Santa Cruz Basin Seasonal Climate Bulletin

August 2026

Data Available as of August 7, 2026

Given increasing climate variability in recent years, including weather patterns distinct from that of our ancestors, our team gathered around a question raised by basin leaders, **“how do we get the best climate data to inform our water management and agricultural decisions?”**. The climate information in this report was tailored to inform the water management decisions being made in the Santa Cruz basin by acequias and Santa Cruz Irrigation District (SCID) with as much geographically specific data as possible.

Highlights—August 2026

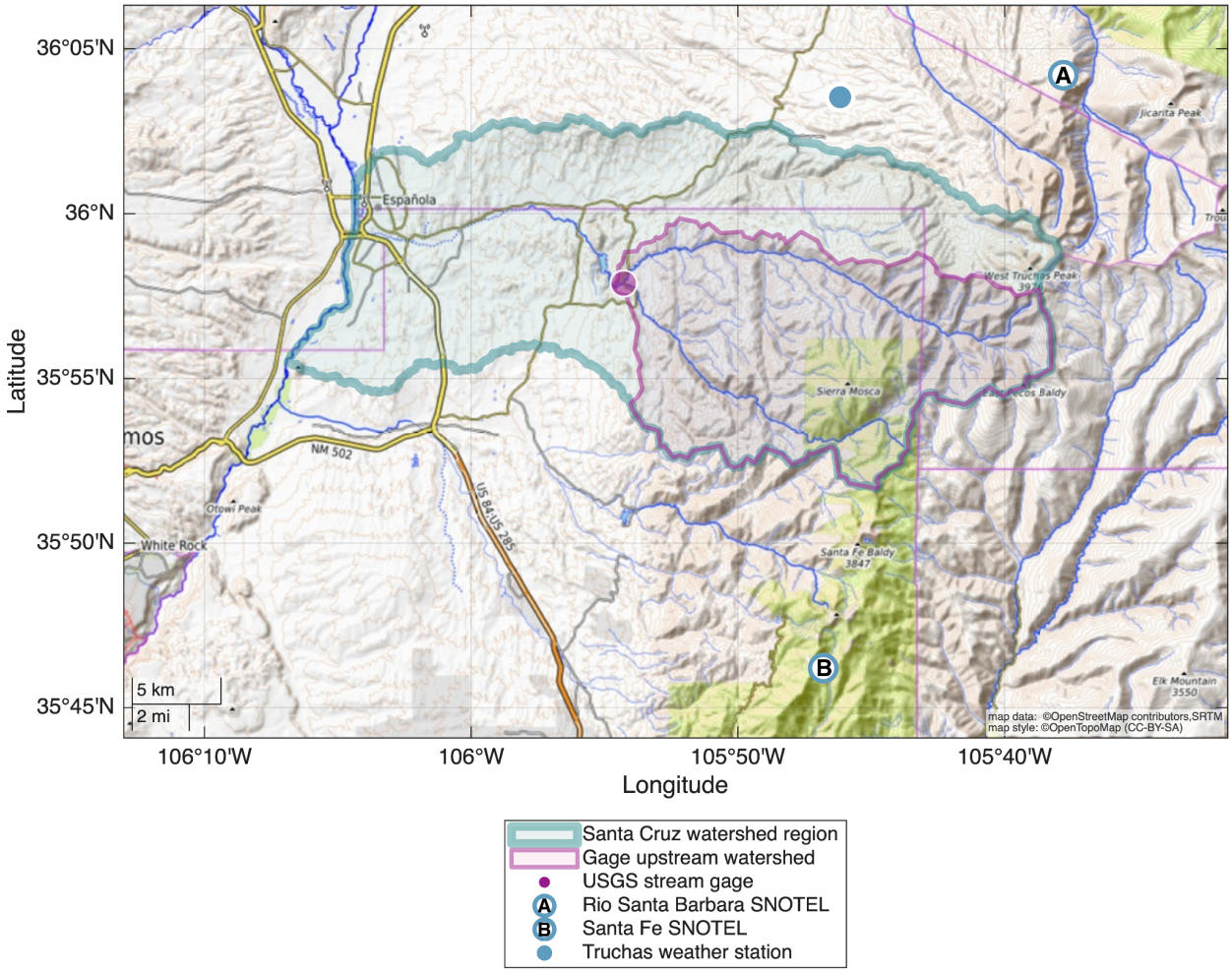
- **July was unusually hot and dry—**compared to past years, July precipitation was much-below normal and temperatures averaged much-above normal.
- **Santa Cruz River streamflow has been below normal—**July streamflow volume was about the same as in July 2018. Unlike this year, precipitation in July 2018 was much-above normal, however it had negligible impact on streamflow.
- **Seasonal forecasts for the upcoming months lean toward wetter-than-normal** and warmer-than-normal conditions.
- **Longer-term forecasts** indicate El Niño conditions are likely to persist through the end of the year, which would mean greater chances of above-normal precipitation, fall 2026–spring 2027.

This report is brought to you through the collaboration of:

A special thanks for the leadership and insights of the:
Santa Cruz Irrigation District,
Rio Quemado, Rio en Medio, Rio Frijoles, Rio Santa Cruz Stream Systems Acequia Association, and Greenroots Institute
These entities shared the relevant questions, data points and feedback to make this report viable.

Santa Cruz Region

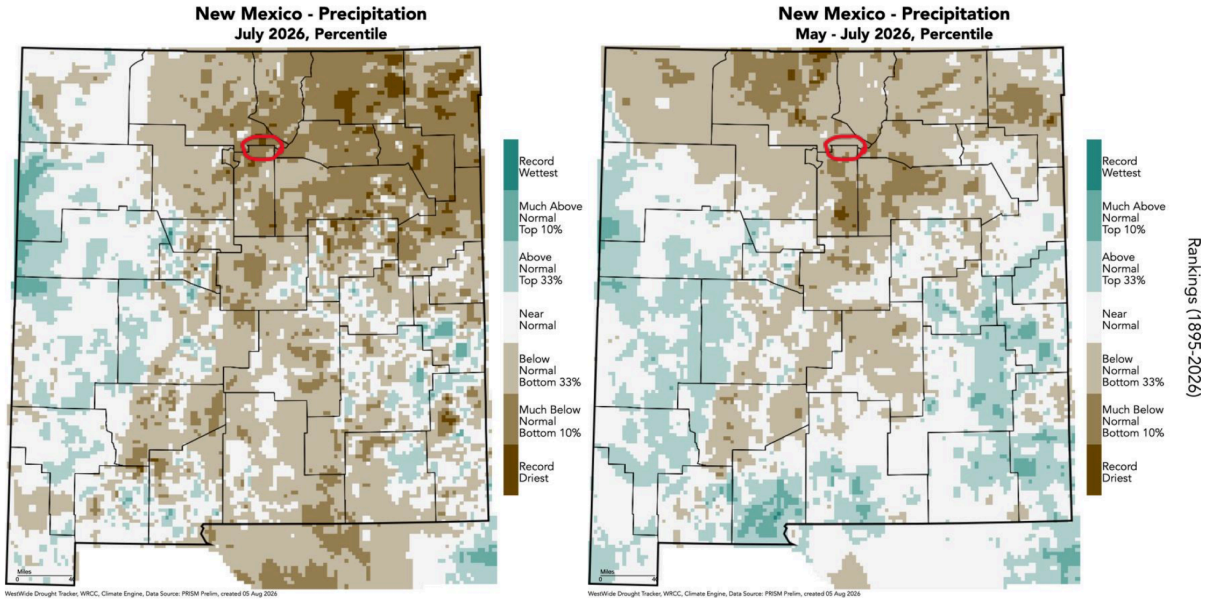
The map below shows the extent of the Santa Cruz watershed region and the locations of stations providing data for this bulletin: USGS stream gauge (contributing watershed also shown); snow telemetry (SNOTEL) stations at the Rio Santa Barbara, Santa Fe, and Tres Ritos sites; and the Truchas weather station.



The Truchas weather station, and the Santa Fe and Rio Santa Barbara snow telemetry (SNOTEL) stations are located outside of the Santa Cruz catchment area, but they are close enough to capture information that reflects conditions within the catchment.

