

Impacts of our drought on NM's agriculture and natural resources

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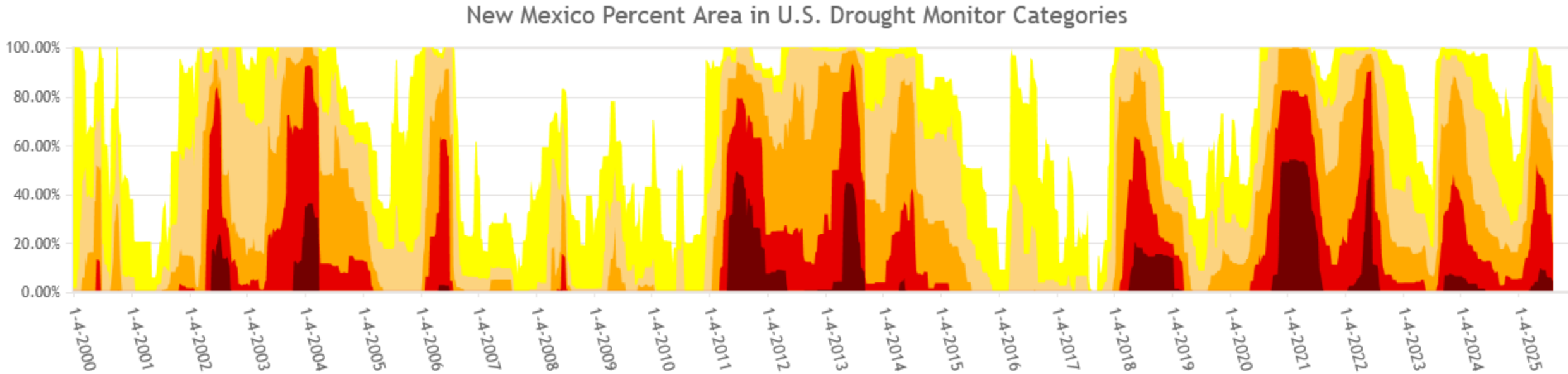
Water and Natural Resources Committee meeting



August 18, 2025

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New Mexico's Drought over last 25 years



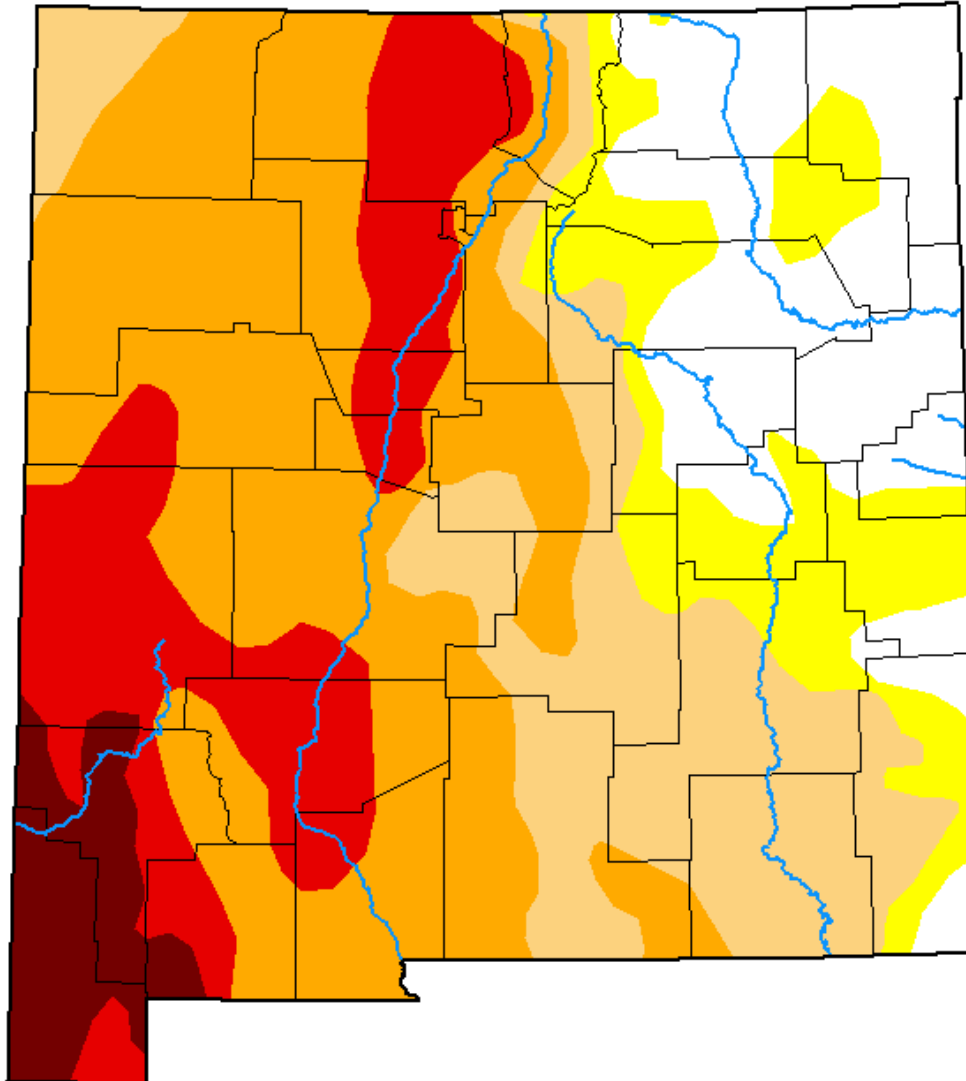
Above graph is the US Drought Monitor area of the state in each drought category since 2000. D4 showed up 11 times in last 25 years.

Intensity and Impacts

- | | |
|-----------------------|--------------------------|
| None | D3 (Extreme Drought) |
| D0 (Abnormally Dry) | D4 (Exceptional Drought) |
| D1 (Moderate Drought) | No Data |
| D2 (Severe Drought) | |

U.S. Drought Monitor New Mexico

August 12, 2025
(Released Thursday, Aug. 14, 2025)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	16.05	83.95	72.83	53.81	20.21	4.73
Last Week <i>08-05-2025</i>	16.05	83.95	72.83	53.81	20.21	4.73
3 Months Ago <i>05-13-2025</i>	3.79	96.21	86.55	73.69	48.20	7.51
Start of Calendar Year <i>01-07-2025</i>	43.30	56.70	35.22	19.69	5.37	0.00
Start of Water Year <i>10-01-2024</i>	28.35	71.65	34.73	17.54	2.80	0.00
One Year Ago <i>08-13-2024</i>	18.33	81.67	46.49	22.68	7.85	0.00

Intensity:

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

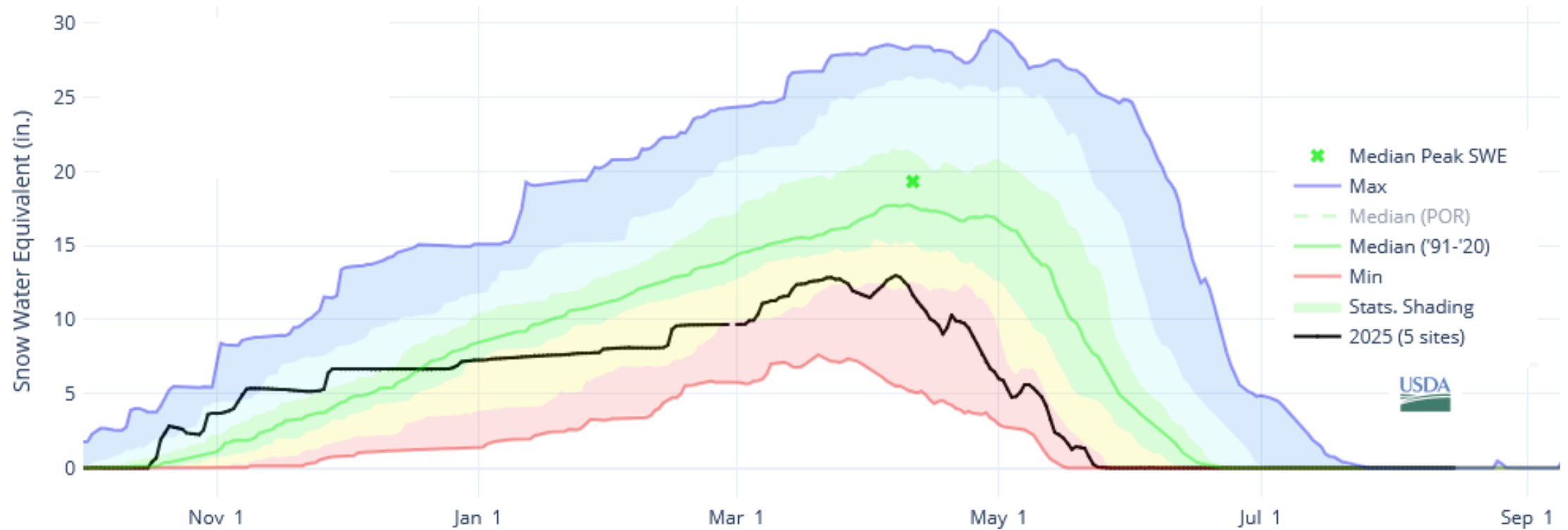
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Richard Tinker
CPC/NOAA/NWS/NCEP

