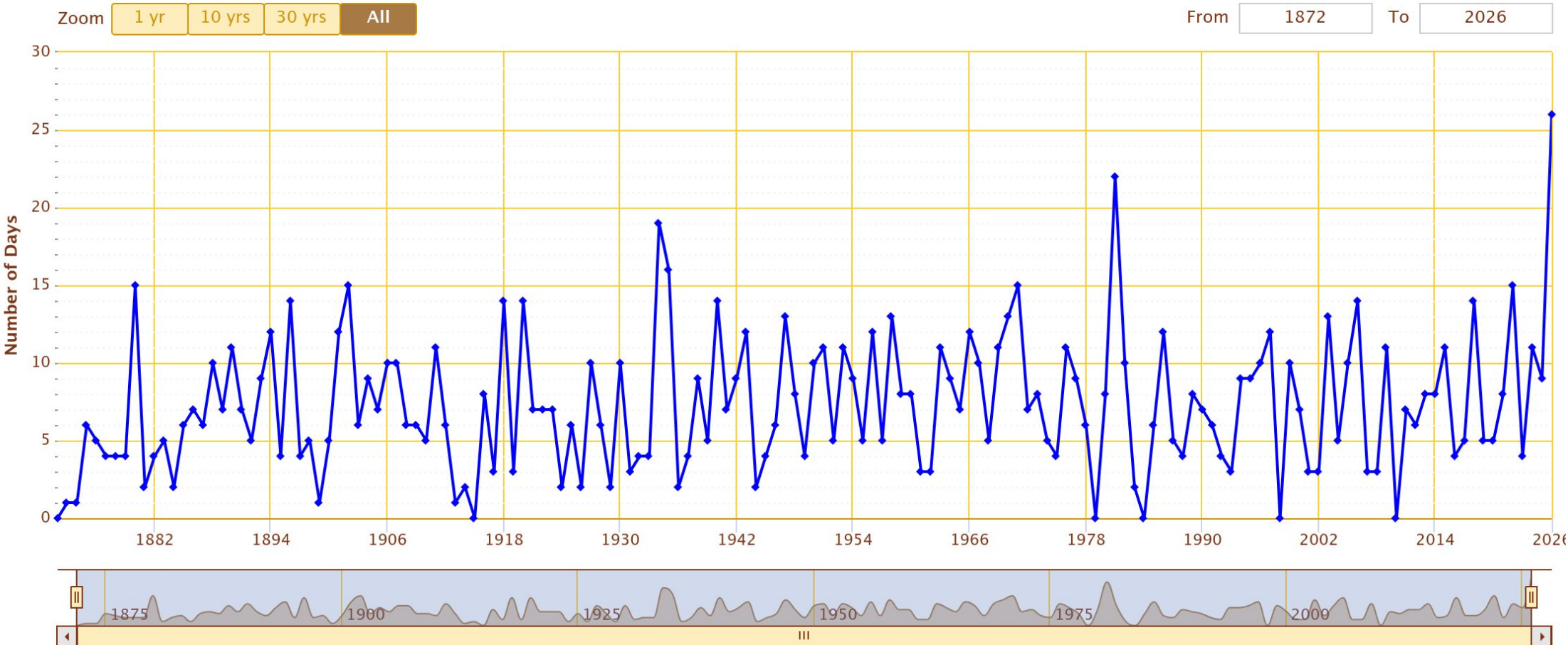
Powered by ACIS

Remarkable warmth

Same for Denver and the Springs (these will likely be the final totals through the end of Jan).

Number of Days Max Temperature ≥ 60 Dec 1 to Jan 31 – Denver Area, CO (ThreadEx)

Use navigation tools above and below chart to change displayed range

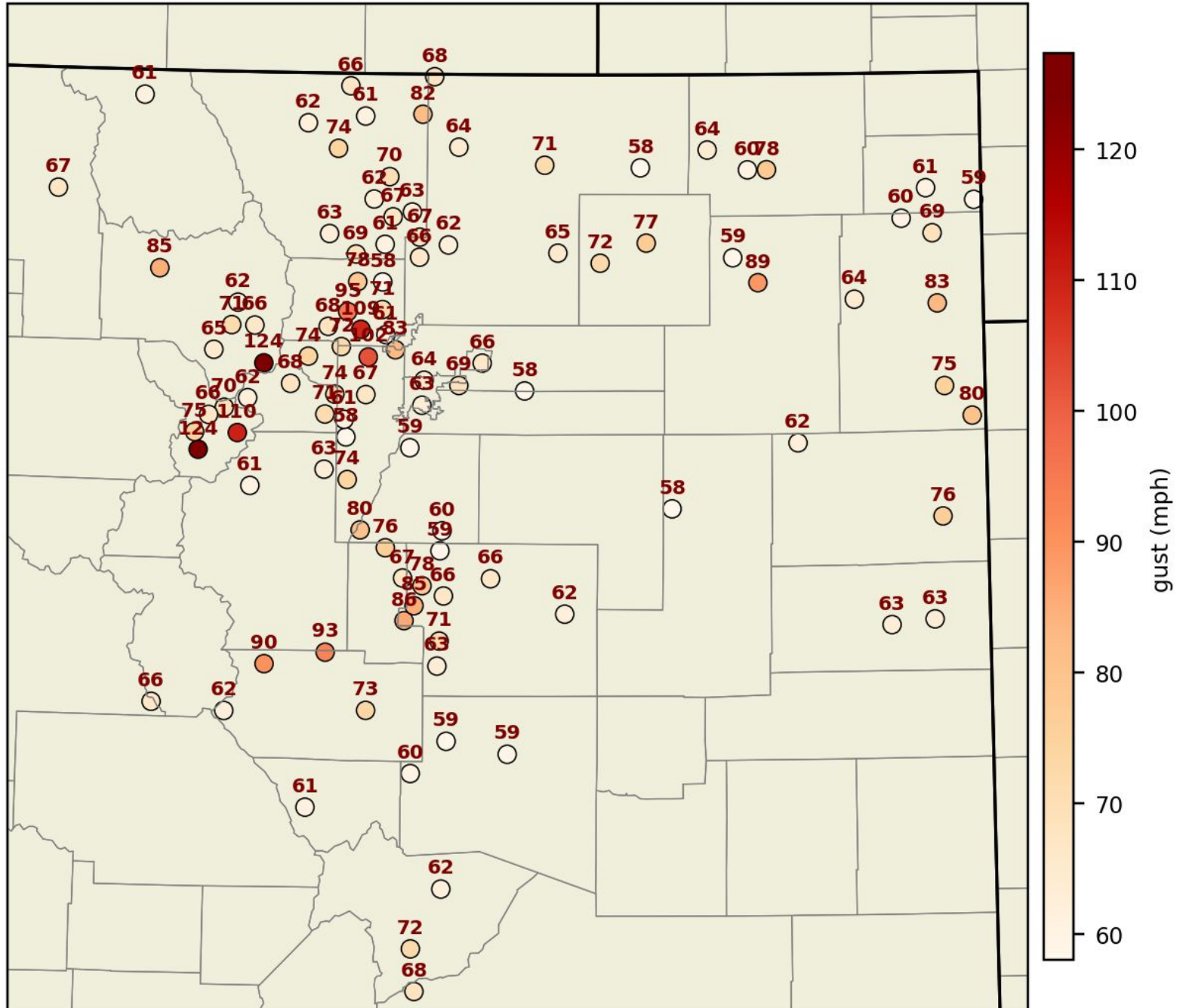


Powered by ACIS



High winds & fire danger

Several downslope wind days that brought gusts > 100mph to parts of the Front Range and prompted public safety power shutoffs



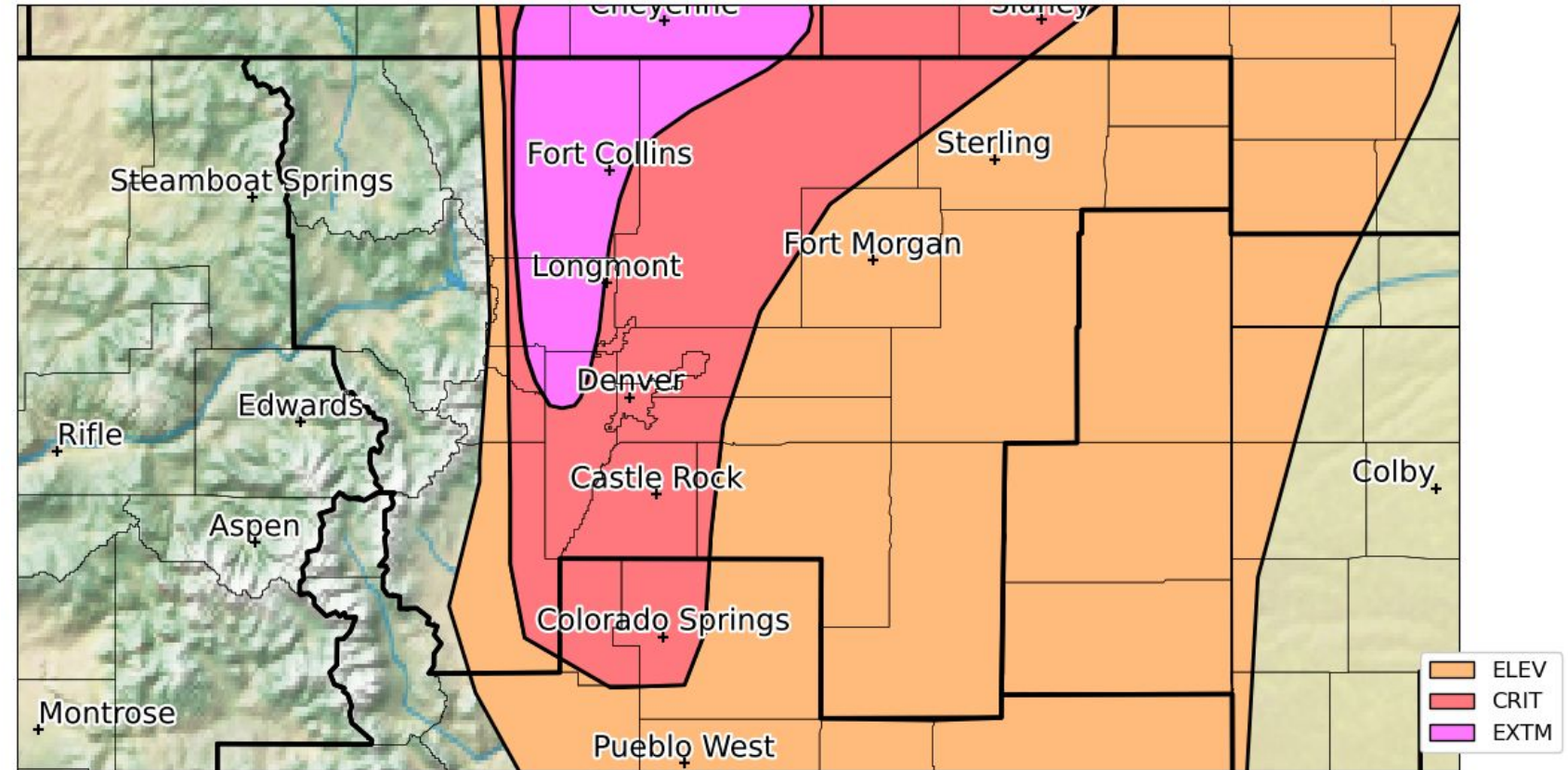
High winds & fire danger

NOAA Storm Prediction Center issued an “extremely critical” risk for fire weather on Dec. 19. These are rare in NE Colorado (1-2/year), and unprecedented in December.



December 19, 2025 Storm Prediction Center Day 1 Fire Weather Categorical Outlook

Issued: 2025-12-19 07:21 UTC | Valid: 2025-12-19 12:00 UTC | Expire: 2025-12-20 12:00 UTC



Generated at 22 Jan 2026 8:52 AM CST in 1.08s

IEM Autoplot App #220



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High winds & fire danger

A strong cold front also brought strong winds to the Eastern Plains on Dec. 17. Nine wildfires broke out across Yuma County, burning over 14k acres before being extinguished the next day.