Precipitation

Recent precipitation influences expected flow into the Santa Cruz reservoir, availability for releases, streamflow, and soil moisture. The maps below show how recent monthly and three-month precipitation totals compared against past years in the climate record. ***Areas colored white had near-normal precipitation*** *(totals ranking among the middle third the rankings),* ***areas colored brown had below-normal precipitation*** *(in the bottom third of the rankings),* ***green areas indicate above-normal precipitation*** *(in the upper third of the rankings),* ***and darker shades indicate totals closer to either extreme of the rankings.*** *The table below lists the monthly and three-month totals measured at nearby stations, and also lists the total for the current water year (October–September) in progress.*



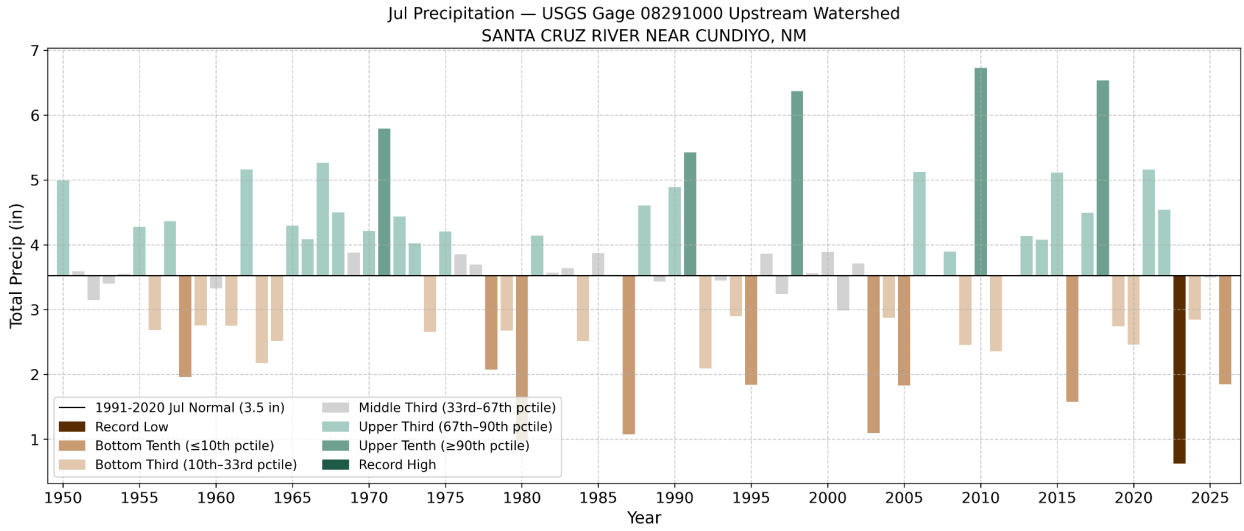
Station Observed Precipitation

Station	July total	July % of normal	May–July total	May–July % of normal	Water year (Oct 2025–Jul 2026) total	Water year % of normal
Truchas	1.6 in.	56%	4.5 in.	91%	10 in.	63%
Santa Fe SNOTEL	2.5 in.	61%	5.8 in.	89%	17.5 in.	65%
Rio Santa Barbara SNOTEL	2.9 in.	-	6.0 in.	-	15.8 in.	-

July: 1.6 inch of rain at the Truchas weather station—56% of normal for July.
July precipitation within the Santa Cruz region ranged from below normal to much-below normal, depending on location, with precipitation at nearby gauged sites ranging from 56% of normal to 61% of normal June totals.
Water year to date: 10 inches of rain at the Truchas weather station.
Total precipitation for the water year so far is 63% of normal at the Truchas weather station and 65% of normal at the Santa Fe SNOTEL site.

Historical context: precipitation

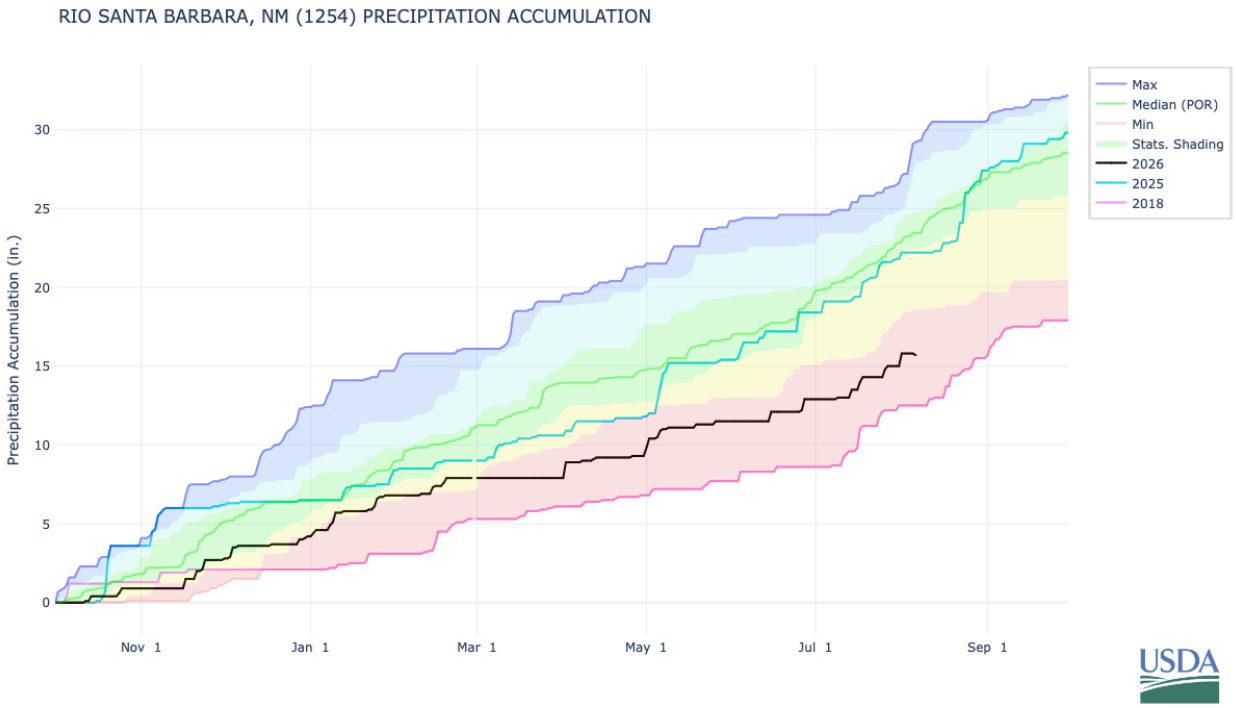
*The chart below shows July precipitation totals for each year, 1950–2026. The values are plotted relative to the long-term (1991–2020) median. Colors highlight whether precipitation was near normal, below normal, above normal, much-below normal, much-above normal, a **record low,** or a **record high**. Values represent a spatial average of precipitation within the Santa Cruz catchment area above the streamgage.*



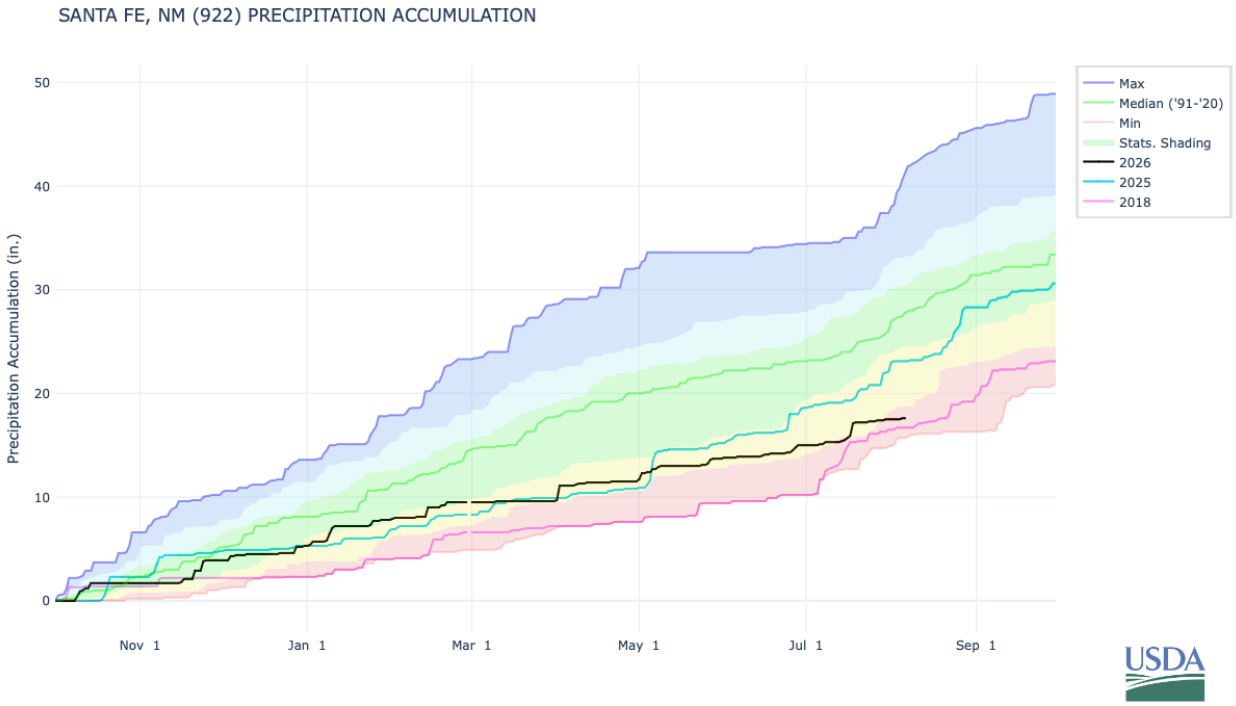
Santa Cruz regional-average total precipitation in July was much-below normal. Normal (median July total across all years 1991–2020) is about 3.5 inches, but this July's total was less than 2 inches.