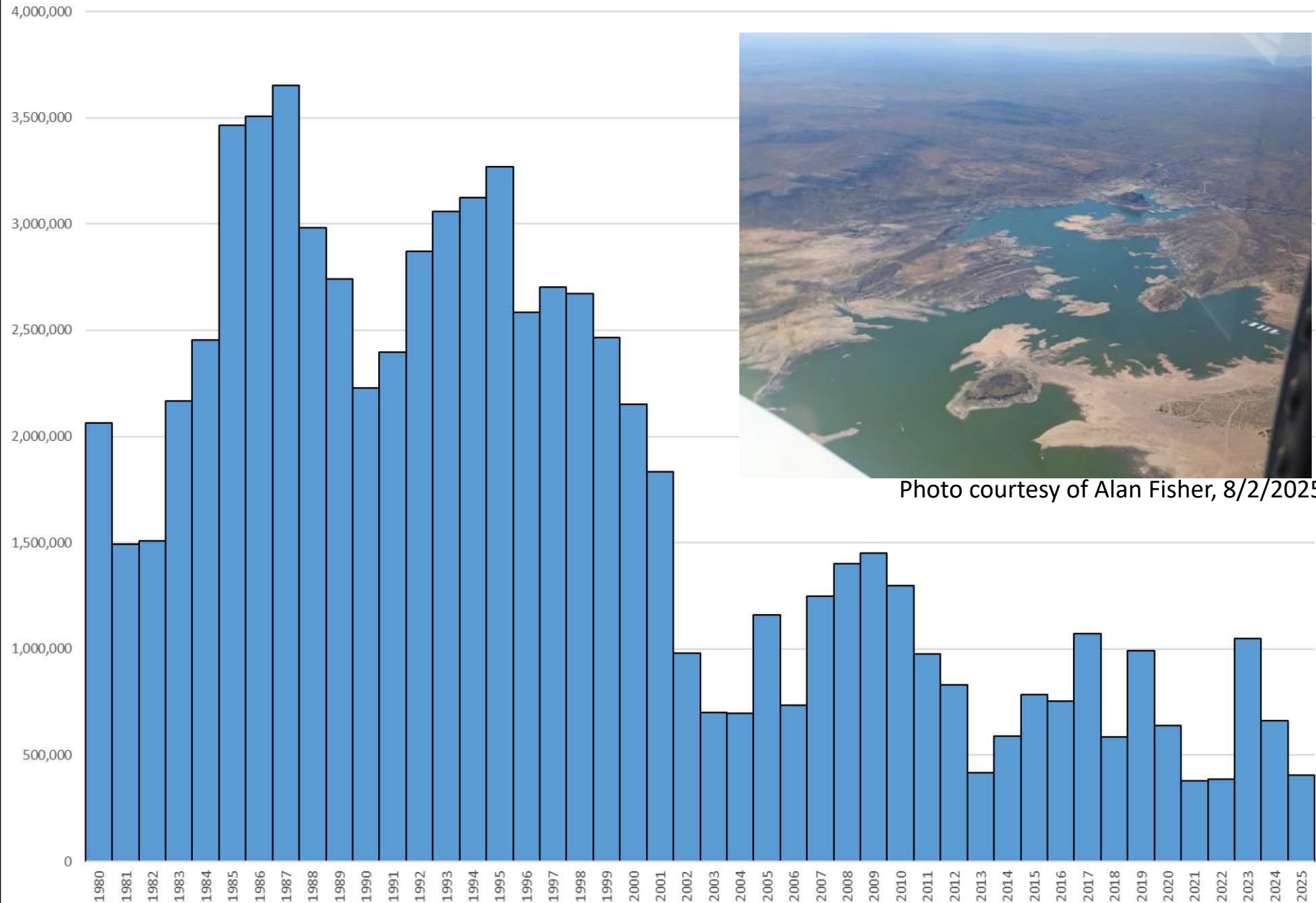


Headwaters of Rio Grande 2025 SWE



Rio Grande Basin Large Reservoir Storage in New Mexico (6 reservoirs)

June End-of-Month Storage (acre-feet)

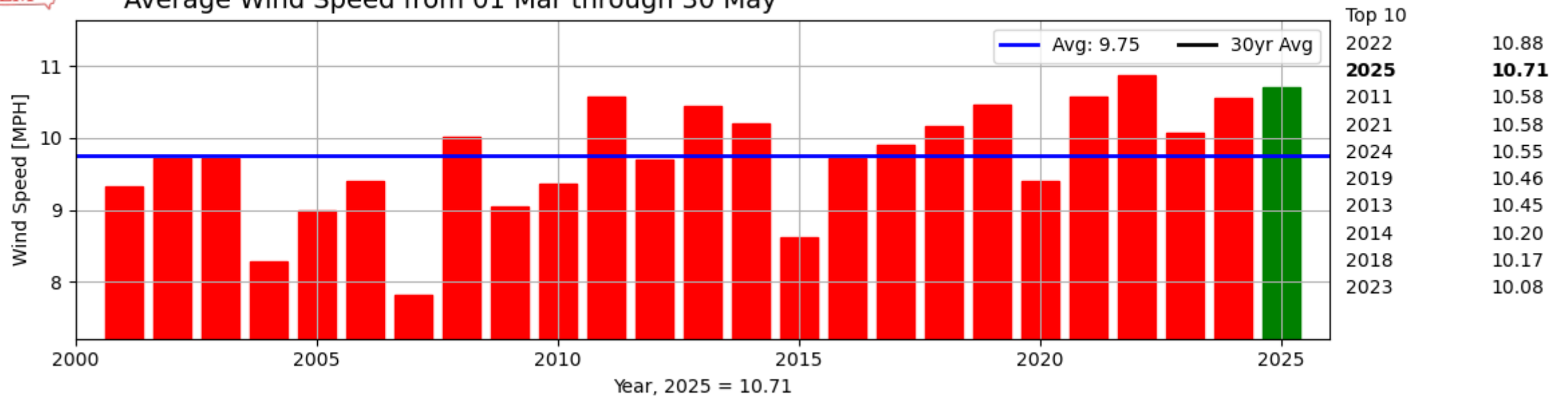


Spring 2025 winds at a glance

- Average wind speed at Las Cruces airport 2nd highest in last 25 years over spring (March to May)



[LRU] LAS CRUCES INTL
Average Wind Speed from 01 Mar through 30 May



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Very active spring dust storm season

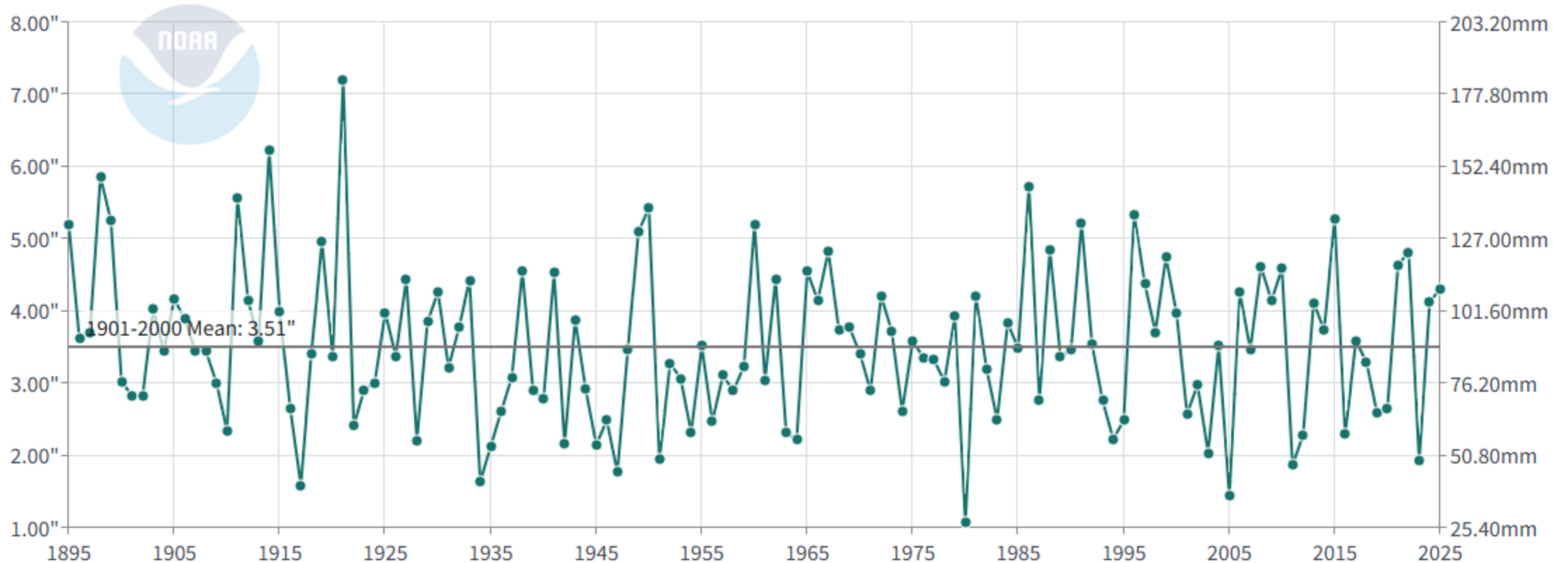
- NWS forecast offices covering New Mexico include Albuquerque (ABQ), Santa Teresa (EPZ) and Midland (MAF).
- Across all forecast offices, a total of 199 dust storm warnings were issued in 2025 state-wide (as of July 14)
- On average only 4 have been issued over the past 25 years.
- The last four years have seen an increase up to 41 in 2024
- From the NMED air quality network there were 12 days in 2025 that were classified as hazardous for the PM10 Air Quality Index
 - This is the highest number of hazardous days over the last 20 years