Fire in Yuma County, Dec. 17-18
Photo by Joshua Baumgardner, Denver7

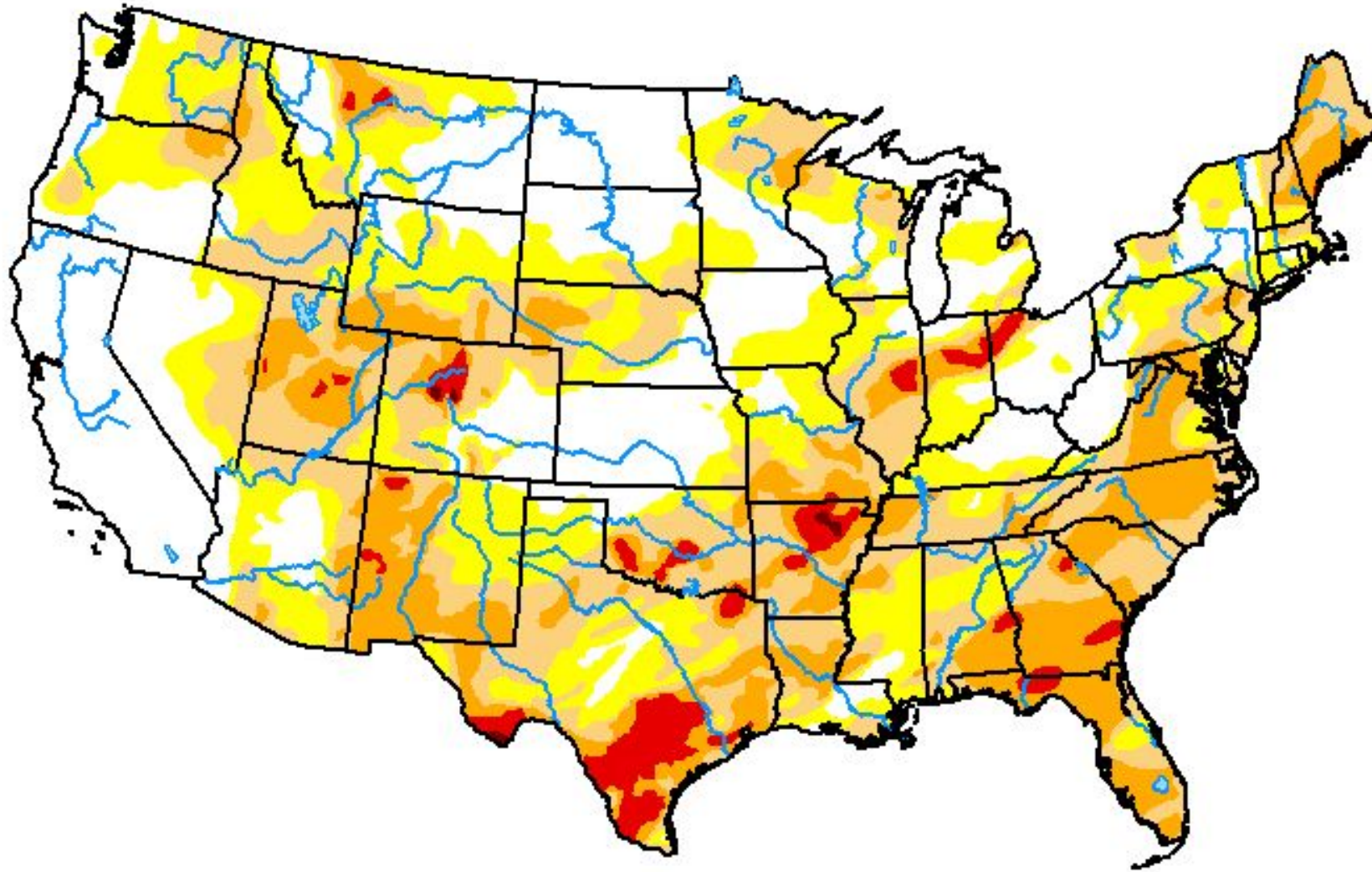
Drought Conditions



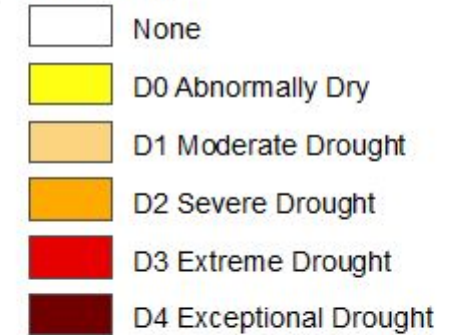
Dixon Reservoir in late December
Photo from Henry Reges



US Drought Monitor – Valid Jan 20



Intensity:



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>

Author:

Brad Rippey
U.S. Department of Agriculture



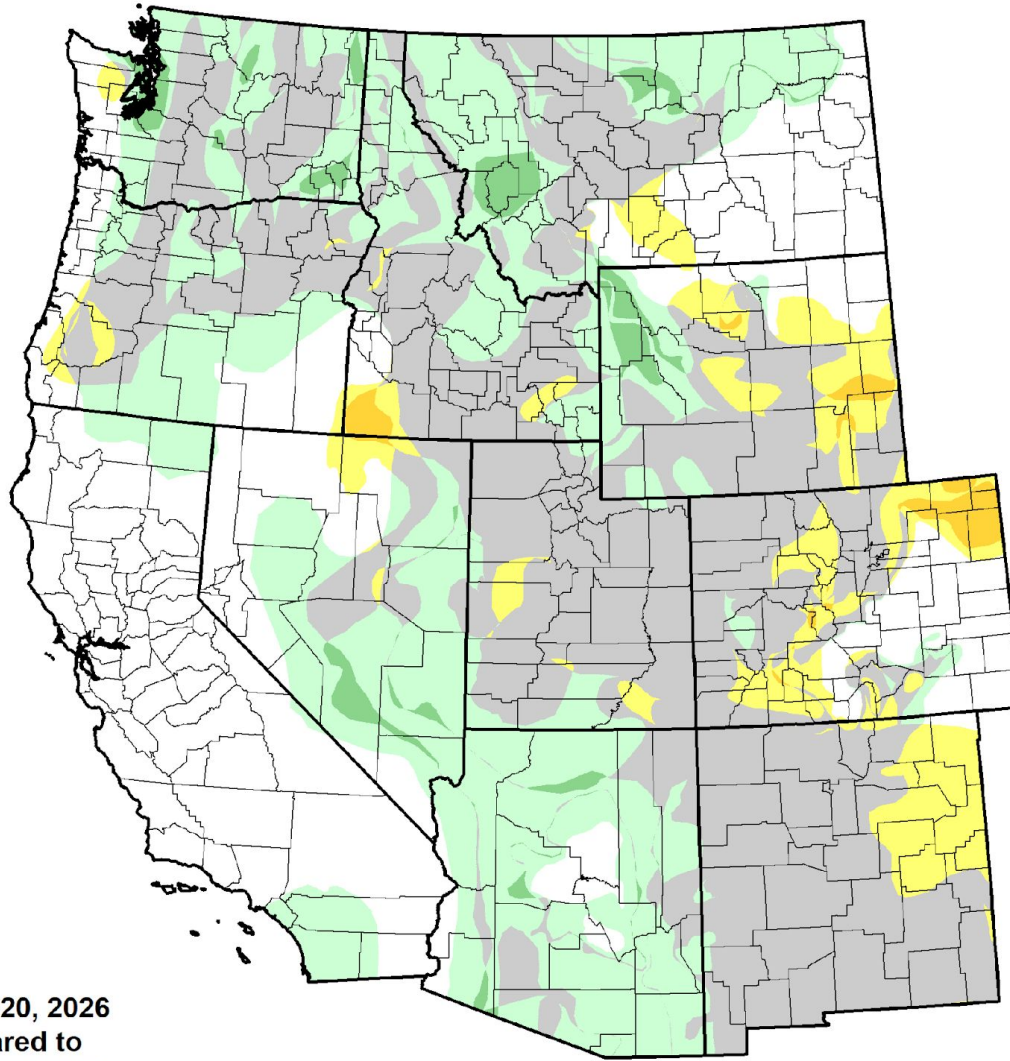
droughtmonitor.unl.edu



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U.S. Drought Monitor Class Change - West 4 Week



January 20, 2026
compared to
December 23, 2025

droughtmonitor.unl.edu



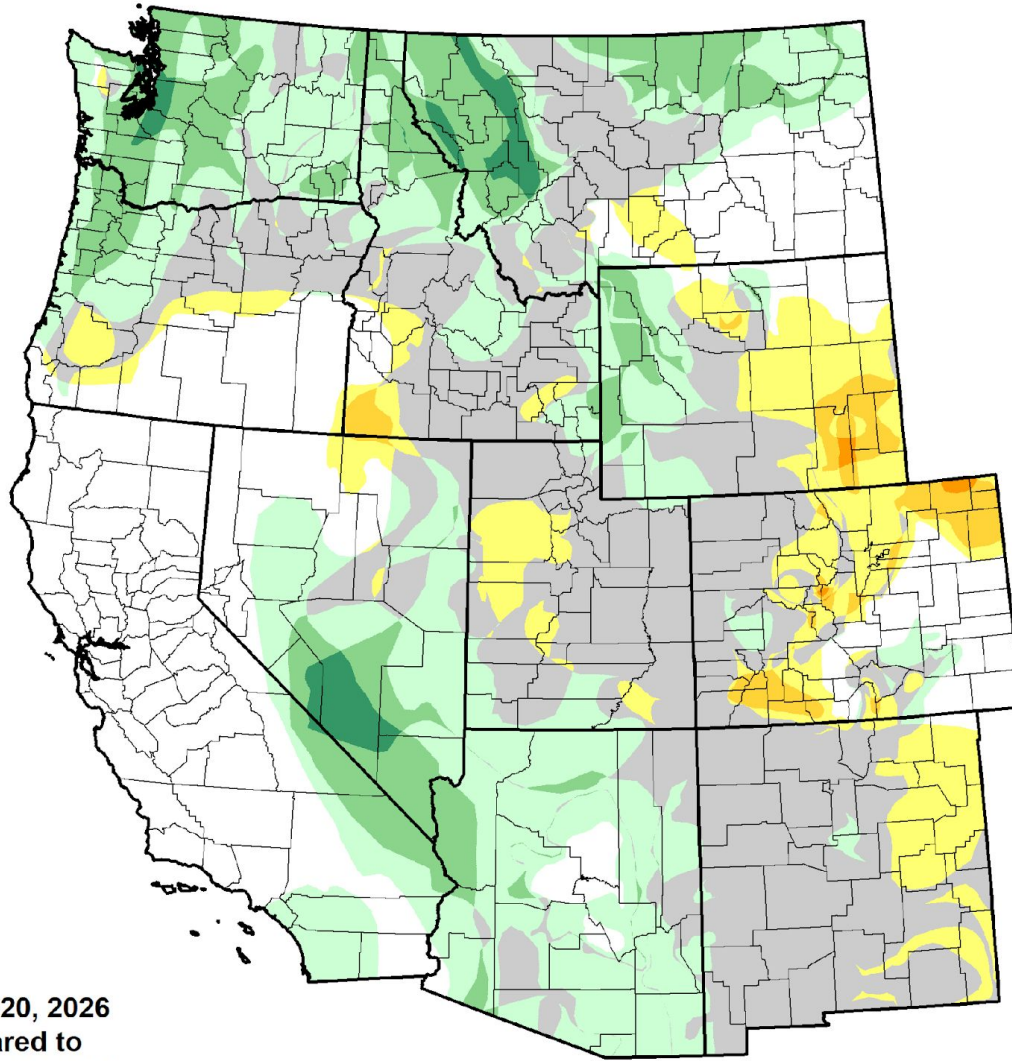
- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement



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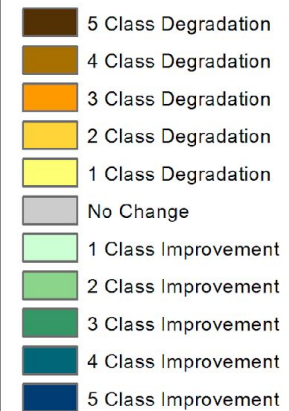


U.S. Drought Monitor Class Change - West 8 Week



January 20, 2026
compared to
November 25, 2025

droughtmonitor.unl.edu



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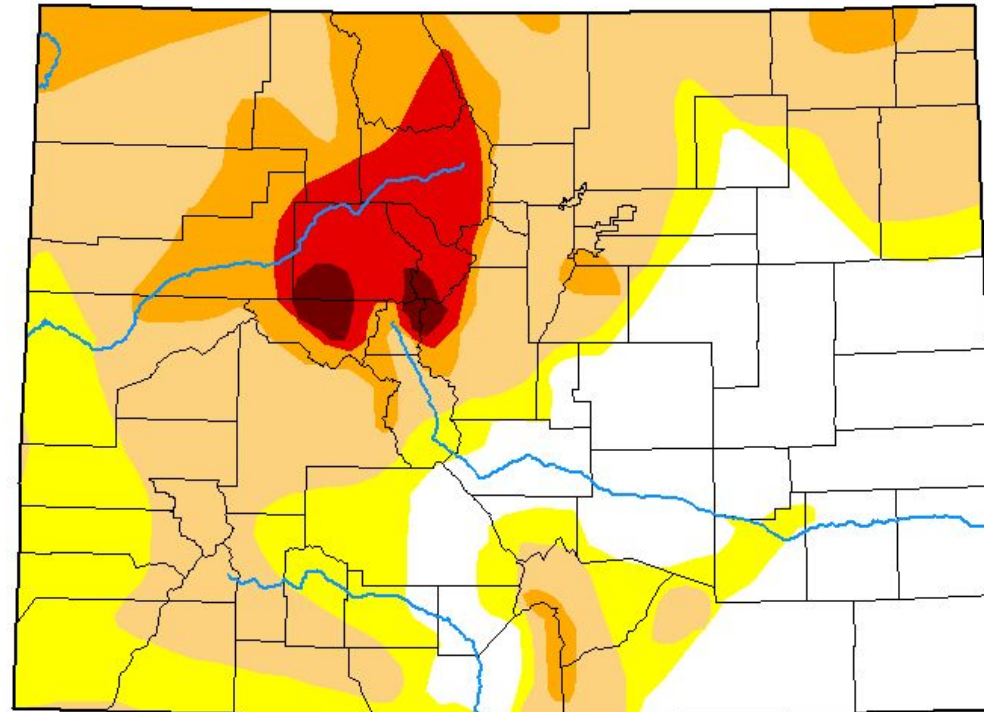


U.S. Drought Monitor Colorado

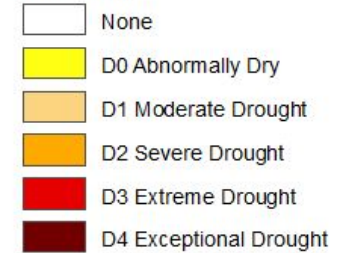
January 20, 2026
(Released Thursday, Jan. 22, 2026)
Valid 7 a.m. EST

Exceptional drought returned to CO in December. It includes portions of Eagle, Pitkin, Park, Lake, and Summit Counties.

Approximately 16% of the state is currently in severe drought or worse.



Intensity:



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>

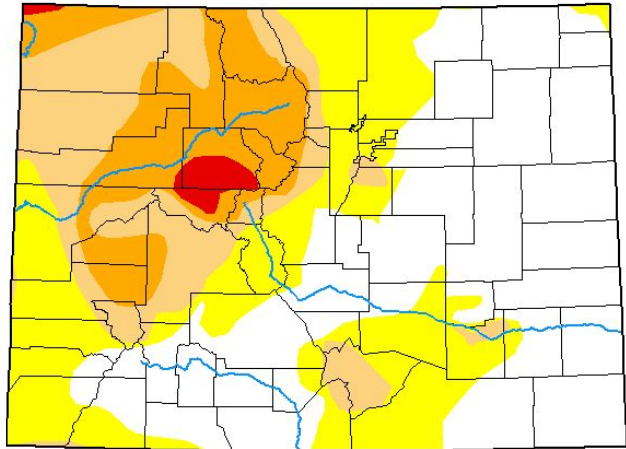
Author:

Brad Rippey
U.S. Department of Agriculture



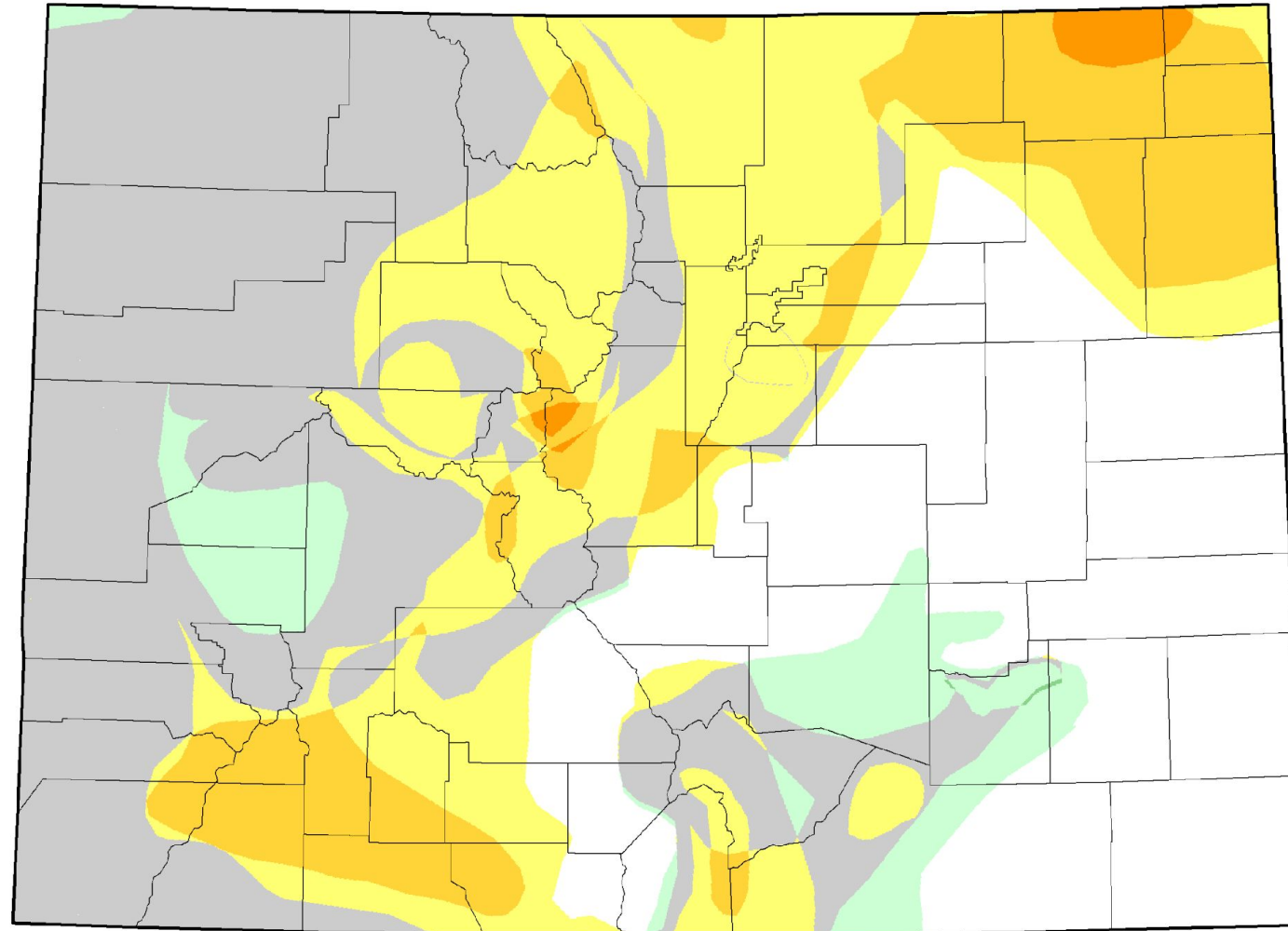
droughtmonitor.unl.edu

Change from late Nov to now

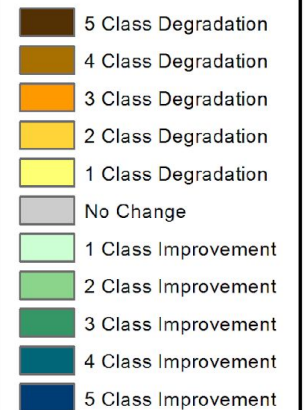


Nov. 25

U.S. Drought Monitor Class Change - Colorado 8 Week



January 20, 2026
compared to
November 25, 2025



droughtmonitor.unl.edu

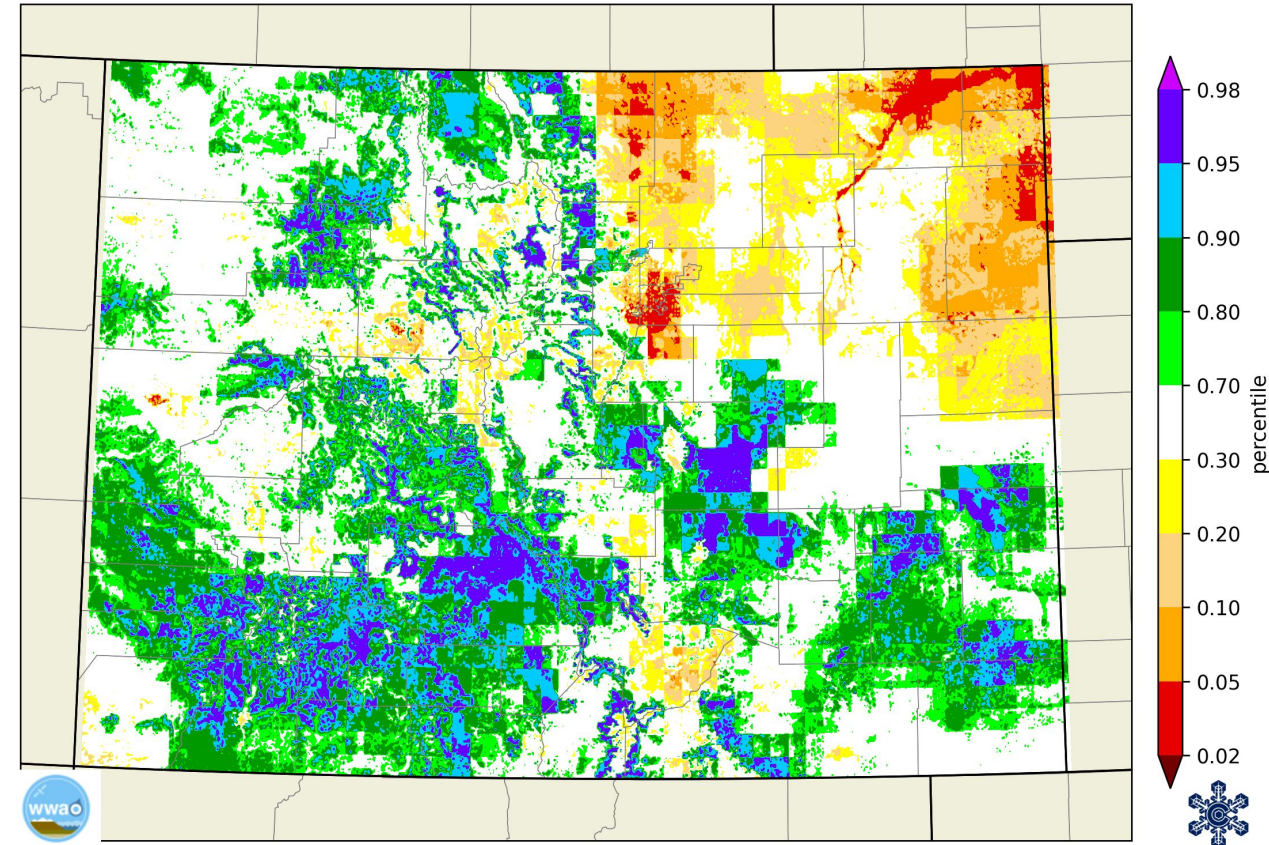


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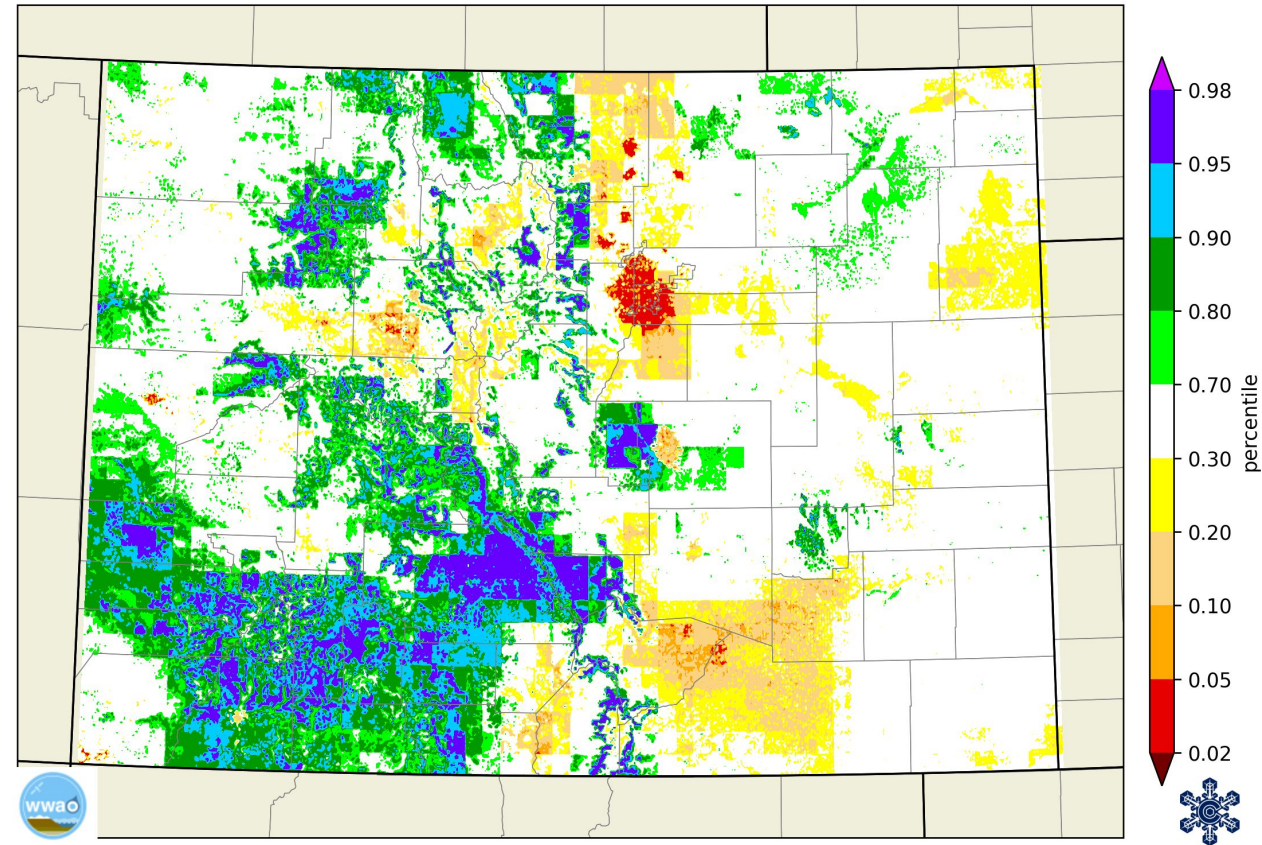
Soil Moisture

Southwest CO seems to be holding on to moisture from the wet fall. Same in northeast CO, but there's some evidence of some drying at shallow depths

WLDAS 10-cm Soil moisture percentile, 16 Jan 2026



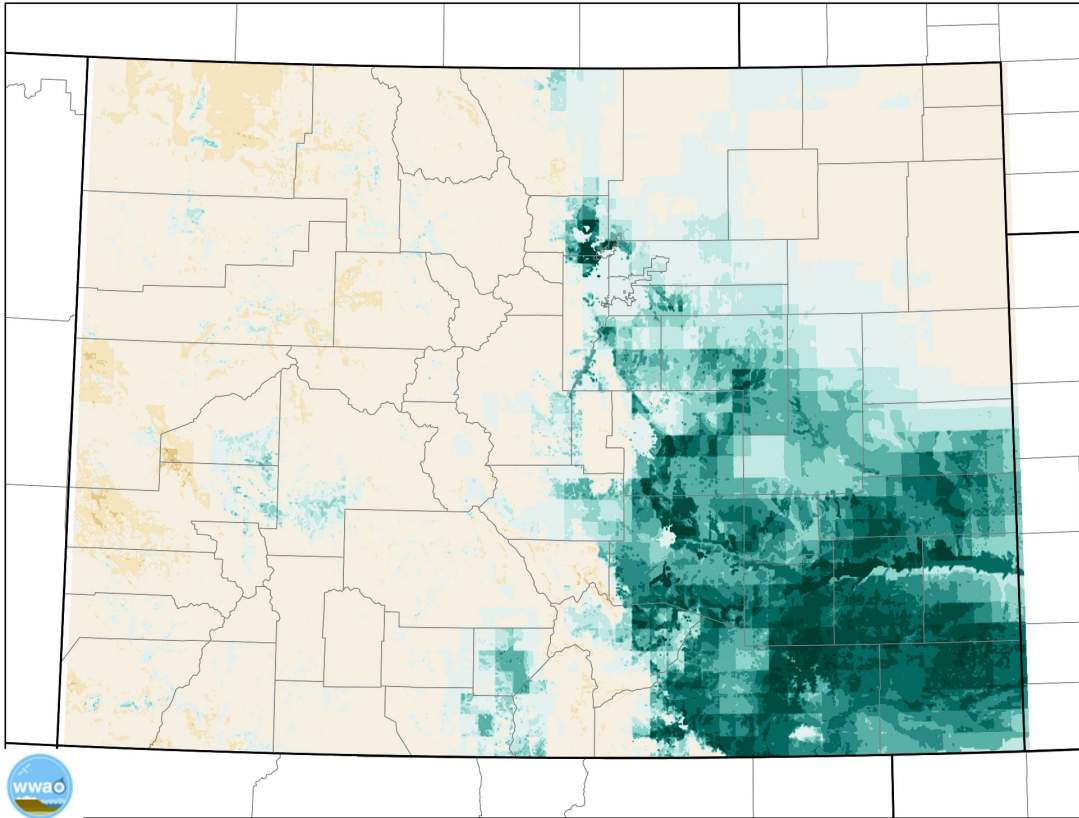
WLDAS 1-meter Soil moisture percentile, 16 Jan 2026



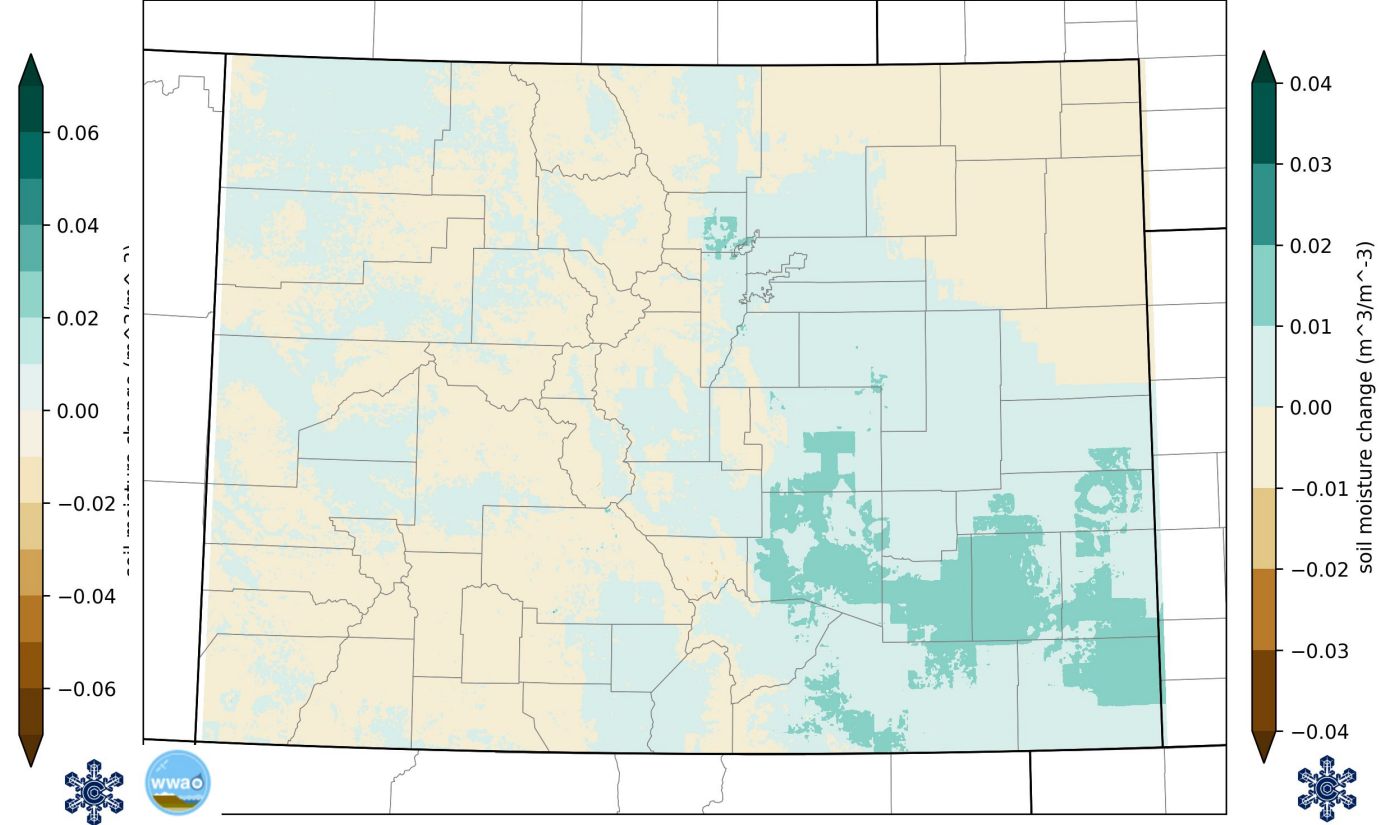
Soil Moisture

Soils in Southeast CO have benefitted from recent moisture.