Precipitation progress over the water year (SNOTEL)

The Rio Santa Barbara and Santa Fe SNOTEL stations are the nearest snowpack-measurement sites relative to the Santa Cruz watershed. SNOTEL sites record precipitation year-round, in addition to tracking snowpack over winter. The plots below show daily precipitation accumulation over the course of the water year (beginning in October), and how it compares to the range of values for daily accumulated precipitation for all years in the record of observations—from the ***record minimum (red line)*** *to the* ***record maximum (dark blue line)****. The* ***green line shows the median, or normal, accumulated precipitation****, and* ***values falling within the green shading are considered near normal****.*



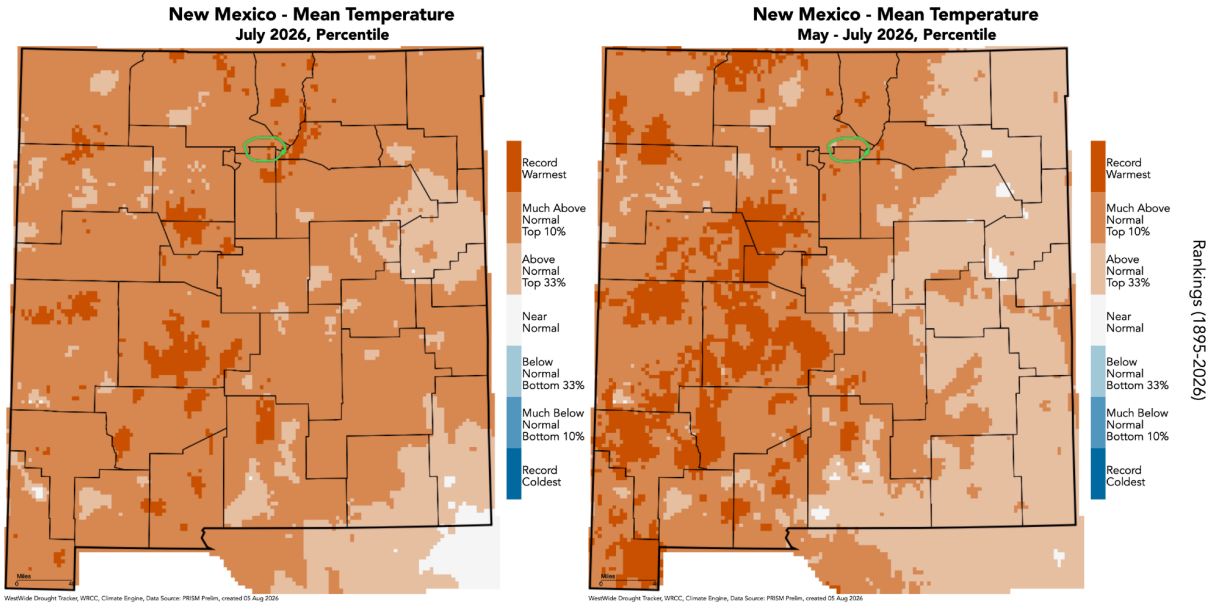
Total precipitation since October at the Rio Santa Barbara SNOTEL site is much below normal for this time of year (black line). As of August 6, water-year total precipitation was 67% of normal for that date. The chart also shows that last year (teal line) precipitation was closer to normal for this date, and 2018 (magenta line) was the driest on record at the Rio Santa Barbara SNOTEL.



Water year precipitation accumulation at Santa Fe SNOTEL station has generally been below normal (yellow shading, or falling in the bottom 30% of the records for the corresponding date) since January.

Temperature

*Seasonal temperature can influence water availability in several ways—greater evaporation and plant water use in the upstream watershed can mean less water makes its way into streams; evaporation, in the form of increased atmospheric water demand, also affects irrigation efficiency. In winter, temperatures influence the persistence of snowpack and the timing of snow melt. The maps below show how recent monthly and water-year average temperatures compare against past years in the climate record—**areas colored white had near-normal temperatures** (ranking among the middle third the rankings), **areas colored blue had below-normal temperatures** (in the bottom third of the rankings), **orange-red areas indicate above-normal temperatures** (in the upper third of the rankings), and **darker shades indicate temperatures closer to either extreme of the rankings.***

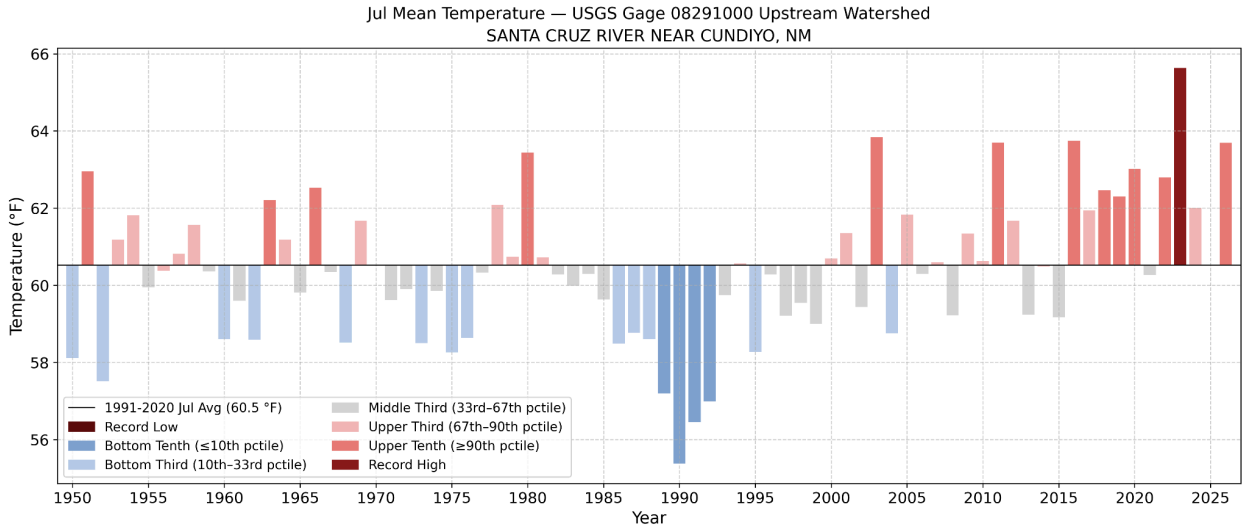


Average temperatures in July (left) were much above normal in the Santa Cruz region.

The recent three-month average (right; May–July) temperatures were also **much above normal**.

Historical context: temperature

*The chart below shows July-average temperature for each year, 1950–2026. The values are plotted relative to the long-term (1991–2020) average. Colors highlight whether temperature was near normal, below normal, above normal, much-below normal, much-above normal, a **record low,** or a **record high**. Values represent a spatial average of temperature within the Santa Cruz catchment area above the streamgage.*