NM June-July rainfall 1895-2025

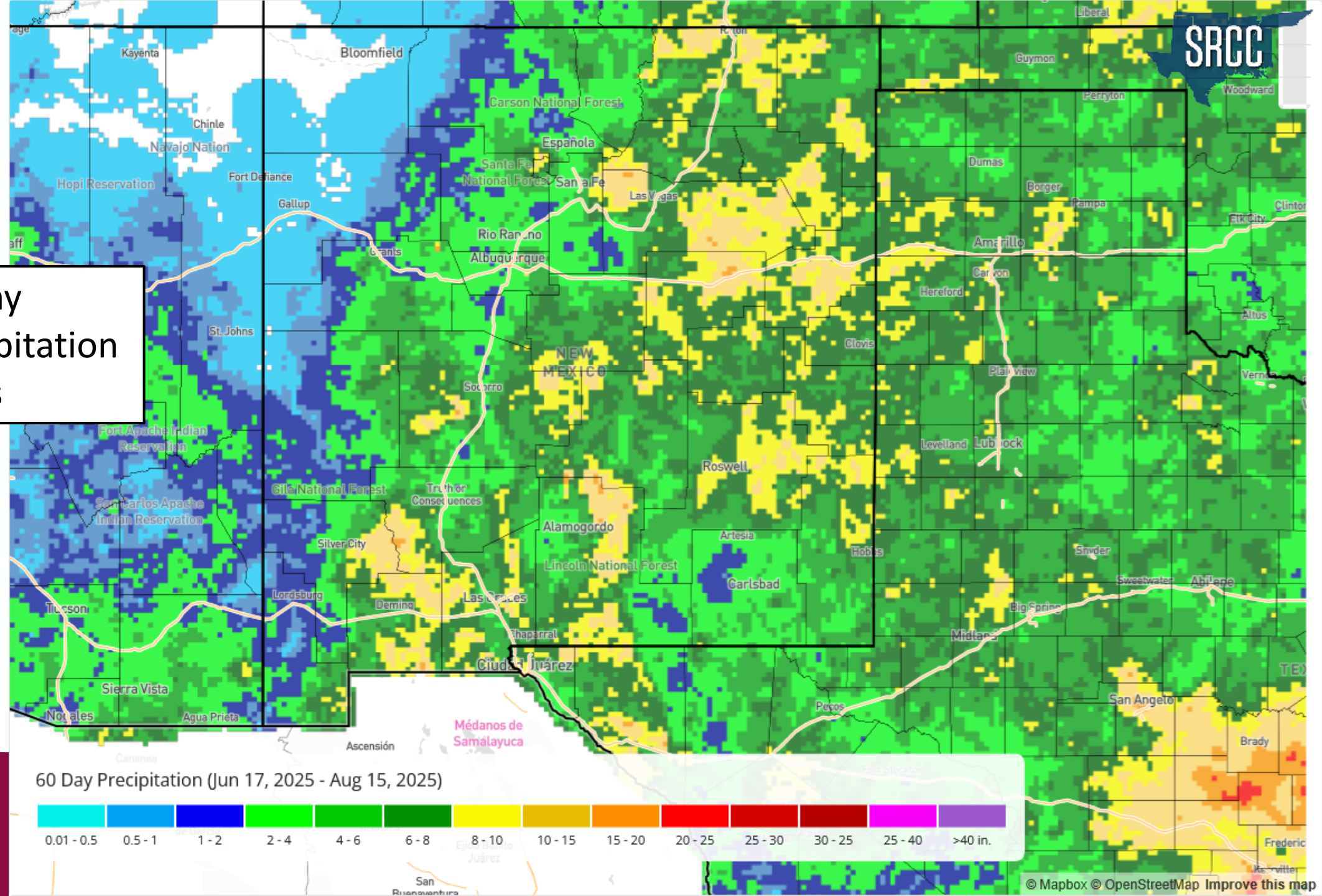
New Mexico Precipitation

June-July

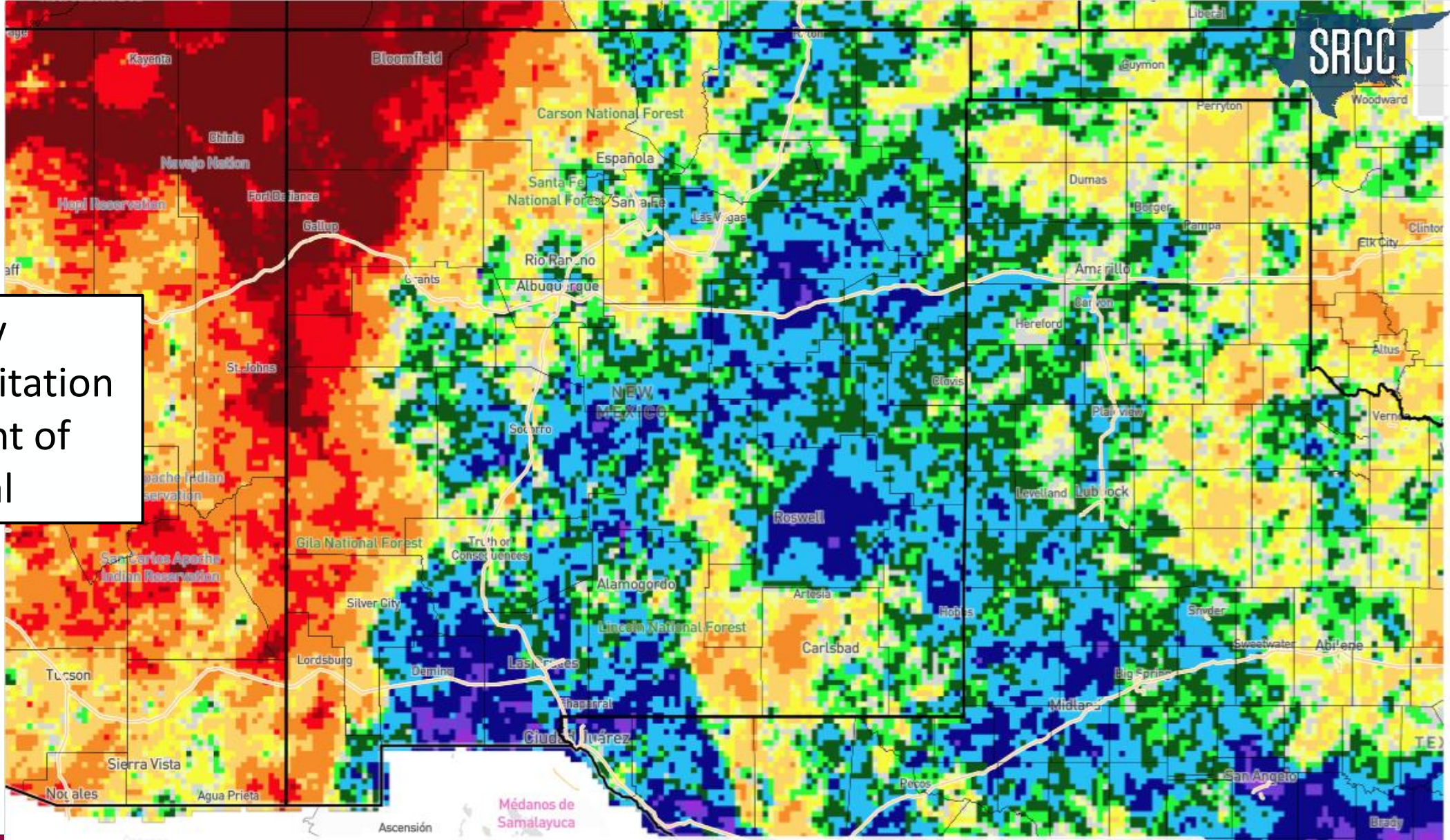


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60-day
precipitation
totals



60-day precipitation percent of normal



60 Day Percent of Normal (Jun 17, 2025 - Aug 15, 2025)

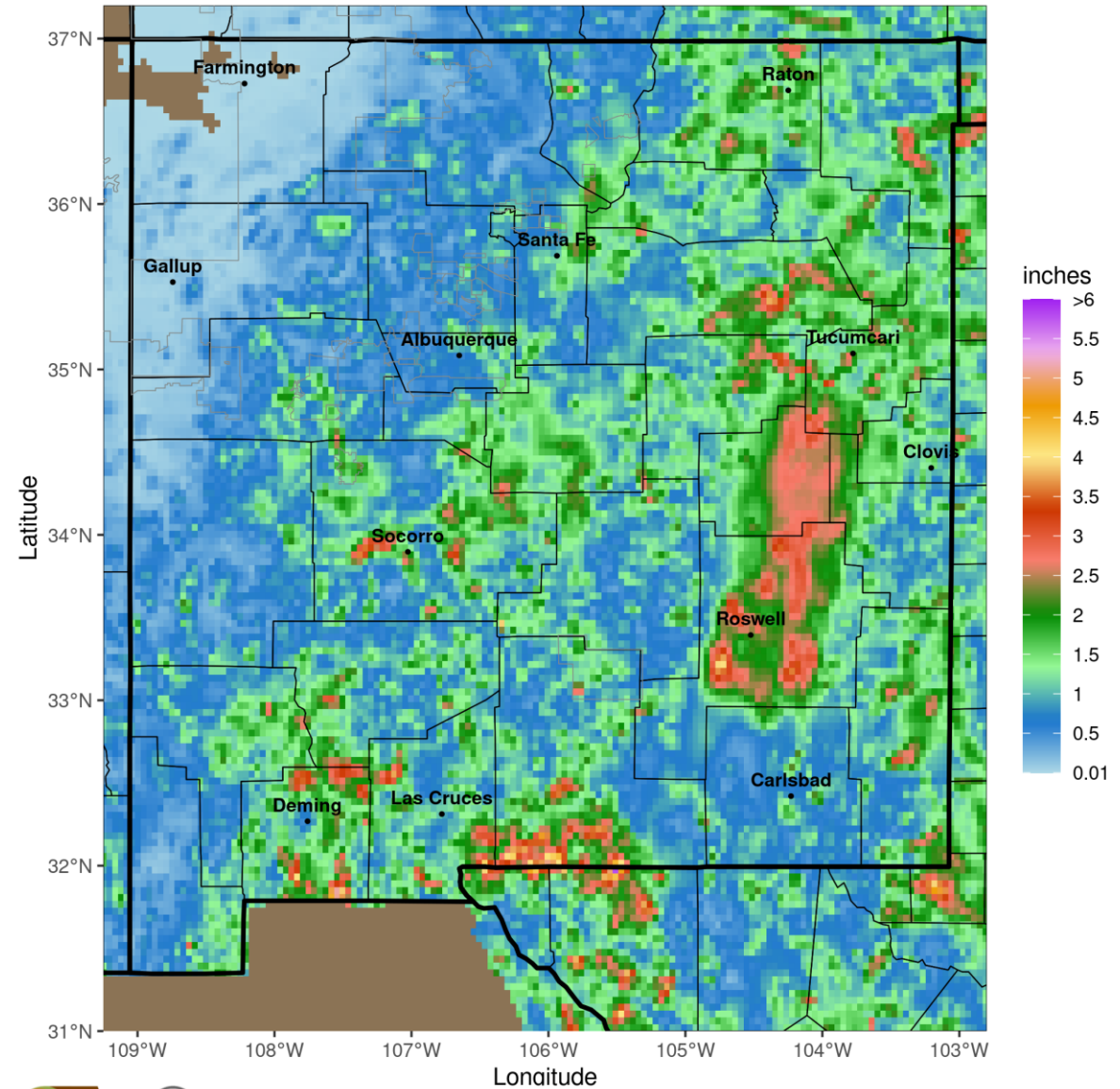


2025 monsoon started around June 23

As of August 15, there have been several areas where the daily rainfall was more than 2.5 inches