WLDAS 7-day change in 10-cm soil moisture, 16 Jan 2026



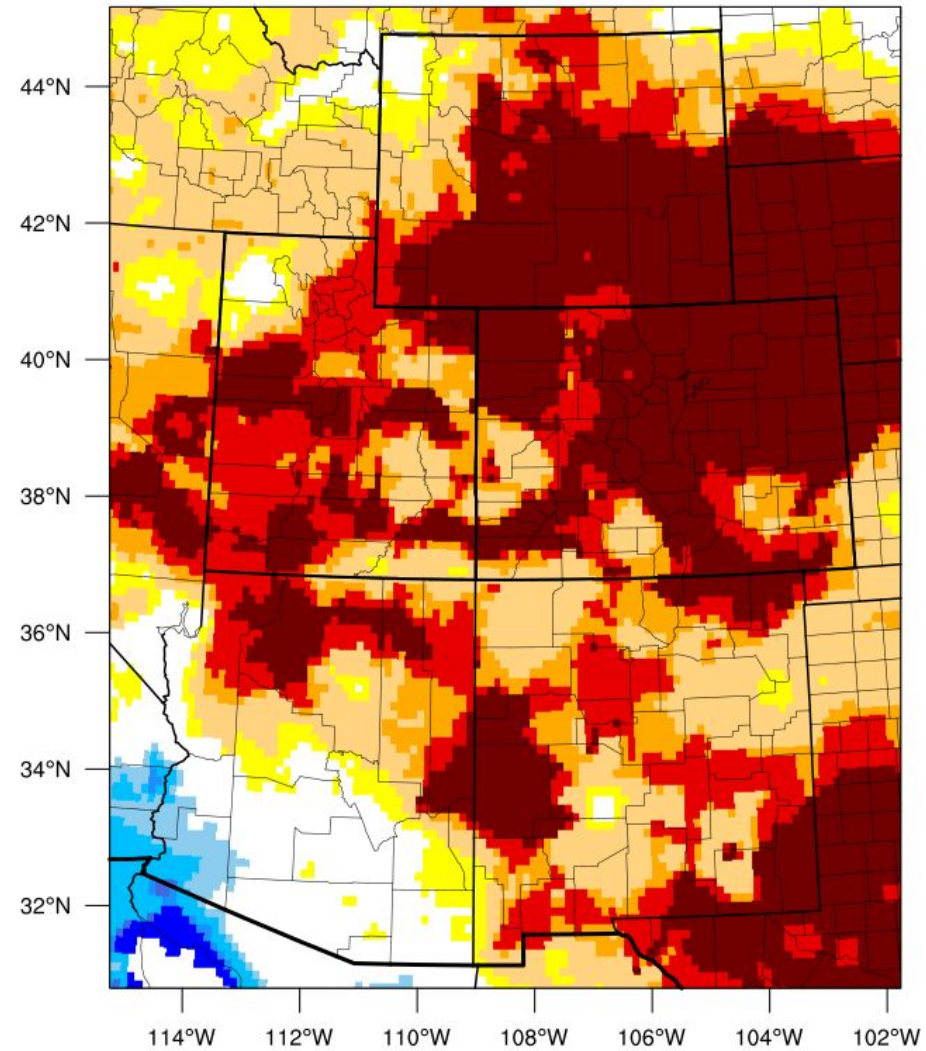
WLDAS 7-day change in 1-meter soil moisture, 16 Jan 2026



Evaporative Demand Drought Index

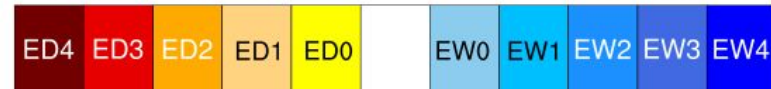
Very high evaporative demand over the past few months, driven by warm temperatures and relatively dry conditions

3-month EDDI categories for January 16, 2026



Drought categories

Wetness categories



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



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Outlook

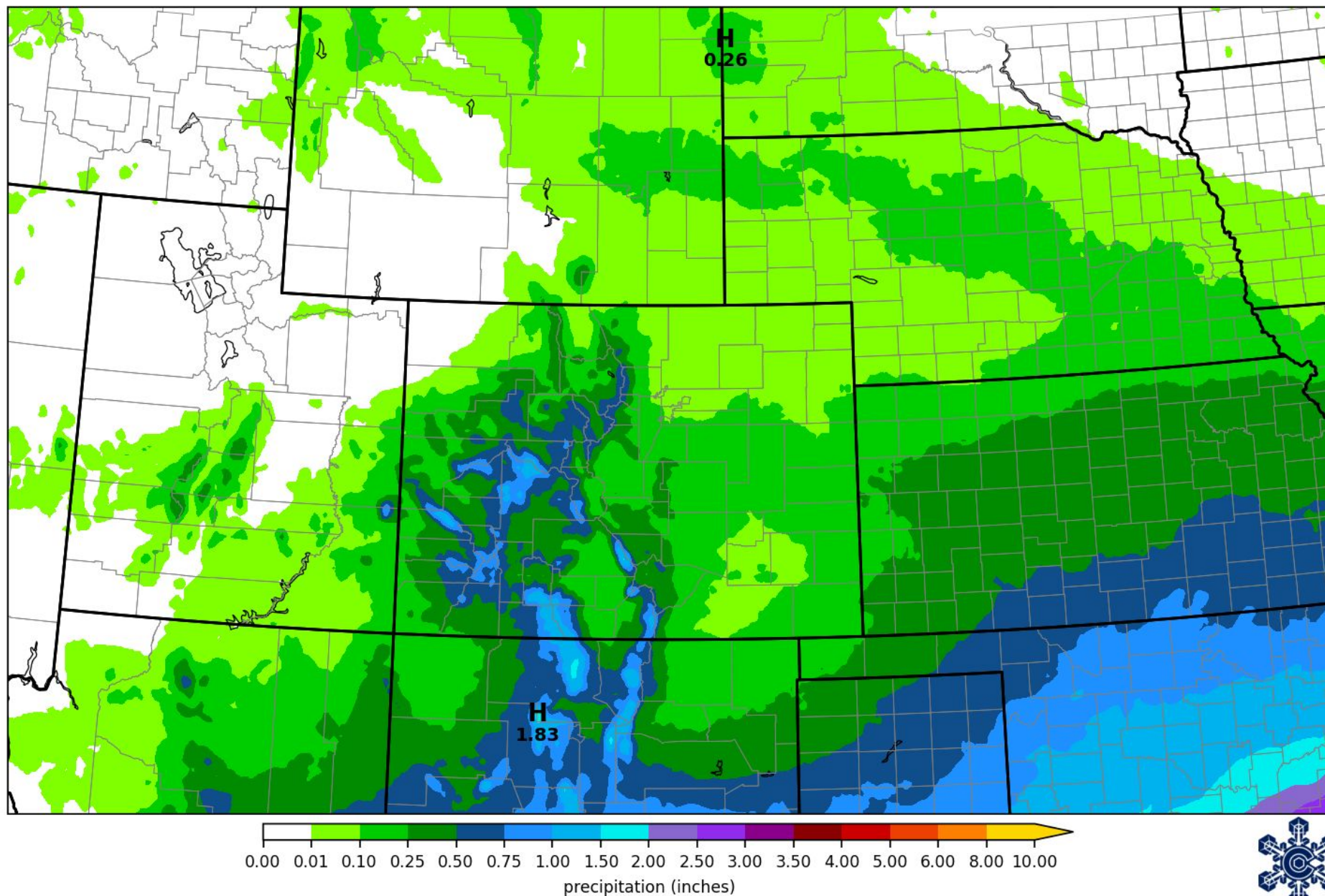


NOAA 7-day precipitation forecast

NOAA Weather Prediction Center
7-day precipitation forecast

forecast issued 1200 UTC Thu 22 Jan 2026
precipitation in 168 hrs ending 1200 UTC Thu 29 Jan 2026

Snow expected this
weekend, then
mostly dry through
the end of January



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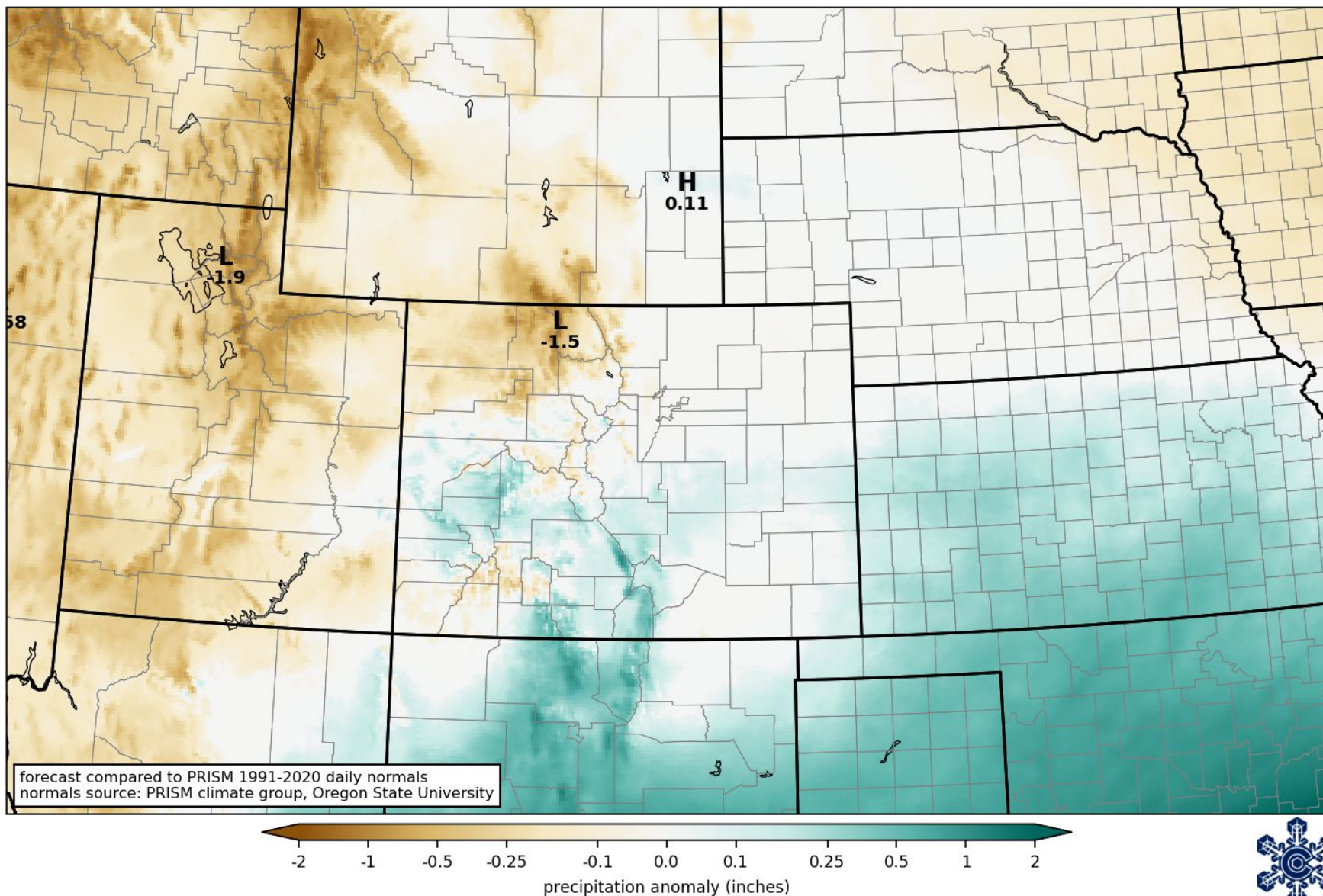
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NOAA 7-day precipitation forecast (difference from average)

Snow could provide
a needed boost to
the Sangres and the
San Juans but
probably won't make
a meaningful
difference for areas
north of I-70

NOAA Weather Prediction Center
7-day precip forecast departure from average

forecast issued 1200 UTC Thu 22 Jan 2026
precipitation in 168 hrs ending 1200 UTC Thu 29 Jan 2026