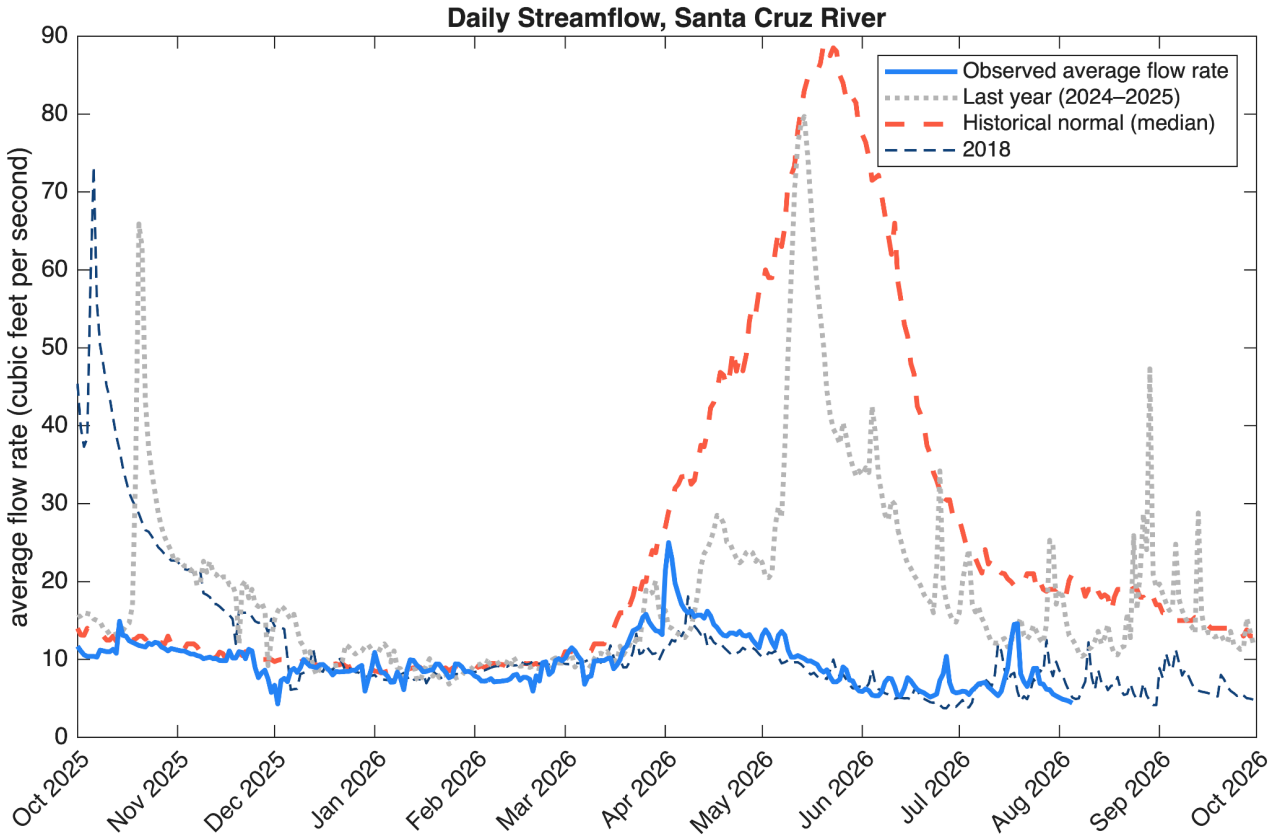


July temperatures averaged much-above normal. The historical record shows a string of years 1986–1992 with below-normal July temperatures. 2023 had the warmest July on record and the driest July on record.

Streamflow

The USGS stream gauge on the Santa Cruz river at Cundiyo measures the water flowing into the Santa Cruz Lake reservoir, the combined flow of Rio Medio and Rio Frijoles. It does not account for downstream inputs like Rio Quemado. The figure plots the daily average instantaneous rate of flow in ***Cubic feet per second (cfs)****.*

Since October 2025 (Water Year 2026 so far)

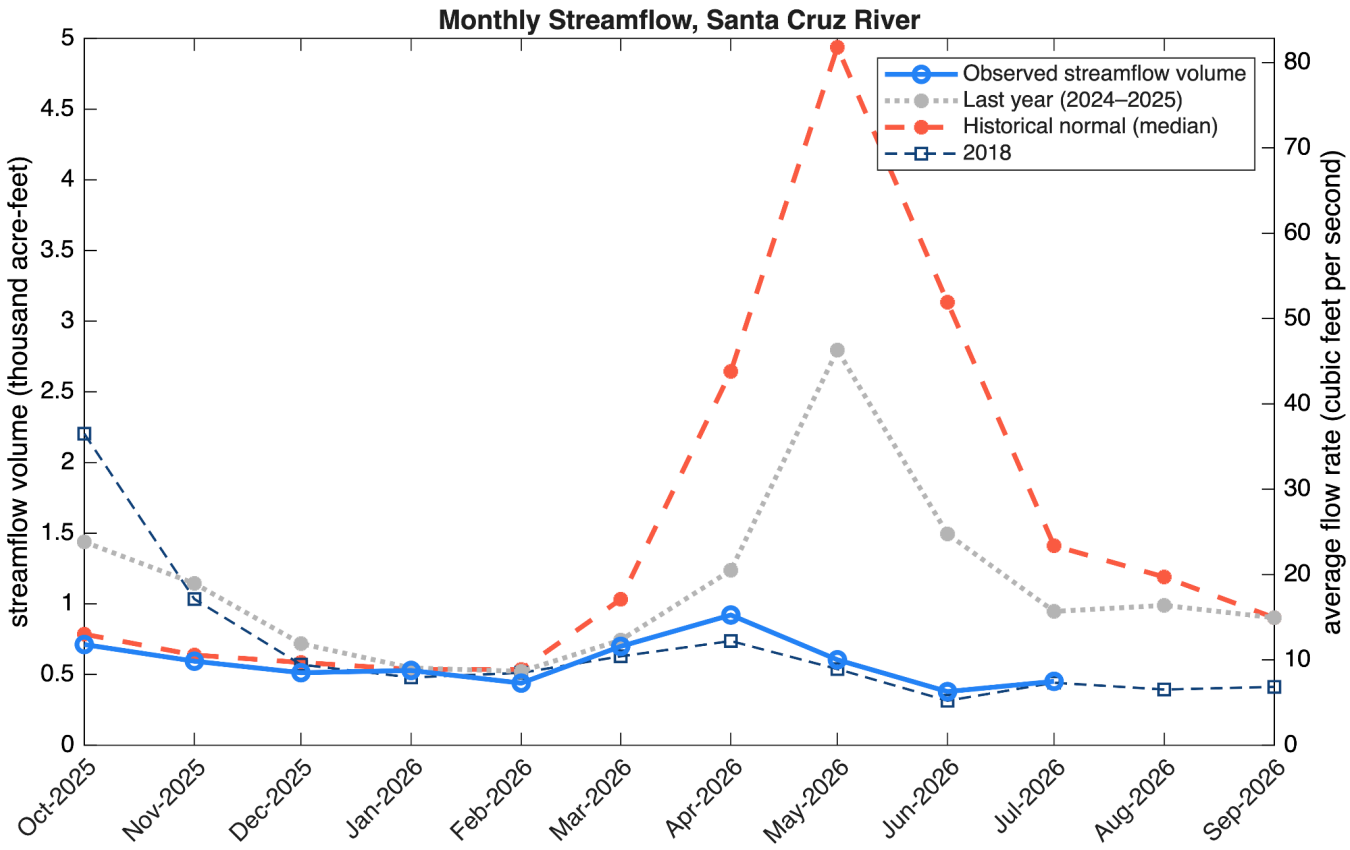


Santa Cruz streamflow was generally below normal in July, with lower daily flow rates compared to last year—ranging from around 5 to 15 cubic feet per second (cfs)—comparable to 2018 flow rates. Normal July flow rates range from 30 cfs, at the beginning of the month, to 20 cfs at the end of the month.

https://waterdata.usgs.gov/monitoring-location/USGS-08291000/#dataTypeId=continuous-00060-0&period=P365D&showMedian=true&showFieldMeasurements=true