Northwest part of the state still has not seen rainfall

Max 1-day Precipitation (in.): 2025-06-15 to 2025-08-15



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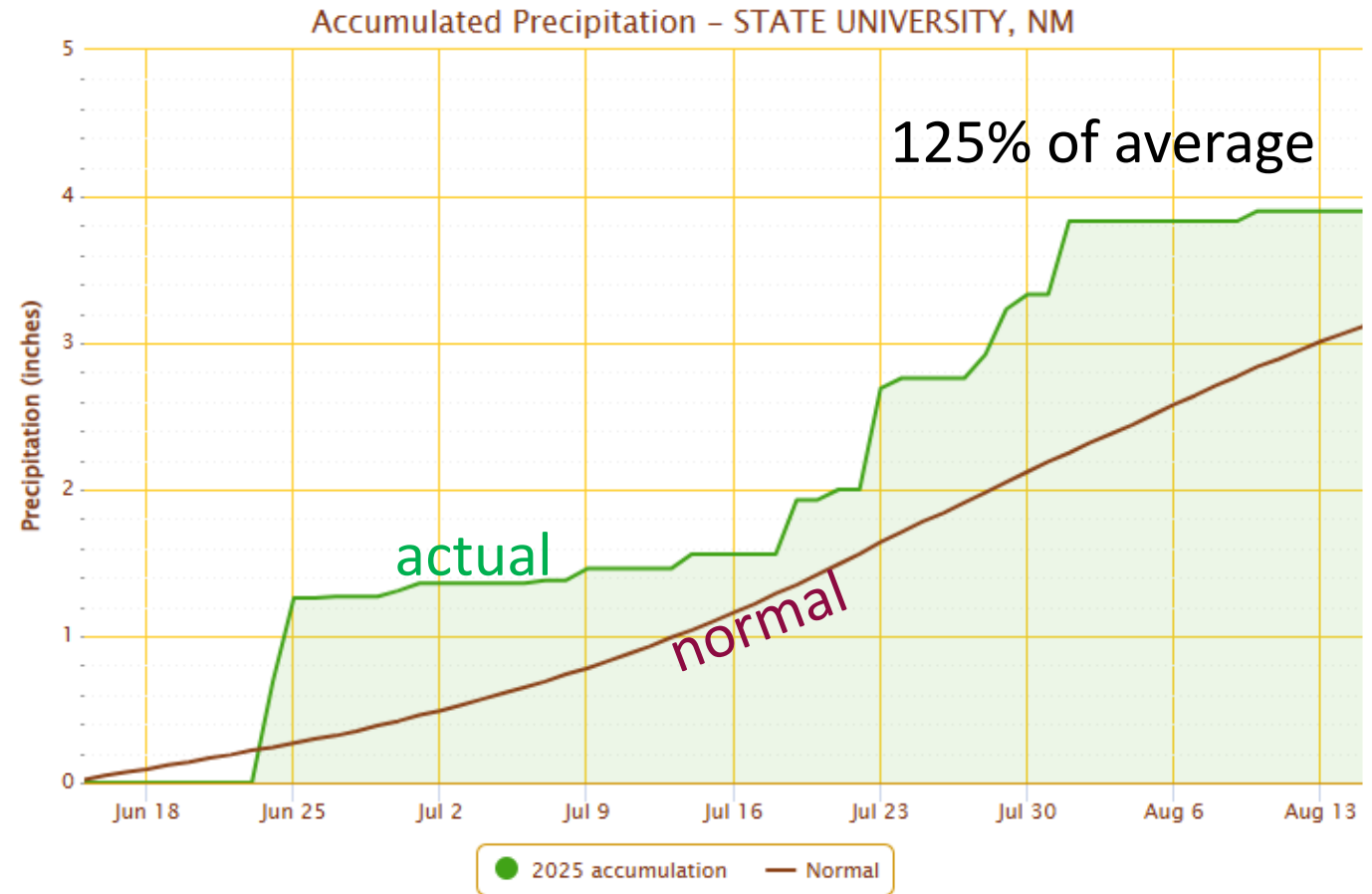
THE UNIVERSITY OF ARIZONA
Cooperative Extension

Plot created: 2025-08-15
The University of Arizona
<https://cals.arizona.edu/climate/>
Data Source: NOAA MPE Analysis
<https://water.weather.gov/precip/>

https://cals.arizona.edu/climate/misc/monsoon/nm_monsoon.html

Monsoon rainfall in Las Cruces as of 8/15

- So far 3.90" of rain have fallen at the NMSU campus since June 15
- 0.57" on June 25 to kick off the monsoon at this station

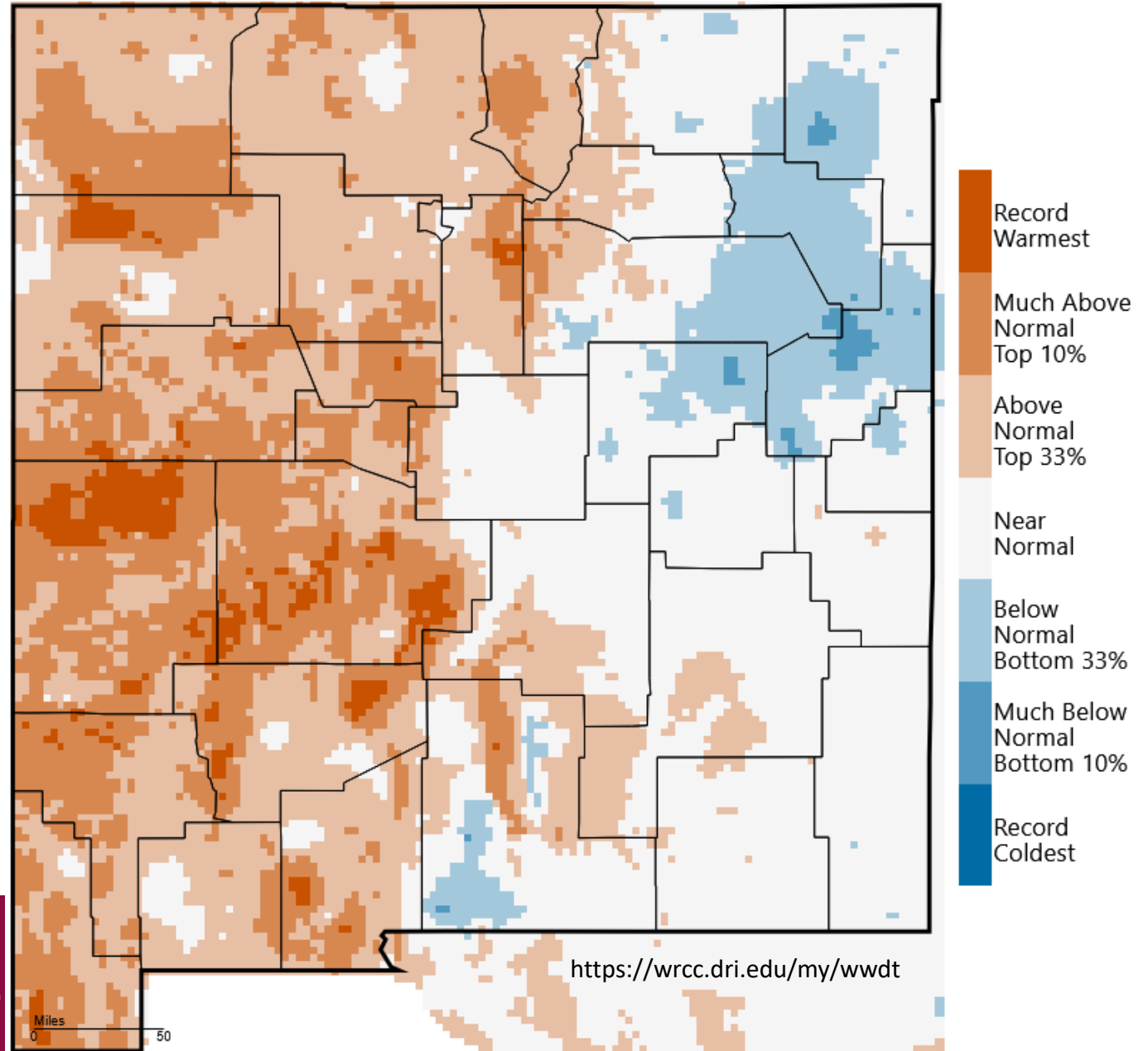


New Mexico - Mean Temperature

June - July 2025, Percentile

The June and July average temperature was above to much above average in the west.

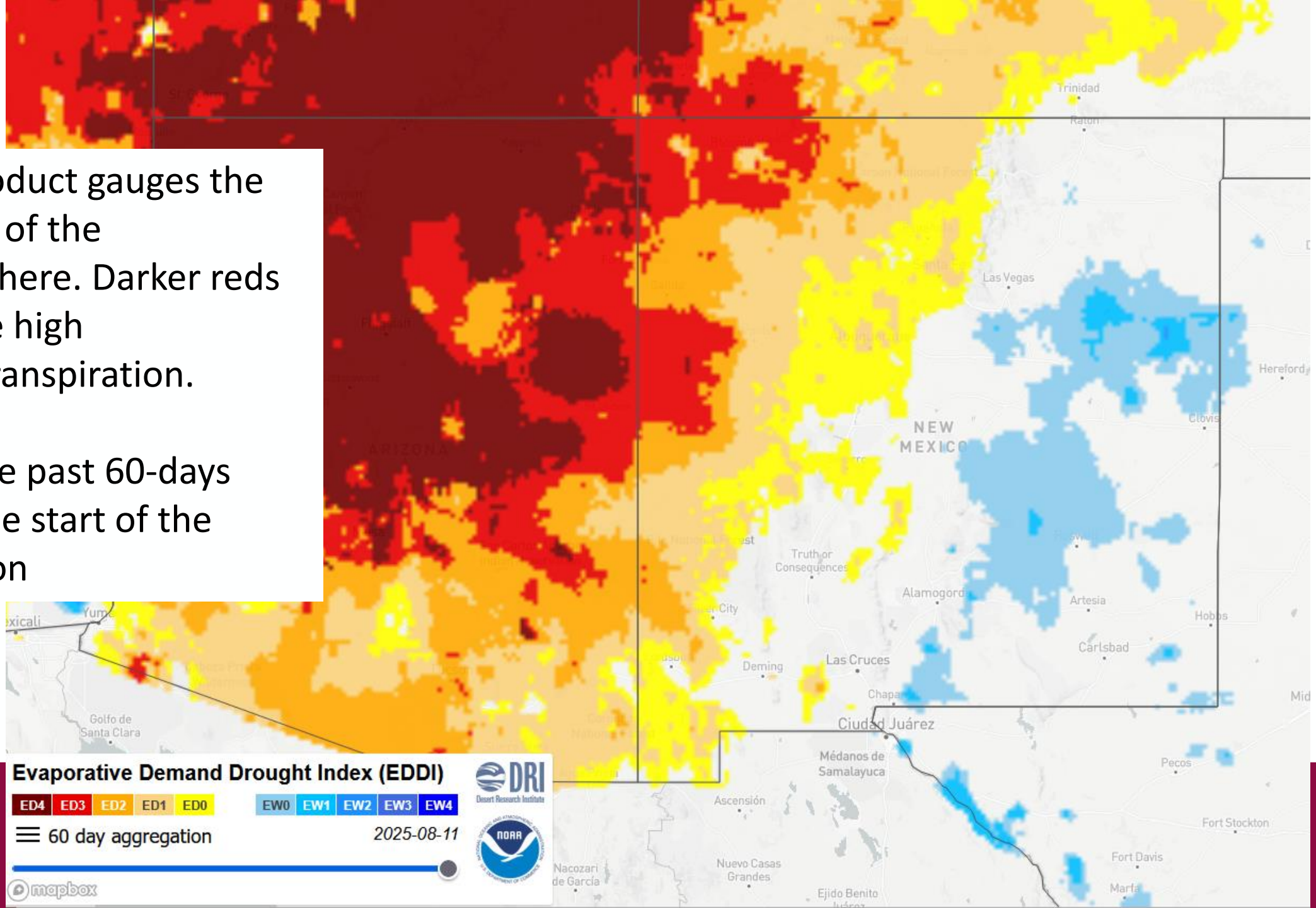
The eastern half ranged from near average to much below average.