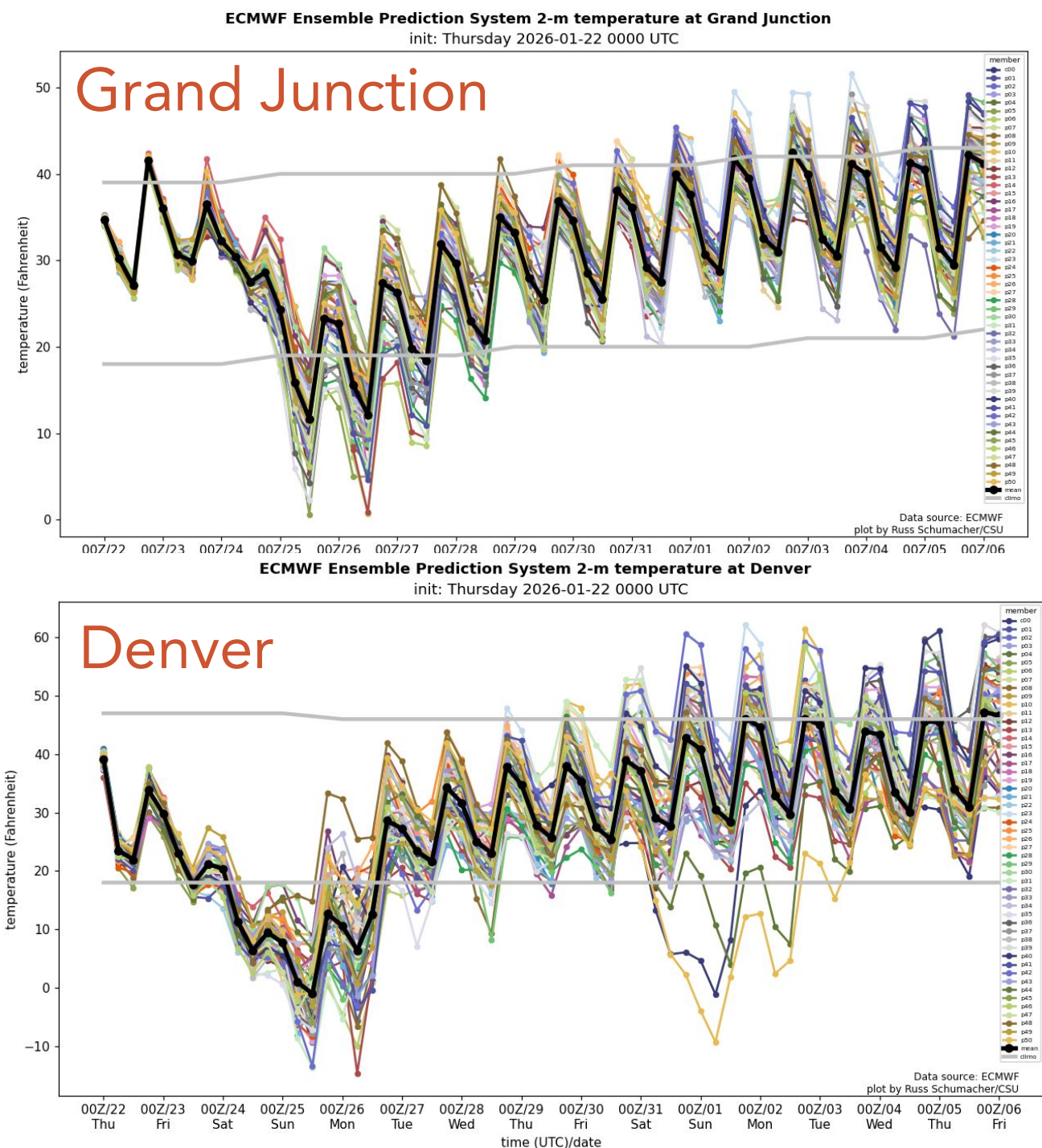
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Ensemble temperature outlook

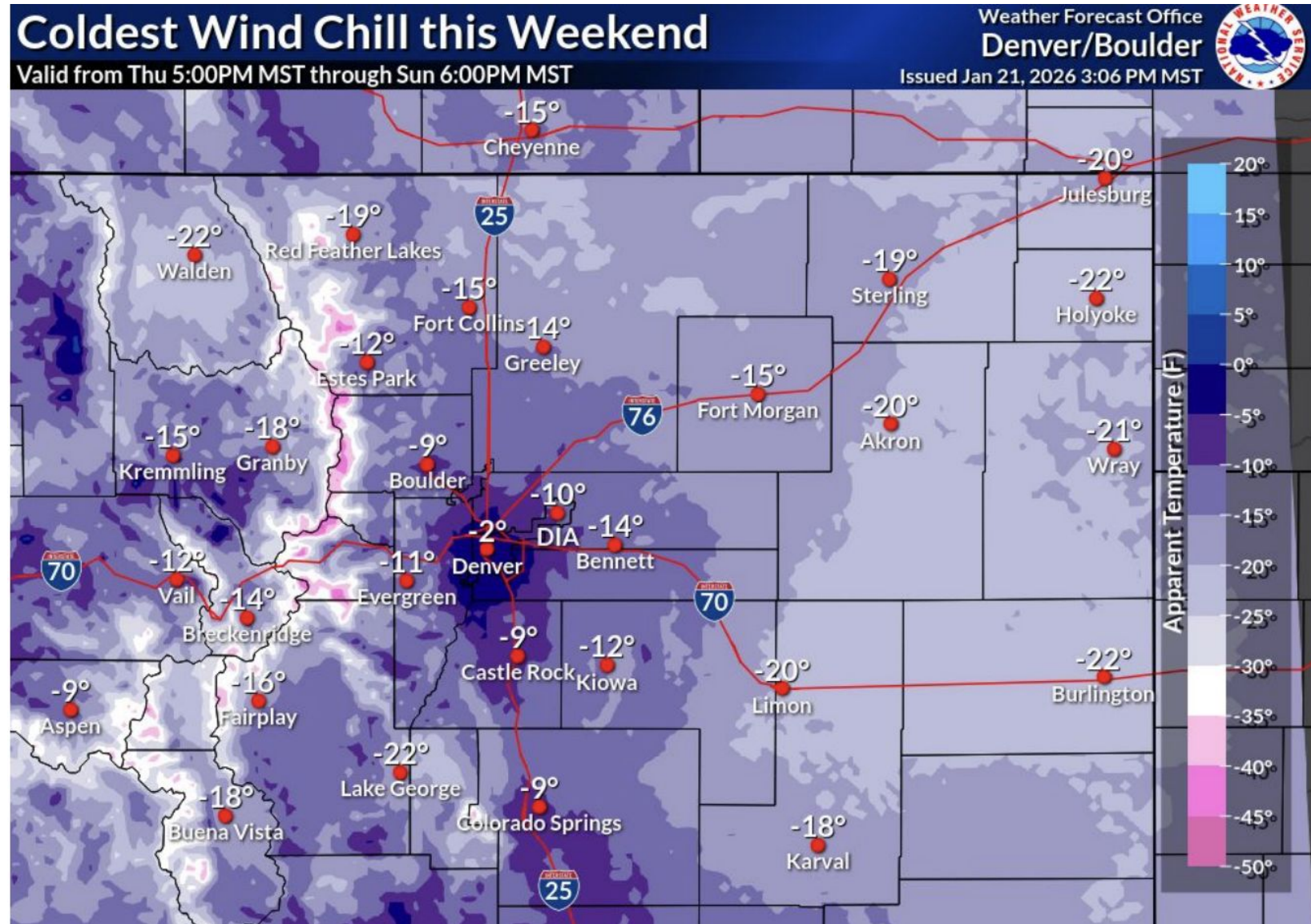
Big cold snap this weekend and the first big taste of winter temps for many! The most severe cold will be on the Eastern Plains, but most of CO will be below average through the weekend.

Temperatures will warm to near- or slightly above average as we look towards February.



Dangerous wind chills possible

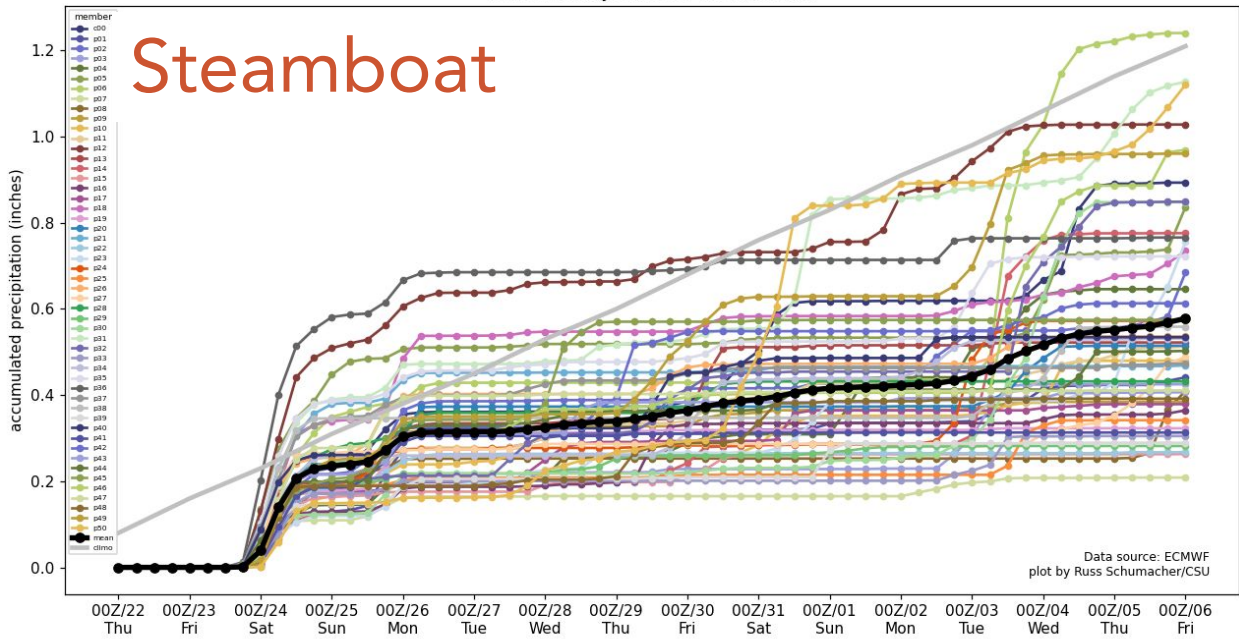
Sub-zero wind chills possible Friday night-Monday morning. Actual temperatures on the Eastern Plains will also be near or below zero



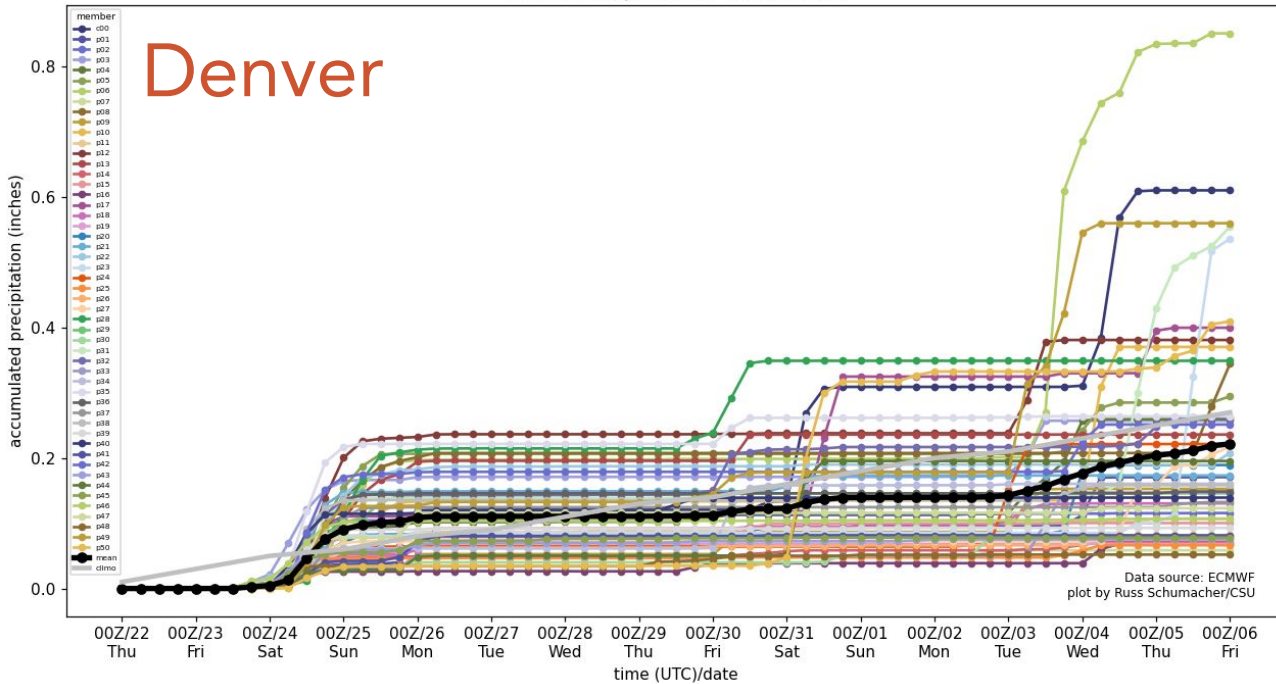
Ensemble precipitation forecasts

Next chances for precipitation after this weekend not expected until at least early Feb. Slightly greater chances in the mountains, but low chances for drought-busting snow