Monthly Streamflow Volume

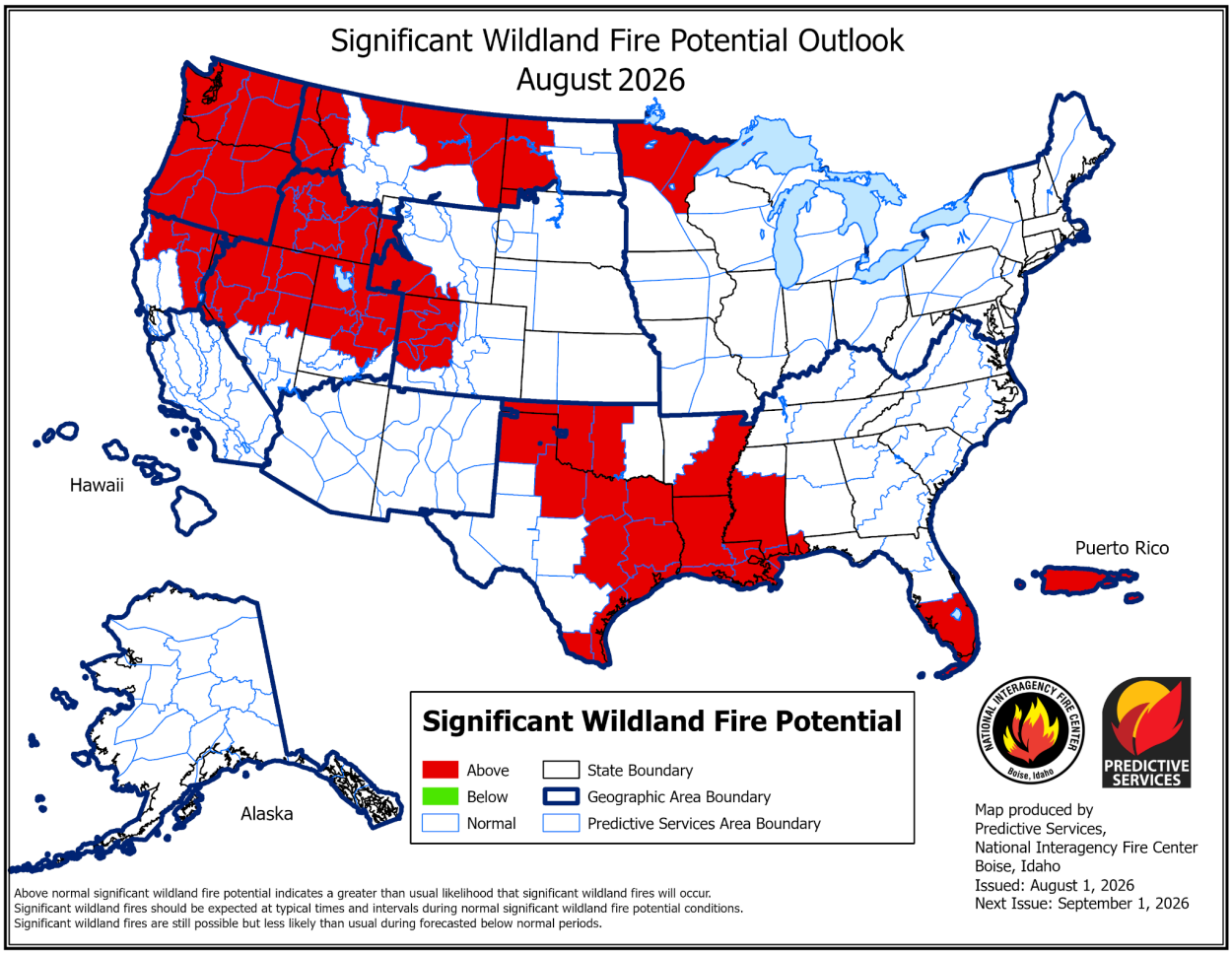
*In the plot below **this year's streamflow volume for each month of the water year is represented by the blue line** and is compared to the **historical median streamflow volume (red line)**—the normal streamflow volume for each month. Streamflow volume is the total amount of water that has moved past a point over a given duration*



July monthly-total streamflow was about one-third of normal July volume—less than one-half of last year's July volume, and about the same as in July 2018.

Wildfire

*The National Interagency Fire Center publishes the **Significant Wildland Fire Potential Outlook**, which **identifies areas where the potential for significant wildland fire is above-normal, near-normal, or below-normal**, for each month, looking four months ahead. The outlooks are intended to improve decision making and inform proactive management of wildland fire. Fire potential is assessed by incorporating information about vegetative fuels—abundance, dryness, spatial continuity—, the effect of past weather conditions on fuels, and the effect of expected weather conditions—on fuels and on any potential ignitions.*

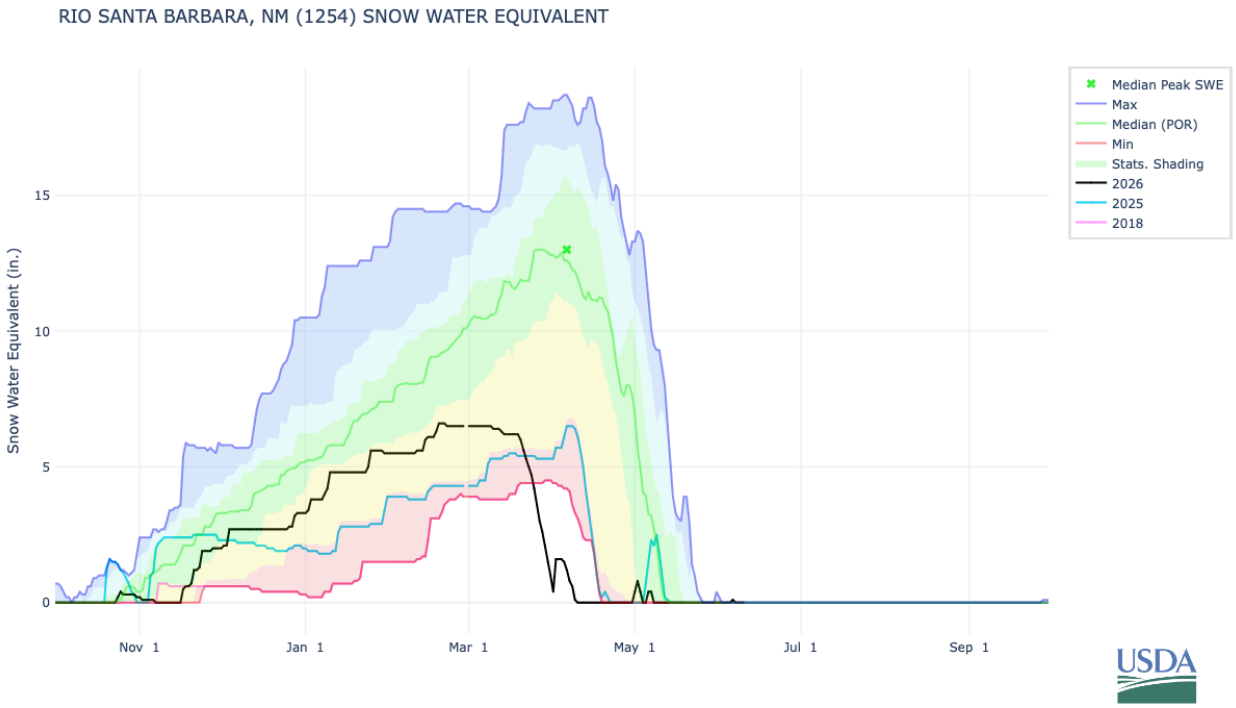


https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf

Potential for significant wildland fire is expected to be normal in August for all of New Mexico. Normal potential is also expected for September.

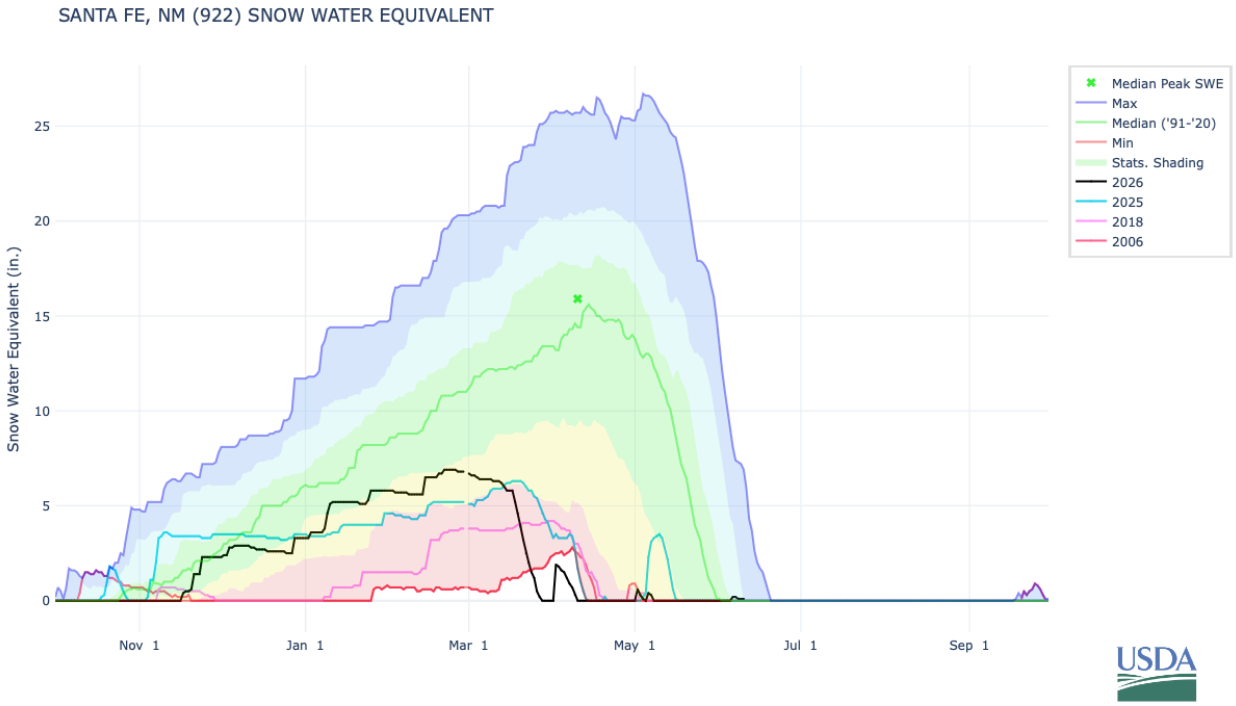
Snow (Snow Water Equivalent)