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This product gauges the “thirst” of the atmosphere. Darker reds indicate high evapotranspiration.

Over the past 60-days since the start of the monsoon



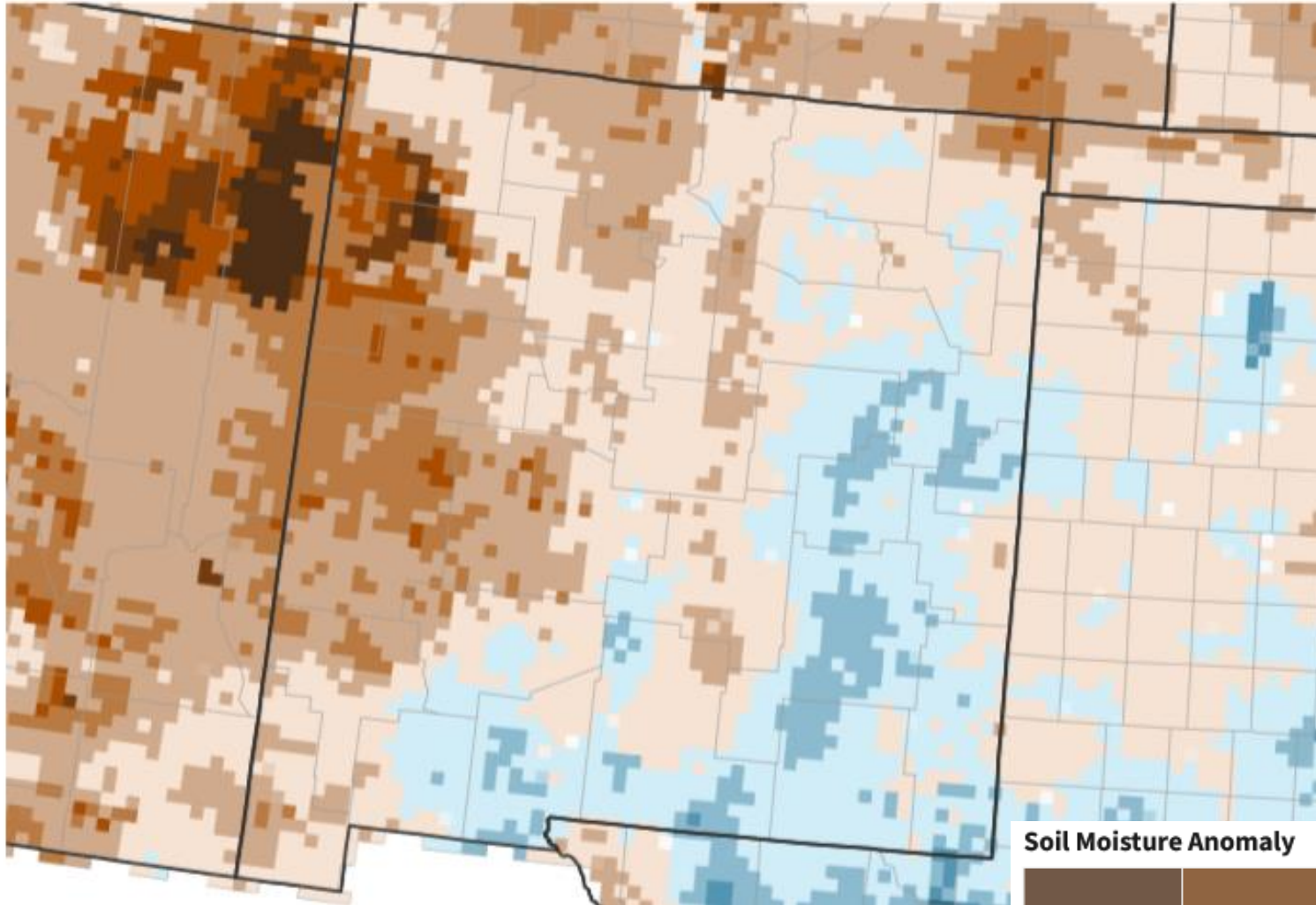
Evaporative Demand Drought Index (EDDI)

ED4 ED3 ED2 ED1 ED0 EW0 EW1 EW2 EW3 EW4

60 day aggregation 2025-08-11



Crop-CASMA Subsoil (1 Meter) Soil Moisture Anomaly



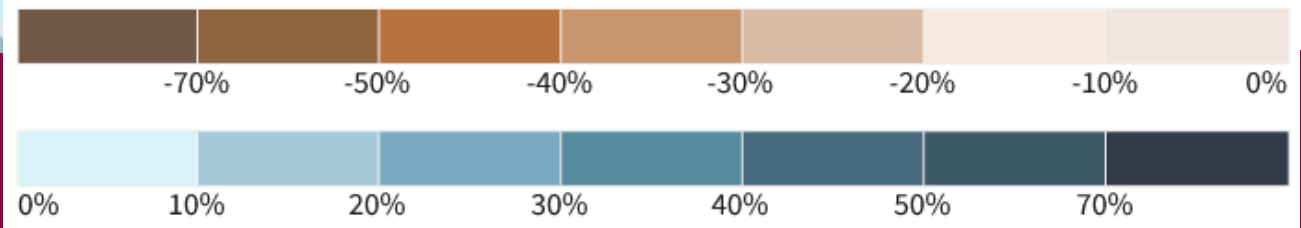
Western NM still struggling with long term drought while the east showing wet conditions.

Soil moisture based on NASA Soil Moisture Active Passive (SMAP) and MODIS satellite data

Source(s): NASA, USDA, George Mason University

Data Valid: 08/10/25

Soil Moisture Anomaly



<https://www.drought.gov/topics/soil-moisture>



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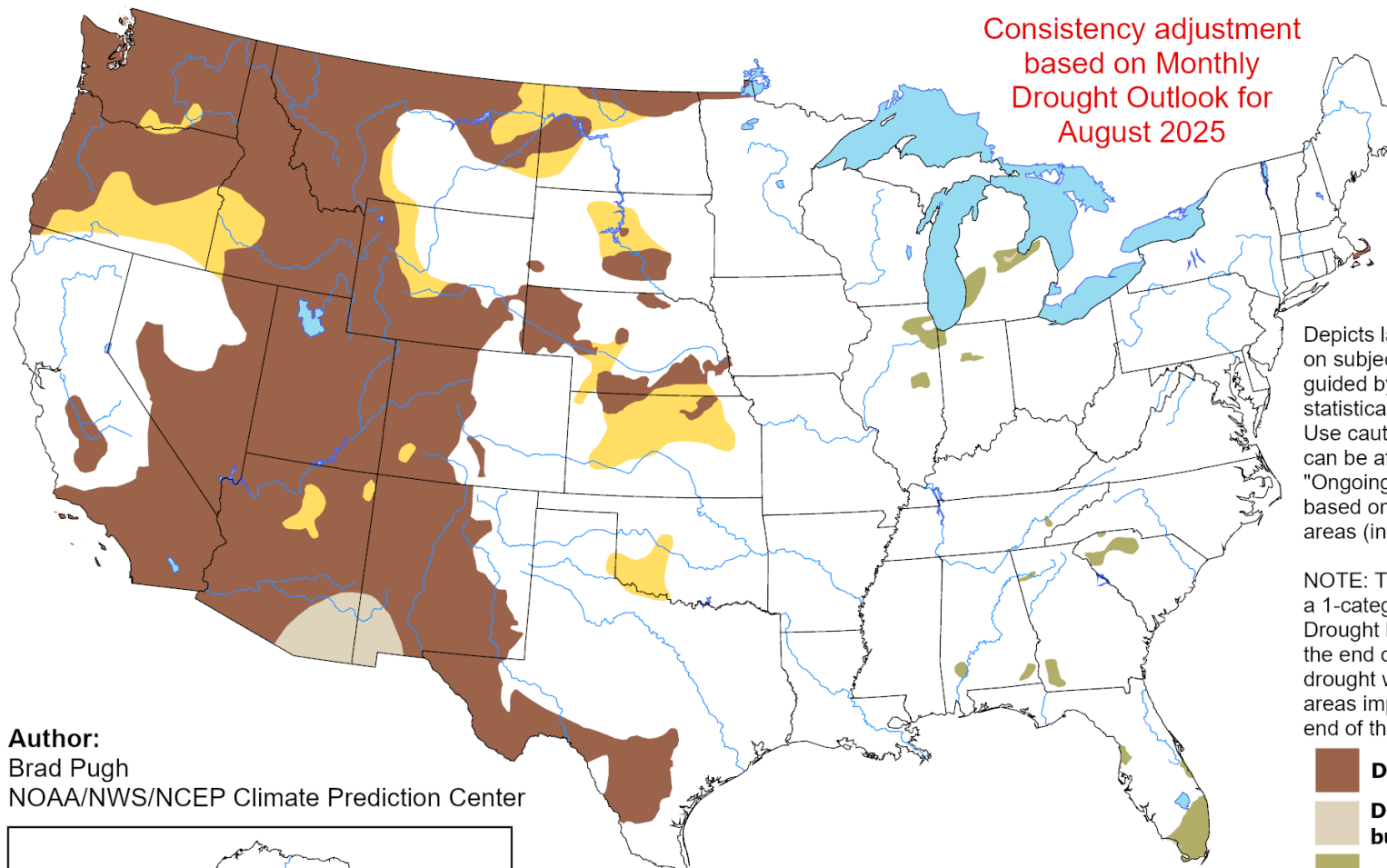
U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for August 1 - October 31, 2025