ECMWF Ensemble Prediction System accumulated precipitation at Steamboat Springs
init: Thursday 2026-01-22 0000 UTC

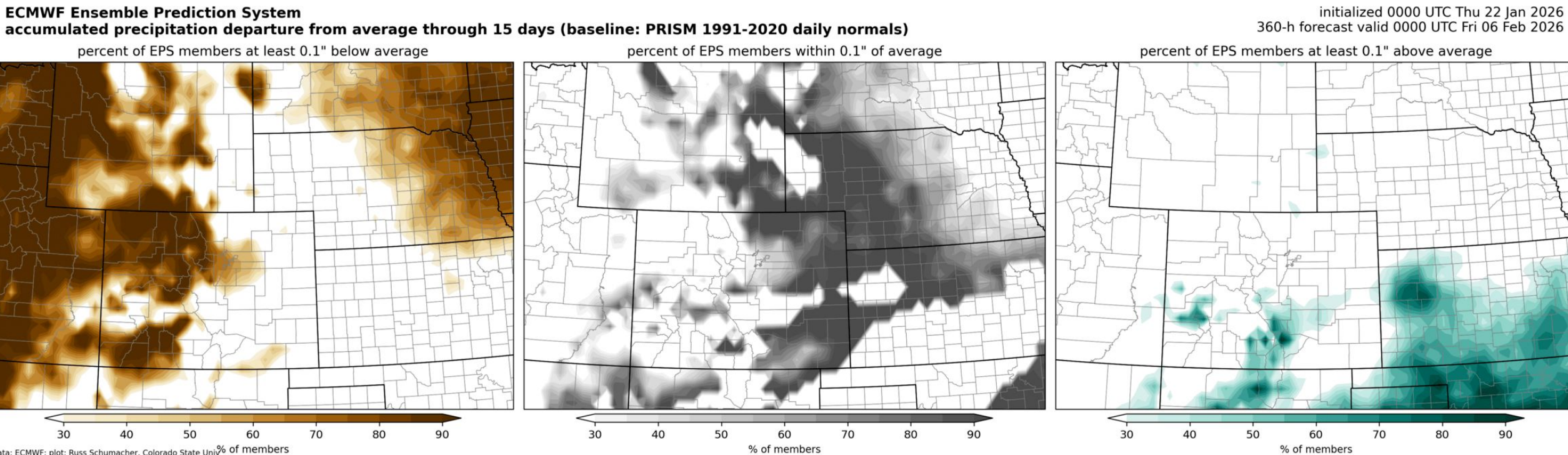


ECMWF Ensemble Prediction System accumulated precipitation at Denver
init: Thursday 2026-01-22 0000 UTC



Will the next 15 days be above, below, or near-average precipitation? Almost certainly drier than normal in northwest CO, wetter than normal for southern CO (driven by this weekend's precipitation).

Out of 50 different model forecasts, how many are at least 0.1" above/below average, or within 0.1" of average?



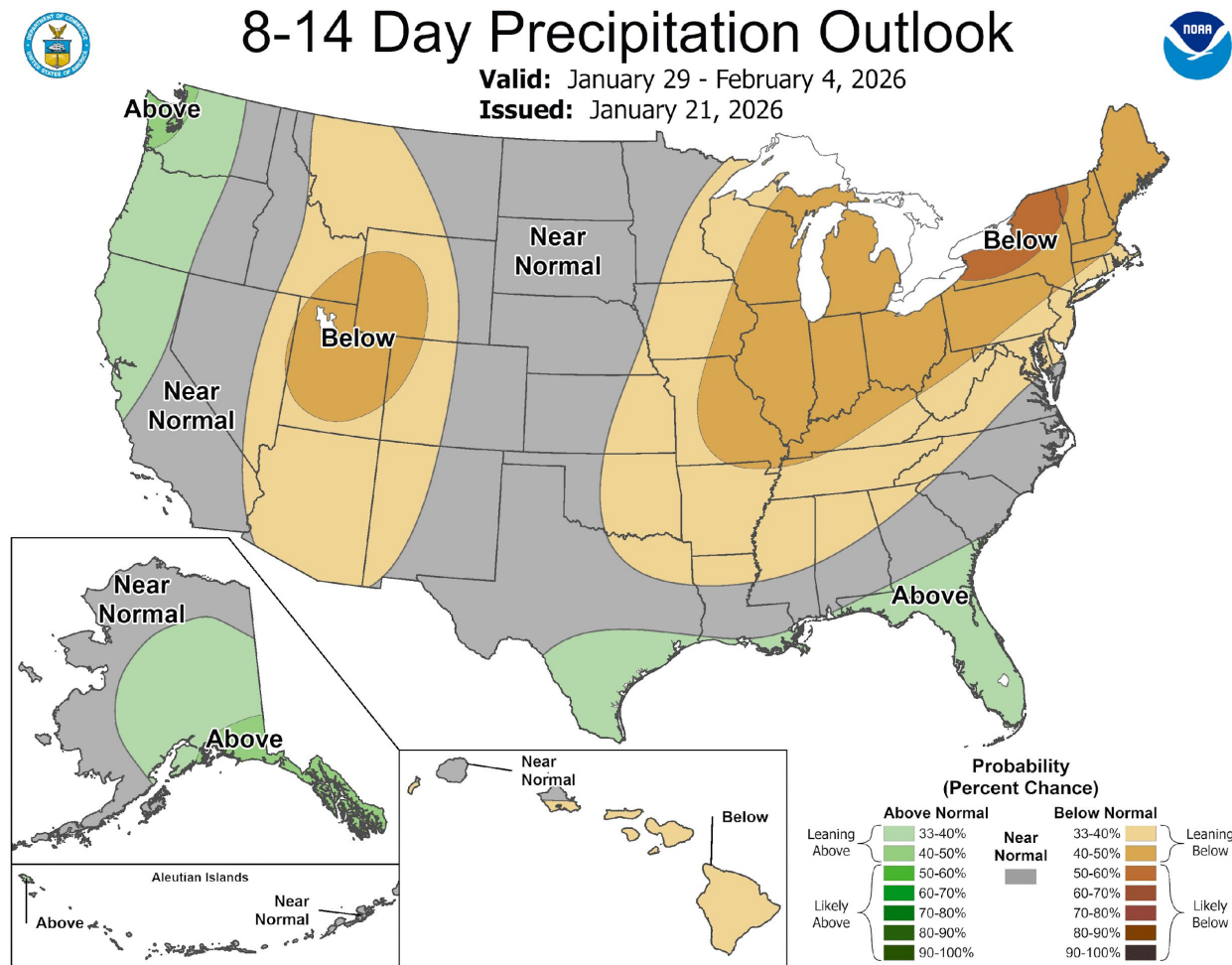
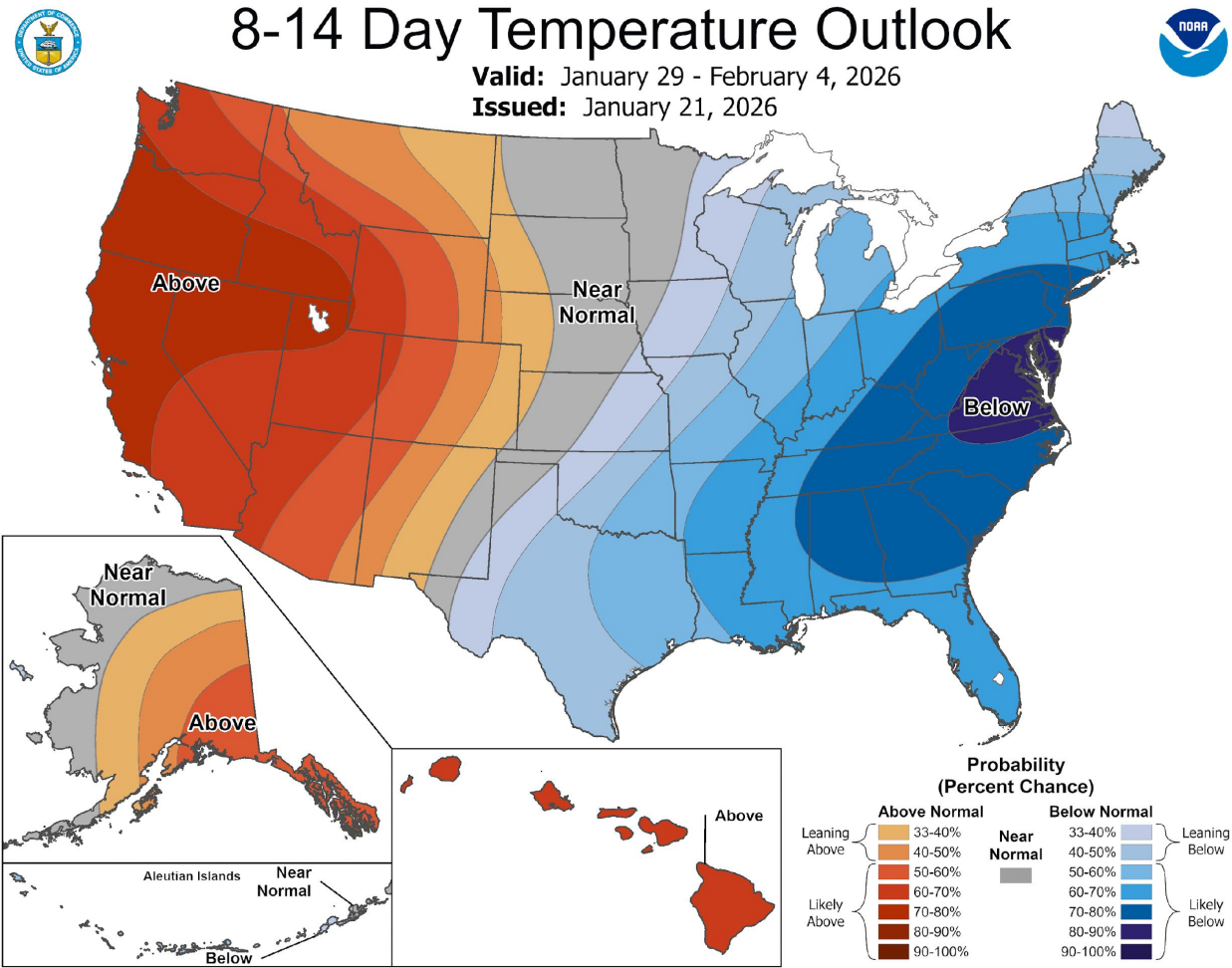
Percent of members below average

Percent of members within 0.1"

Percent of members above avg

<https://schumacher.atmos.colostate.edu/weather/ecmwf.php>

8-14 day outlook: Above normal temperatures likely; below-normal precipitation for western CO.