Rio Santa Barbara is the closest SNOTEL site to Santa Cruz. Winter snowpack is the leading factor determining streamflow and surface water availability; it provides useful context for how much water will be available long after it has melted. The plot below shows snow water equivalent (SWE) over the course of the water year (beginning in October), and how it compares to the range of values for daily SWE for all years in the record of observations—from the ***record minimum (red line)*** *to the* ***record maximum (dark blue line)****. The* ***green line shows the median, or normal, accumulated precipitation,*** *and values falling within the green shading are considered near normal.*



https://nwcc-apps.sc.egov.usda.gov/awdb/site-plots/POR/WTEQ/NM/Rio%20Santa%20Barbara.html?state=NM

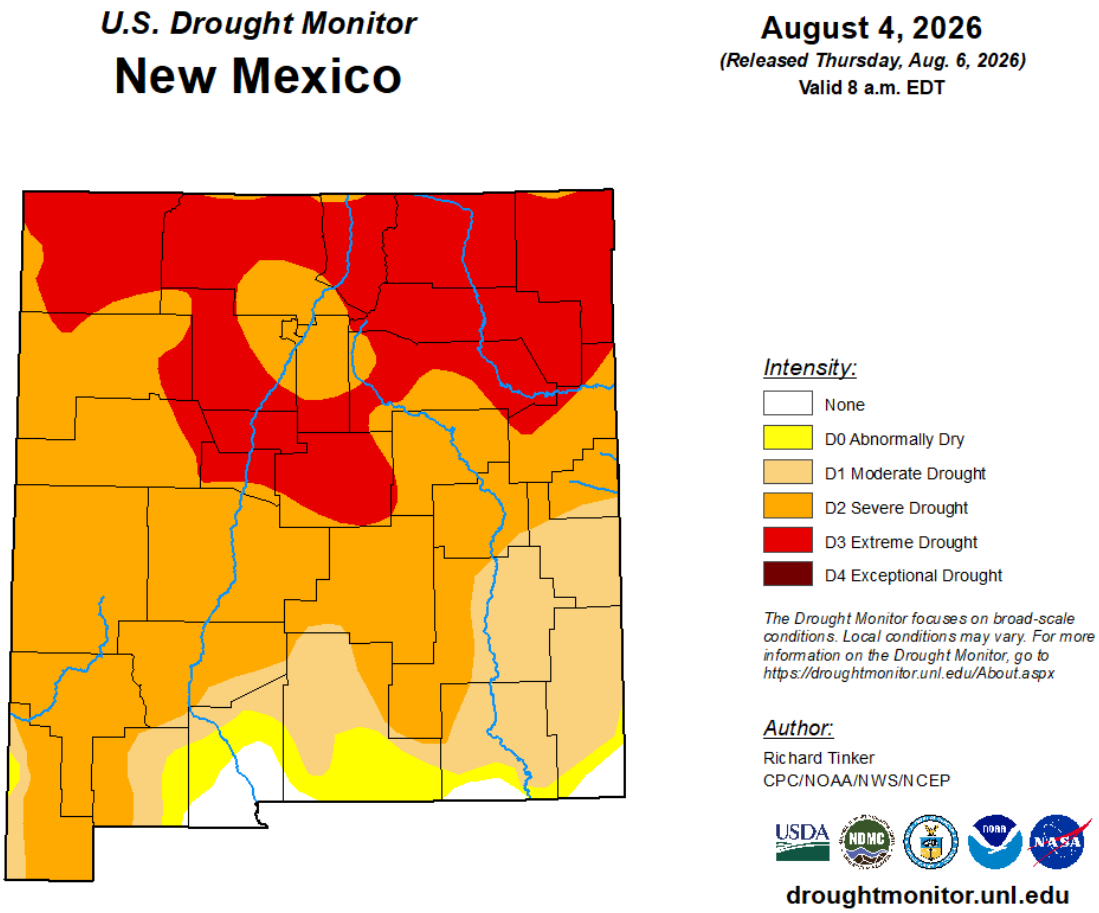
This past winter's snowpack was below normal, and melted earlier than in any past years on record at the Rio Santa Barbara SNOTEL site. Peak SWE was similar to in 2025, but the date of peak SWE this year (February 21) was over a month earlier than in 2025, when SWE peaked on April 8. 2018 had the lowest snowpack at Rio Santa Barbara, but melting occurred later than this year.



The Santa Fe SNOTEL station record is longer than the record at Rio Santa Barbara; the lowest snowpack on record at the Santa Fe SNOTEL station was in 2006, with less than one-half of this year's peak SWE.

Drought Status

The Drought Monitor classifies drought status by incorporating information from relevant data sources, including precipitation, temperature, soil moisture, surface water flows, groundwater levels, vegetation greenness, and local insights from field observations of experts.

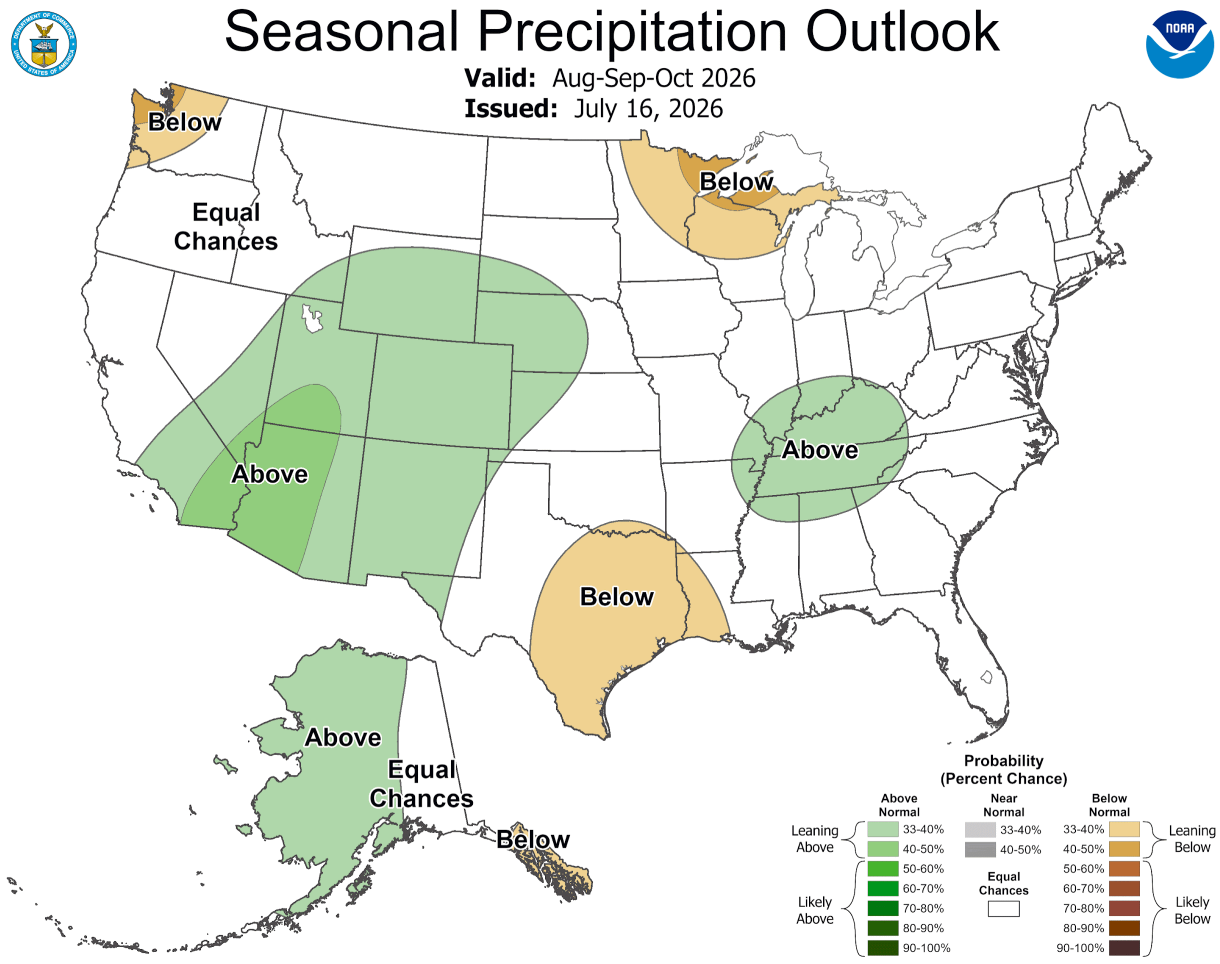


https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM

As of early August, the Santa Cruz region was considered to be in **severe drought (D2)**. Severe drought corresponds to drought conditions that historically occurred on average once every ten to twenty years. The area where drought is classified as **extreme drought (D3)** covers much of the Sangre de Cristo Mountains; this drought category refers to conditions that historically occurred on average once every 20–50 years.