Released July 31, 2025

Drought is here to stay at least through the fall for large parts of the state



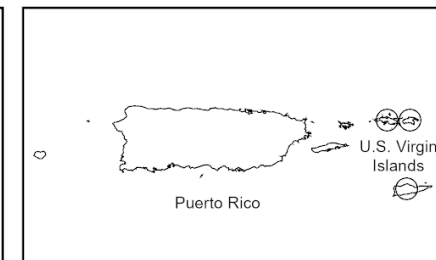
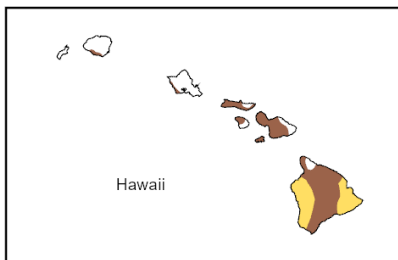
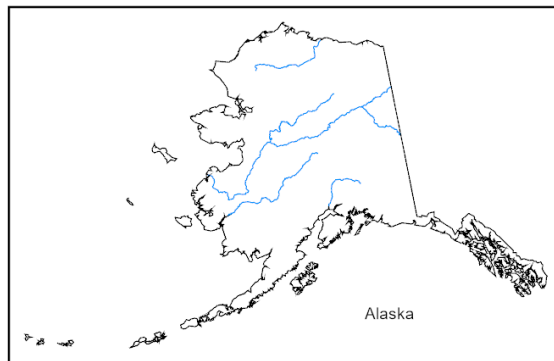
Consistency adjustment based on Monthly Drought Outlook for August 2025

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Brad Pugh
NOAA/NWS/NCEP Climate Prediction Center

- Drought persists
- Drought remains, but improves
- Drought removal likely
- Drought development likely
- No drought



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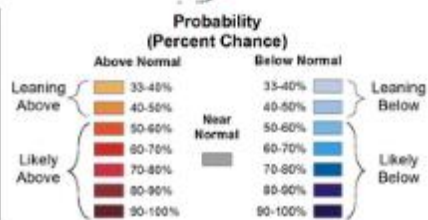
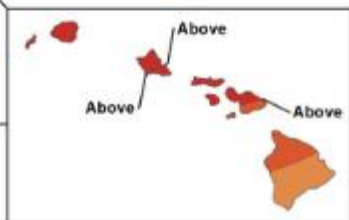
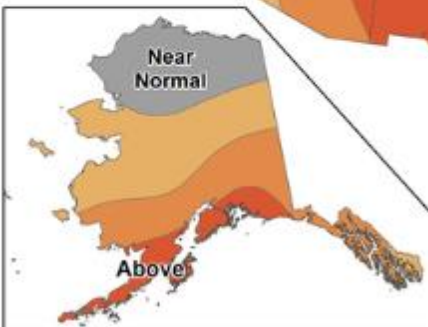
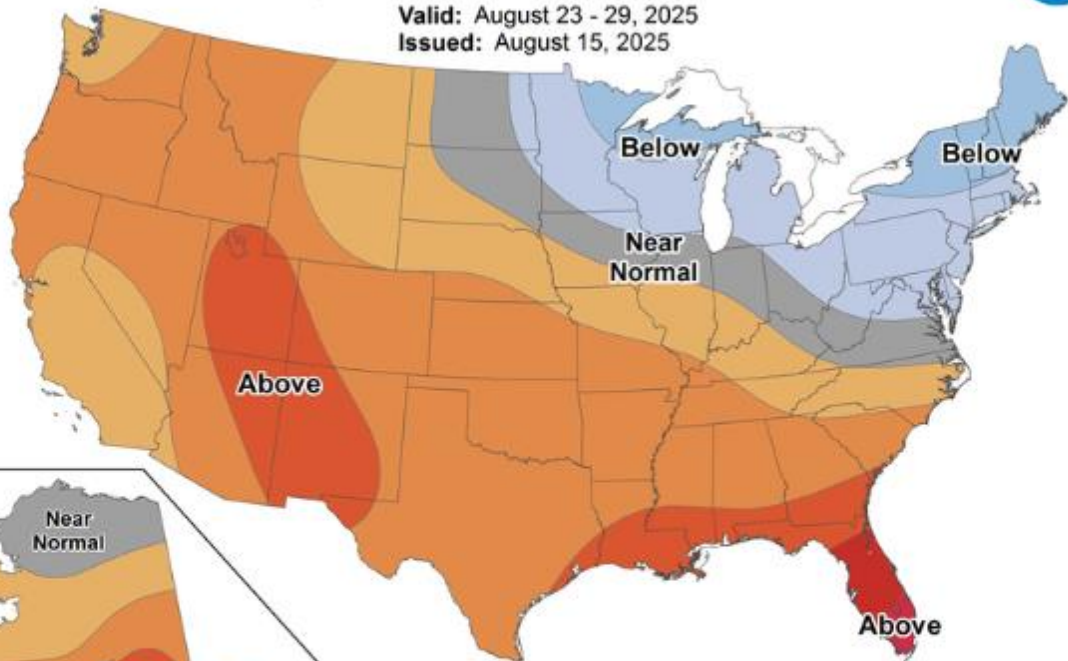
<https://go.usa.gov/3eZ73>



8-14 Day Temperature Outlook



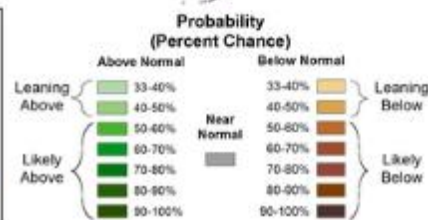
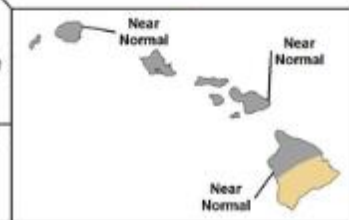
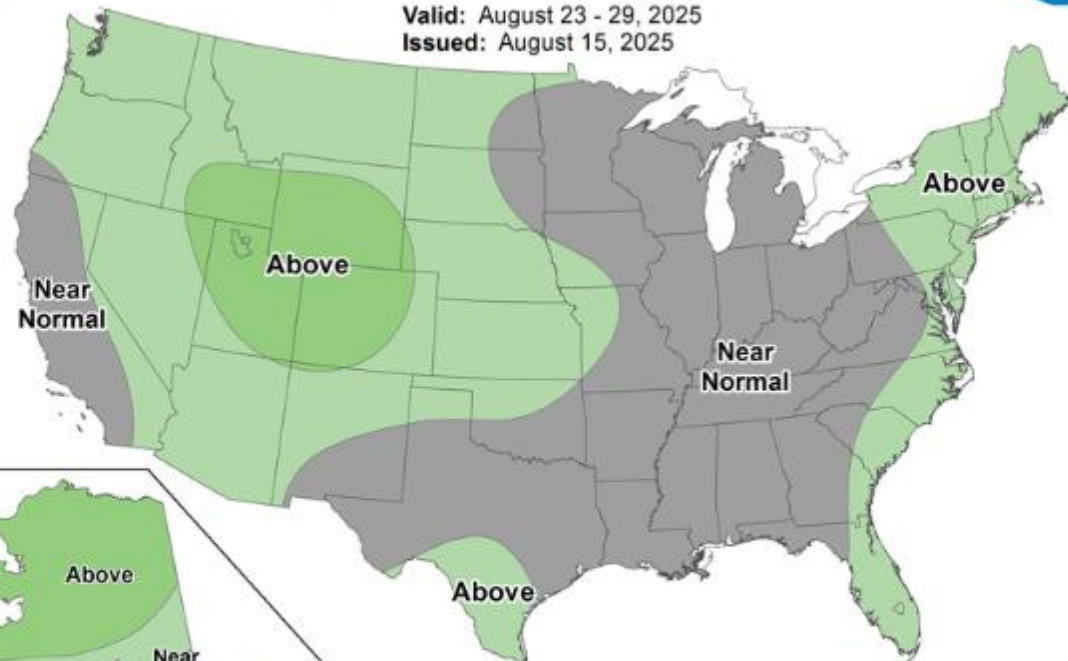
Valid: August 23 - 29, 2025
Issued: August 15, 2025



8-14 Day Precipitation Outlook



Valid: August 23 - 29, 2025
Issued: August 15, 2025



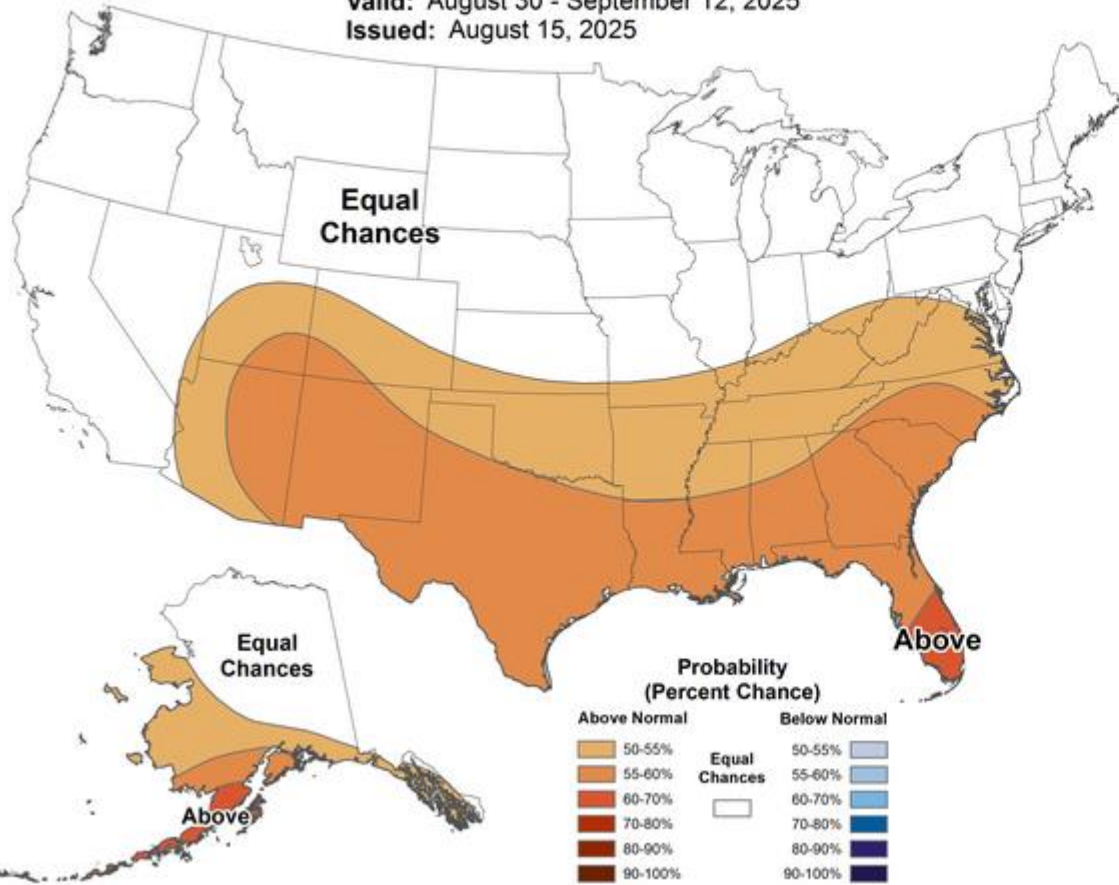
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Weeks 3-4 Temperature Outlook