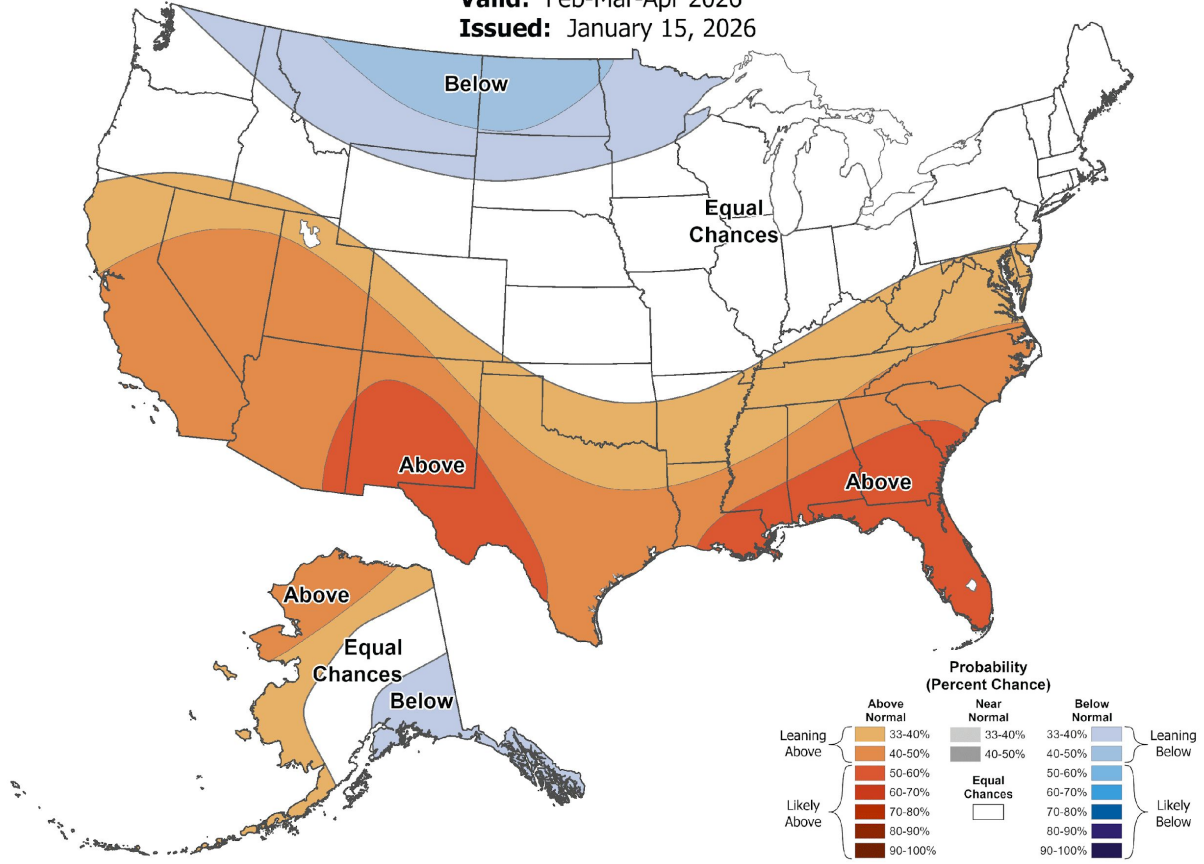


Seasonal outlook: Some for northern CO, but above normal temperatures and below normal precipitation are expected in southern CO.



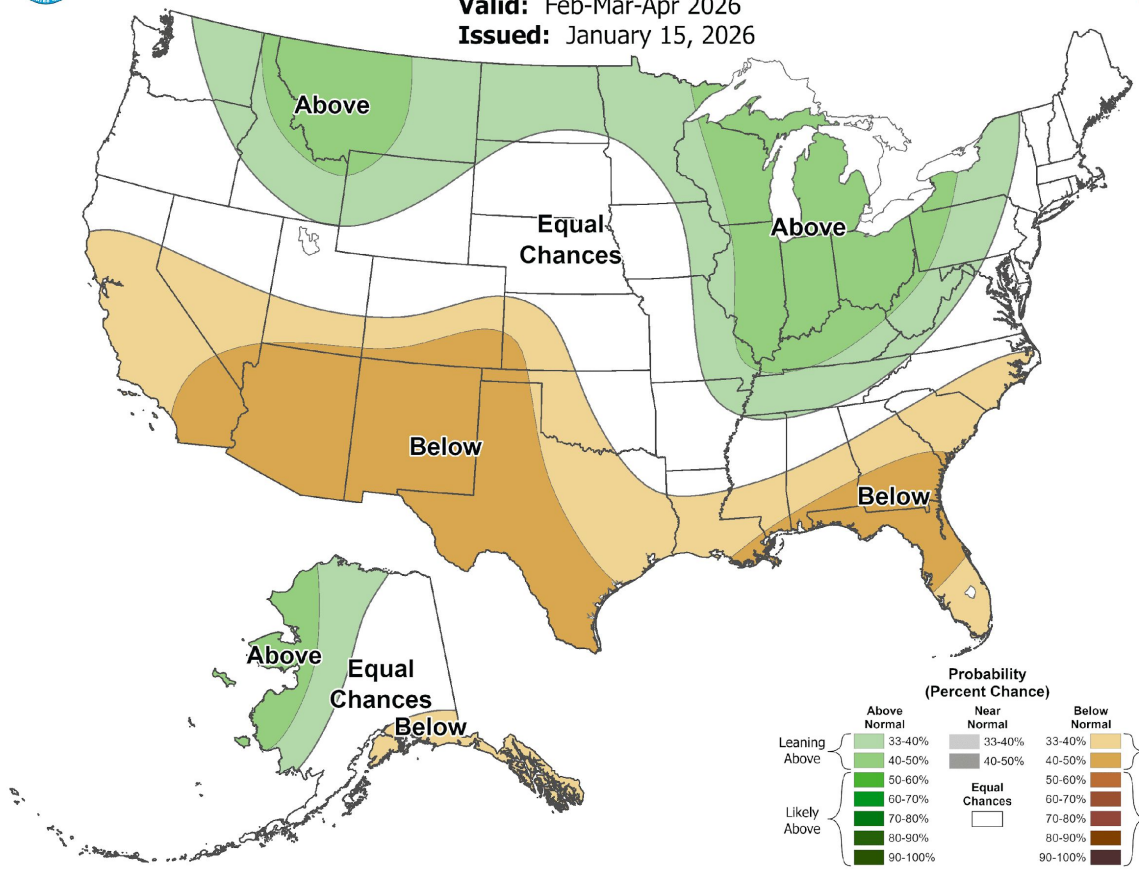
Seasonal Temperature Outlook

Valid: Feb-Mar-Apr 2026
Issued: January 15, 2026



Seasonal Precipitation Outlook

Valid: Feb-Mar-Apr 2026
Issued: January 15, 2026

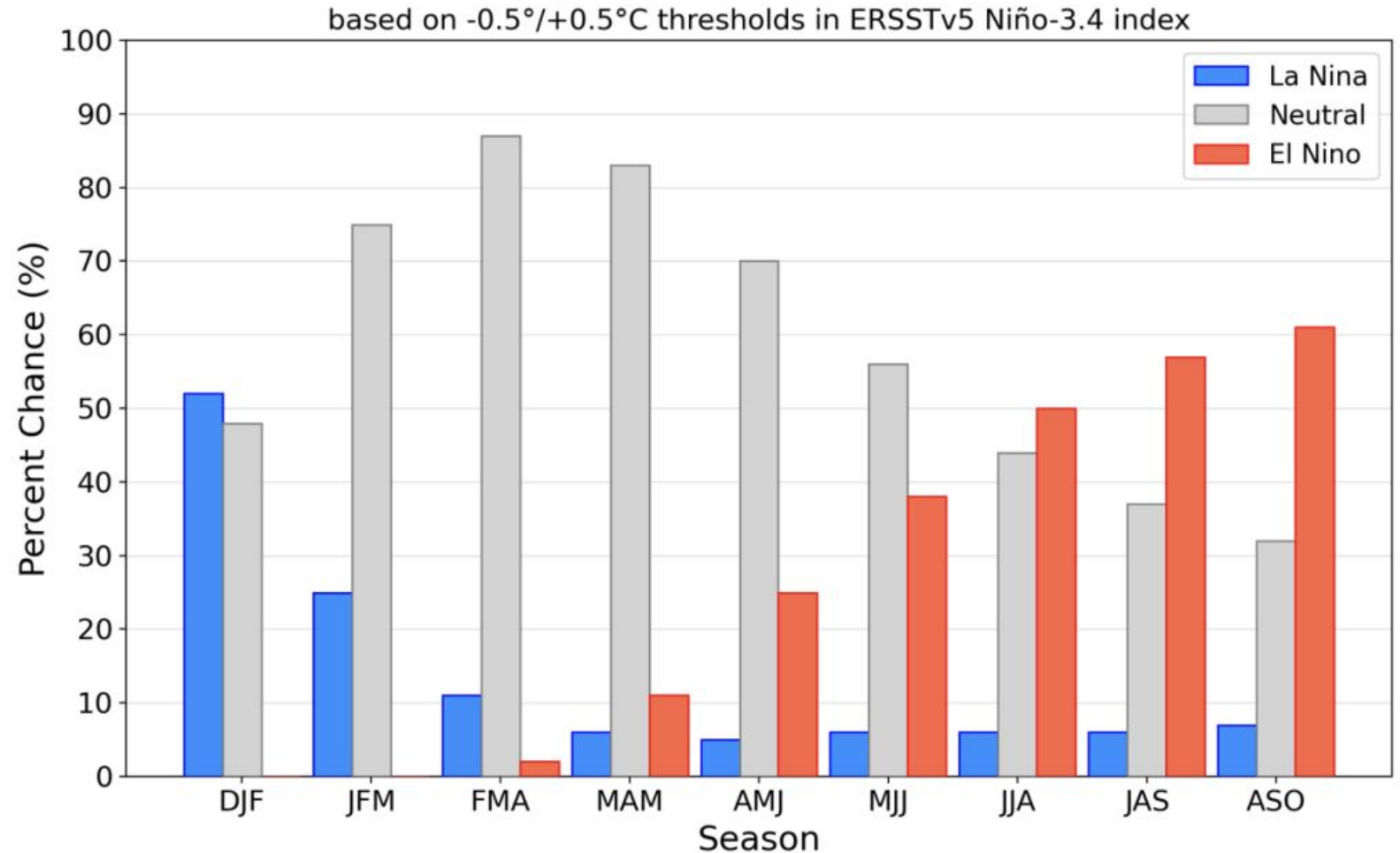


ENSO outlook: La Niña still in place, shift to ENSO neutral expected in the next few months

A shift to ENSO neutral is expected sometime in the late winter to early spring (>80% chance of neutral conditions between Feb-Apr).

There is little known connection between ENSO neutral and CO precipitation, making it difficult seasonal snowfall forecasts even more challenging.

Official NOAA CPC ENSO Probabilities (issued January 2026)



Key Takeaways

- 2025 was the 4th warmest year on record, and December 2025 was the warmest December on record.
- Temperature anomalies were greater than 10°F for parts of CO in December, which smashed numerous records.
- Nov-Dec have been dry for most of Colorado, and January has been a continuation of the warm/dry trend.
- Windy weather was also a theme in December, bringing power shutoffs, gusts exceeding 100 mph, and wildfires east of the Divide.
- Precipitation and below-normal temperatures are likely this weekend. We will dry out for the rest of Jan-start of Feb.



Thank you!



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WLDAS uses meteorological observables including precipitation, incoming shortwave and longwave radiation, near surface air temperature, humidity, wind speed, and surface pressure along with parameters such as vegetation class, soil texture, and elevation as inputs to a model that simulates land surface energy and water budget processes. Outputs of the model include soil moisture, snow depth and snow water equivalent, evapotranspiration, soil temperature, as well as derived quantities such as groundwater recharge and anomalies of the state variables.