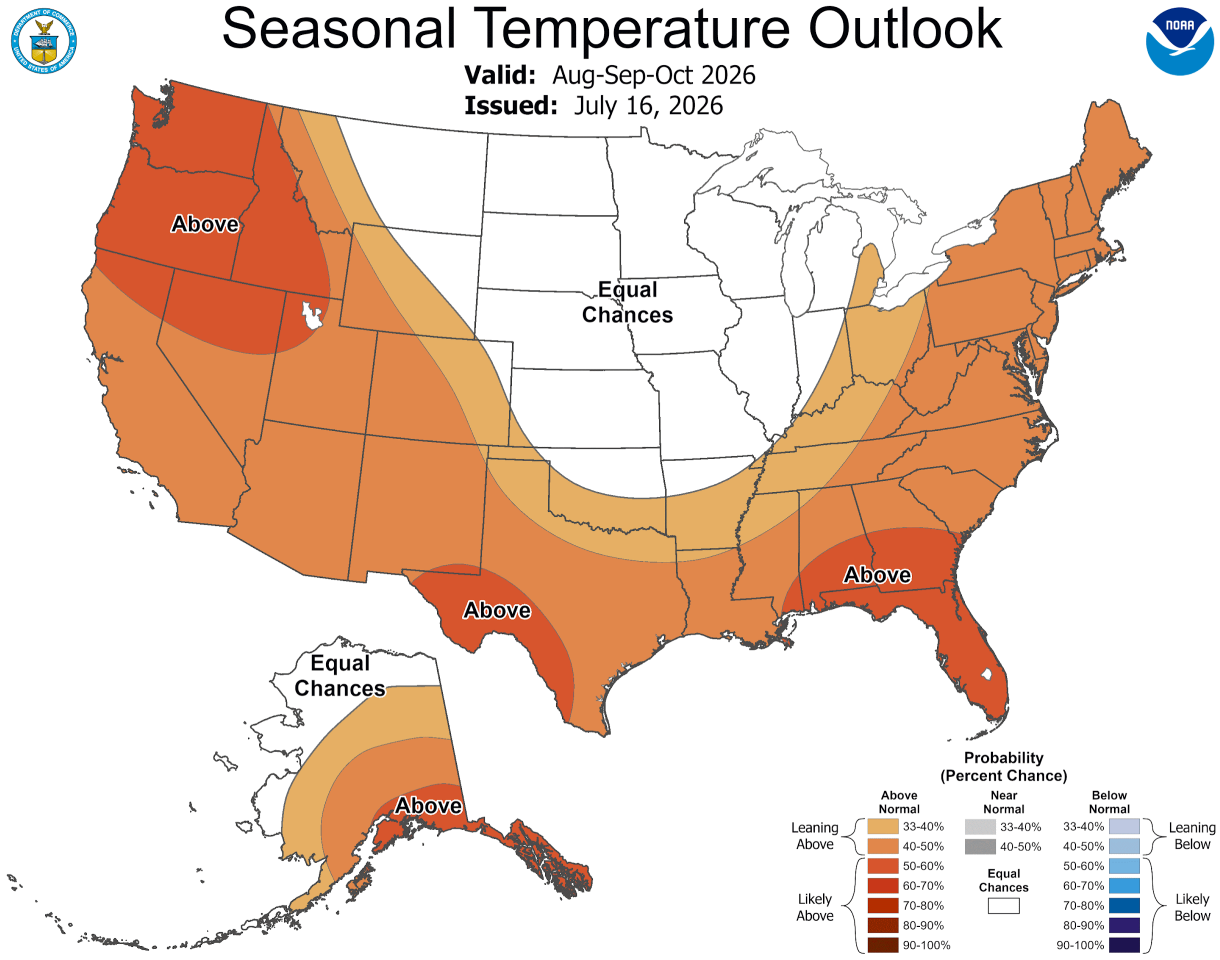
Seasonal Outlook

NOAA Climate Prediction Center (CPC) produces seasonal forecasts for different time scales (one week to 3-month), and a range of lead-times (Day 8-14 to next year). The seasonal climate outlooks are not predictions for the upcoming months, but are estimates for the probability of the precipitation or temperature falling within the top, middle, or bottom third of the historical climate record for a given location.



https://www.cpc.ncep.noaa.gov/products/forecasts/month_to_season_outlooks.php

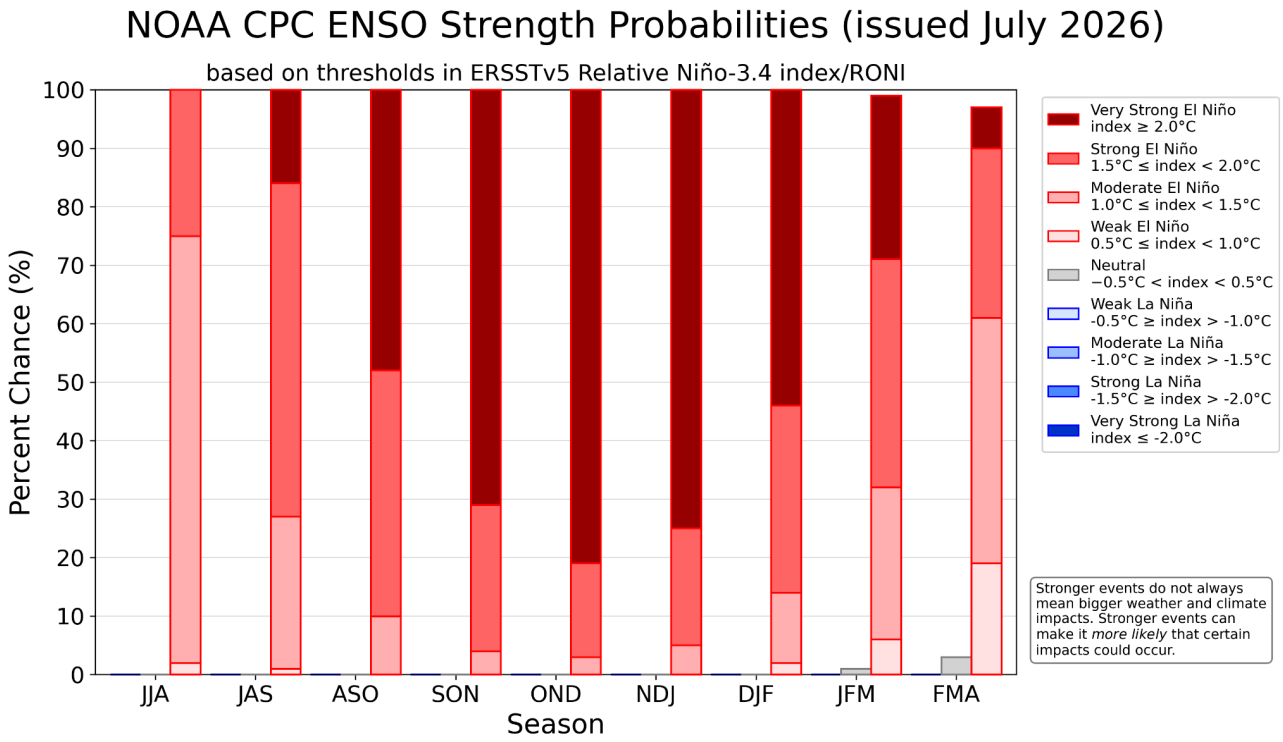
The seasonal precipitation forecast for August–October indicates chances lean toward above-normal precipitation for the Santa Cruz region (33–40% chance precipitation totals will rank in the upper one-third of records for the season).



The August–October seasonal temperature forecast **indicates chances *leaning* (40–50% chance probability) toward temperatures averaging above normal** for the three-month season.