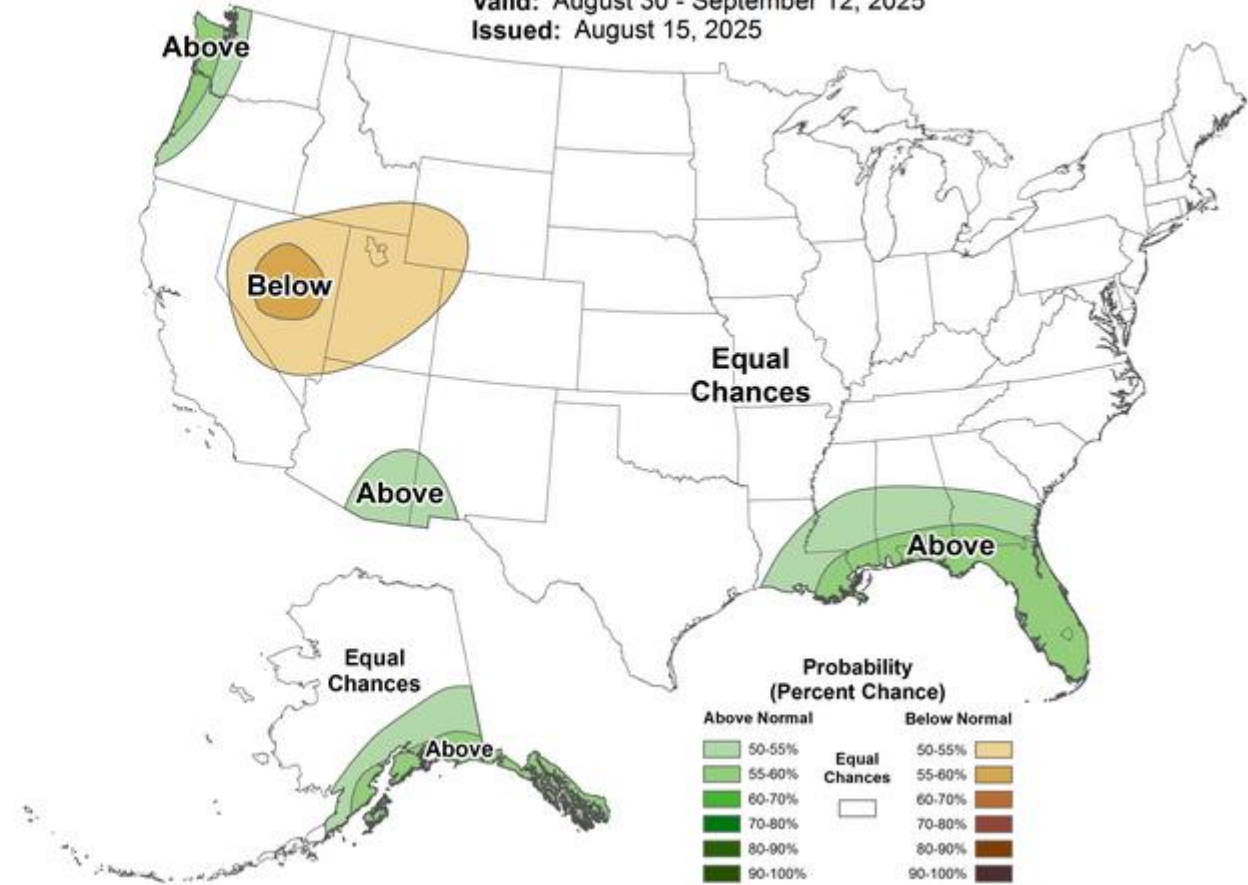
Valid: August 30 - September 12, 2025
Issued: August 15, 2025



Weeks 3-4 Precipitation Outlook



Valid: August 30 - September 12, 2025
Issued: August 15, 2025



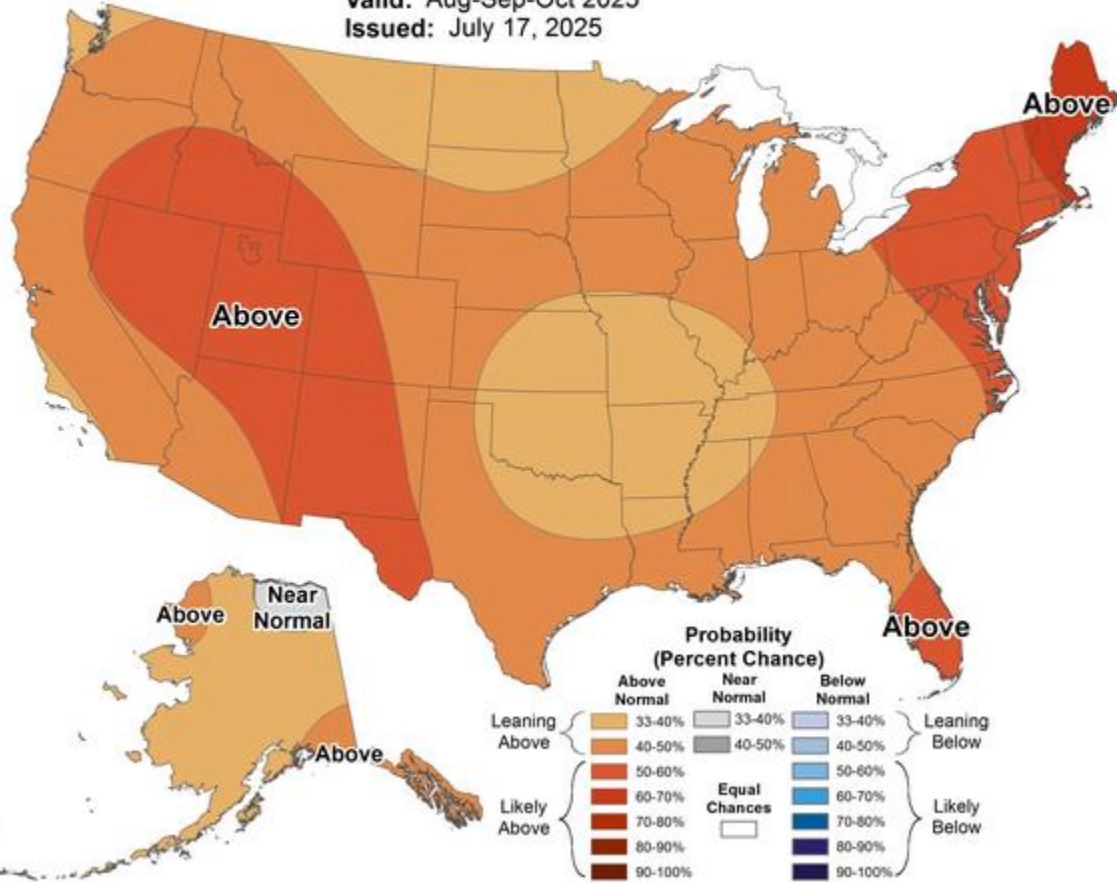
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Seasonal Temperature Outlook



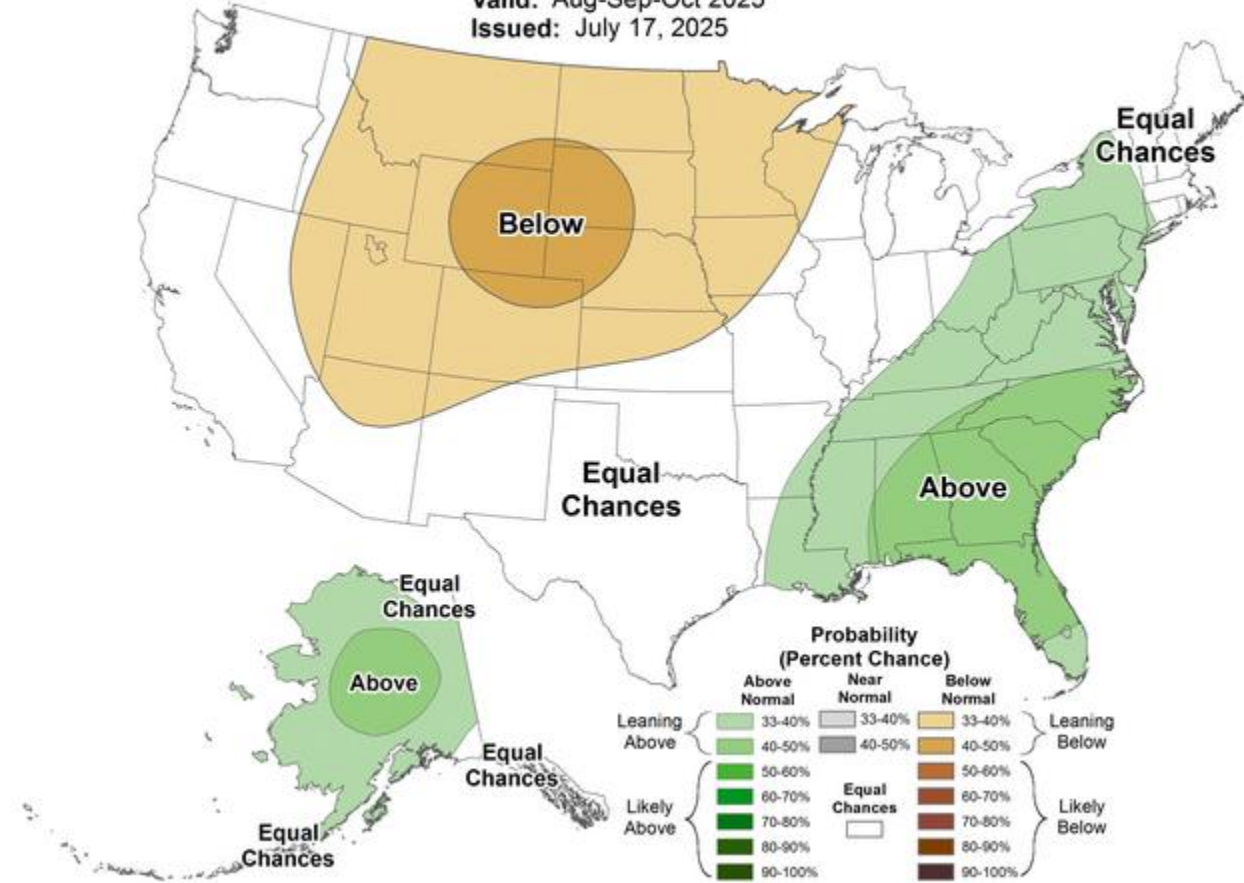
Valid: Aug-Sep-Oct 2025
Issued: July 17, 2025



Seasonal Precipitation Outlook



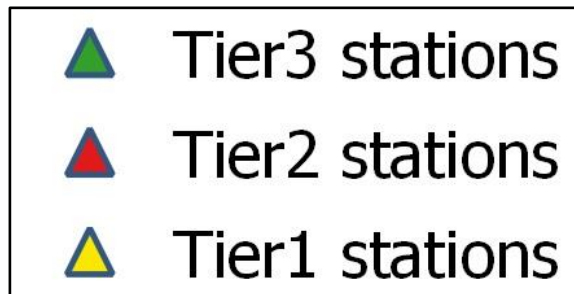
Valid: Aug-Sep-Oct 2025
Issued: July 17, 2025



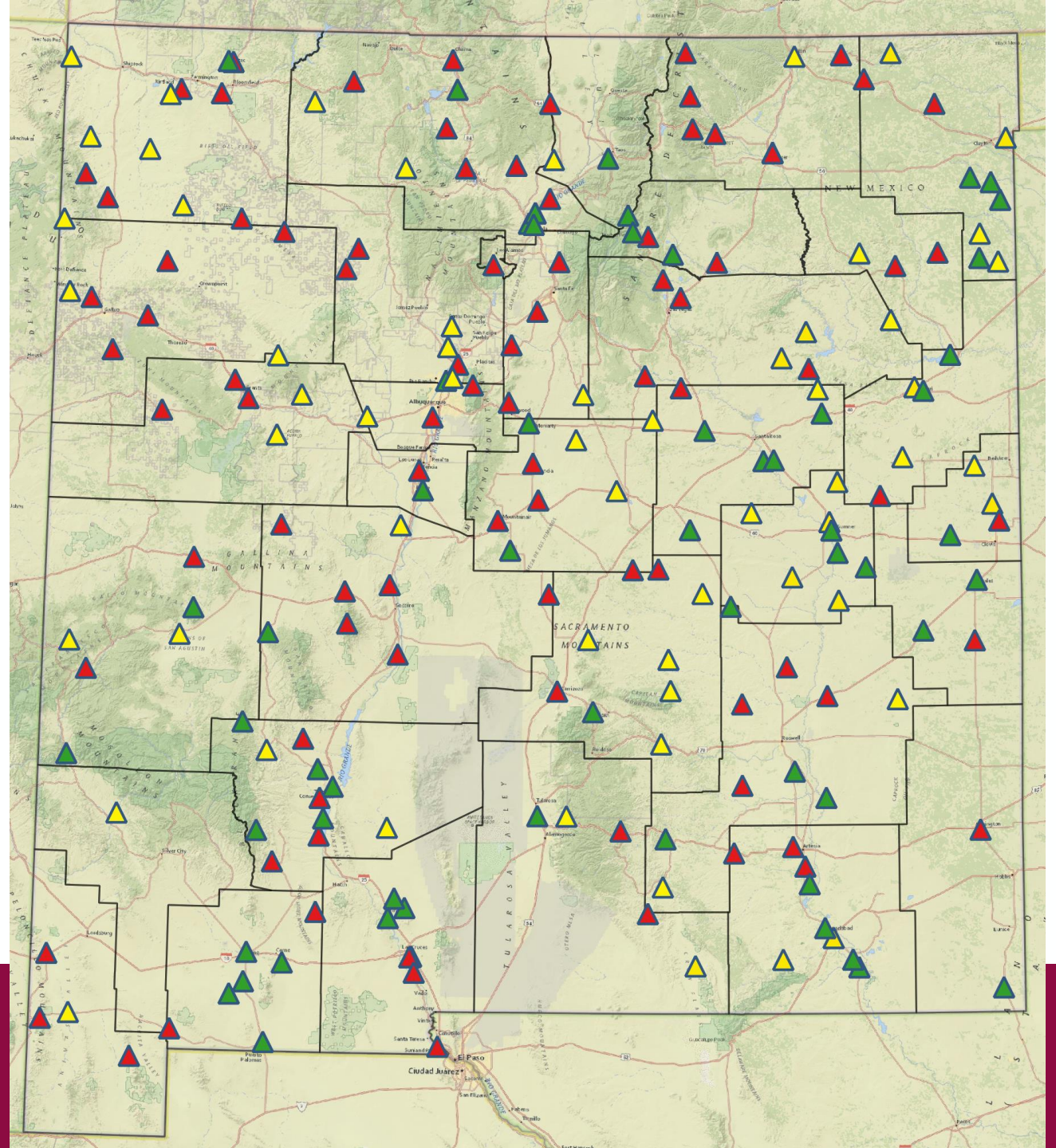
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ZiaMet weather network

Expanded from 31 to more than 200 stations with NM state legislative and US federal funds.



weather.nmsu.edu



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ZiaMet tier 1 weather station at White Rock Chapter House

Cellular high gain antenna

Temperature and relative humidity

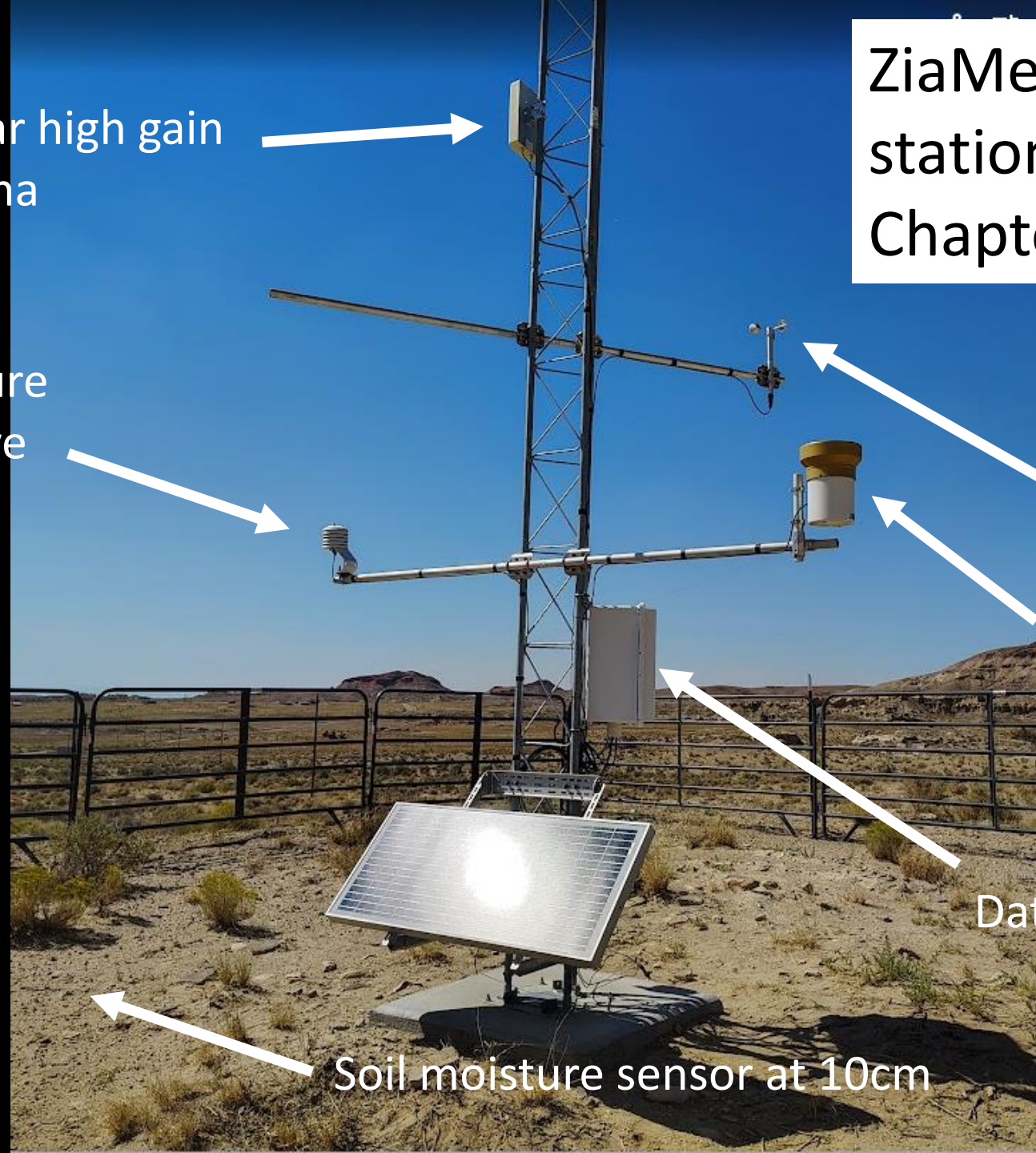
Wind speed

Rain gauge

Datalogger

We collect data every 5-minutes and sent to internet

Soil moisture sensor at 10cm



ZiaMet deployment status

- All stations except Fort Bayard are built (pending security fence)
- There are 136 stations currently available for NOAA to ingest
 - We will make available 150+ stations available for ingest by the end of August
 - We will shoot for 200 stations by the beginning of November
- We manually check stations for bad data before we make them available to NOAA



Contact Information

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