ENSO (Forecast for Next Season)

The El Niño-Southern Oscillation (ENSO) is relevant to the climate of the Southwest because it consistently affects cool-season (fall, winter, spring) climate; ***El Niño*** *typically means wetter and cooler conditions during fall, winter, and spring;* ***La Niña*** *typically means dry and warmer conditions during that season.* ***"ENSO-neutral"*** *refers to conditions somewhere in-between La Niña or El Niño, and typically means we have less indication of which way seasonal climate will end up going. The months of the year are shown on the horizontal axis of the map in groups of three (i.e., DJF = December, January, February).*



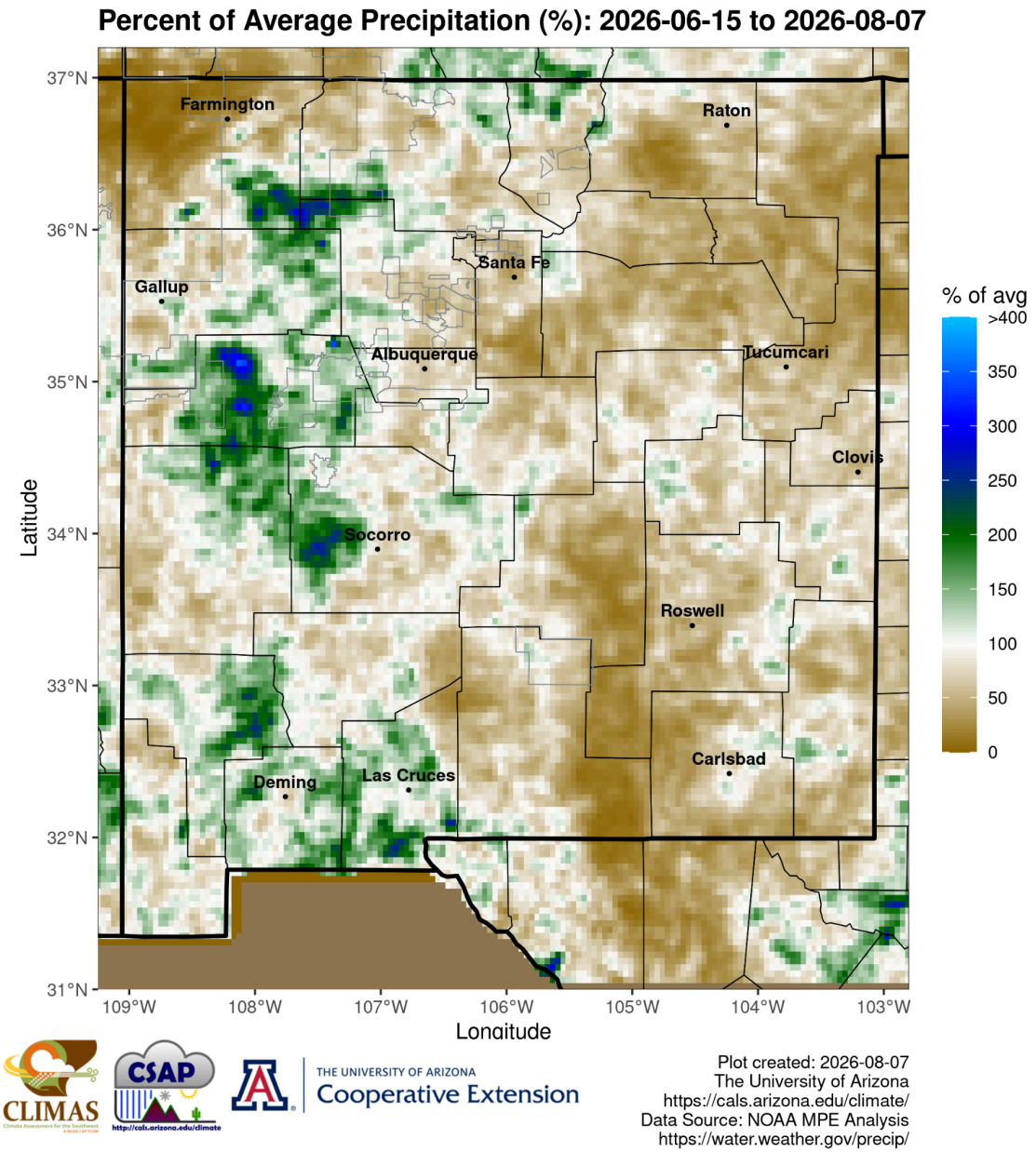
https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.shtml

Forecast models are indicating **El Niño** conditions are **almost certain to persist through fall and winter, into the coming spring**. Greater than 95% chance probabilities are indicated for all 3-month seasonal forecast windows, starting with June–August (JJA) through to the farthest forecast window, February–March (FMA).

Models are also indicating very likely chances this El Niño event will strengthen into a "Very Strong El Niño", which is the most extreme category of the four levels of classification applied to El Niño events. Very Strong El Niño conditions are most likely during the October–December season, at over 80% chance probability, but may arise as early as July–September and may persist until February–April. A stronger El Niño historically corresponds to greater chances of above-normal precipitation in the Southwest, fall–spring.

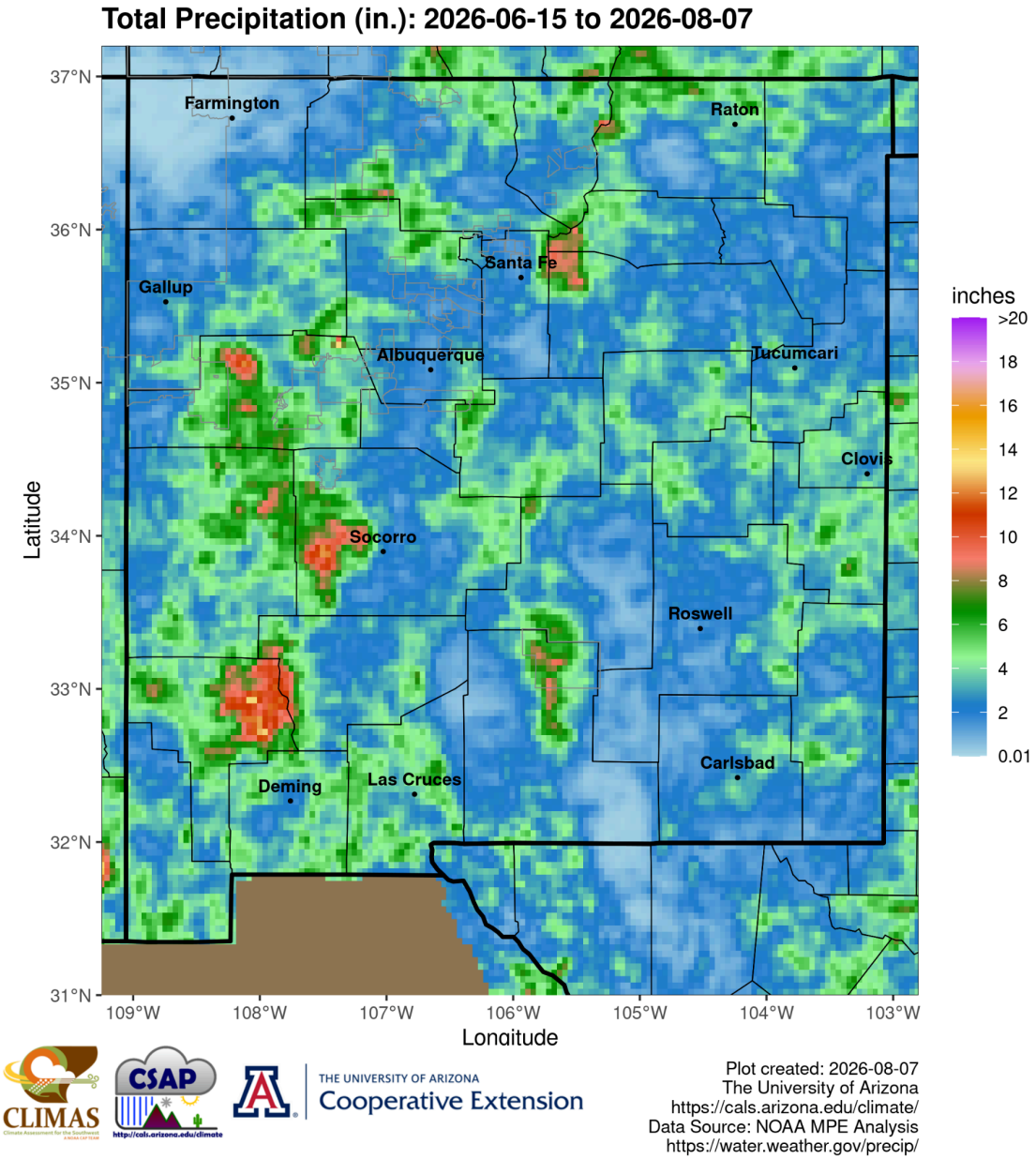
Monsoon

The map below from [University of Arizona] shows monsoon season precipitation (total precipitation since June 15) as a percentage compared to historical average precipitation for the same span of days of the monsoon season so far.



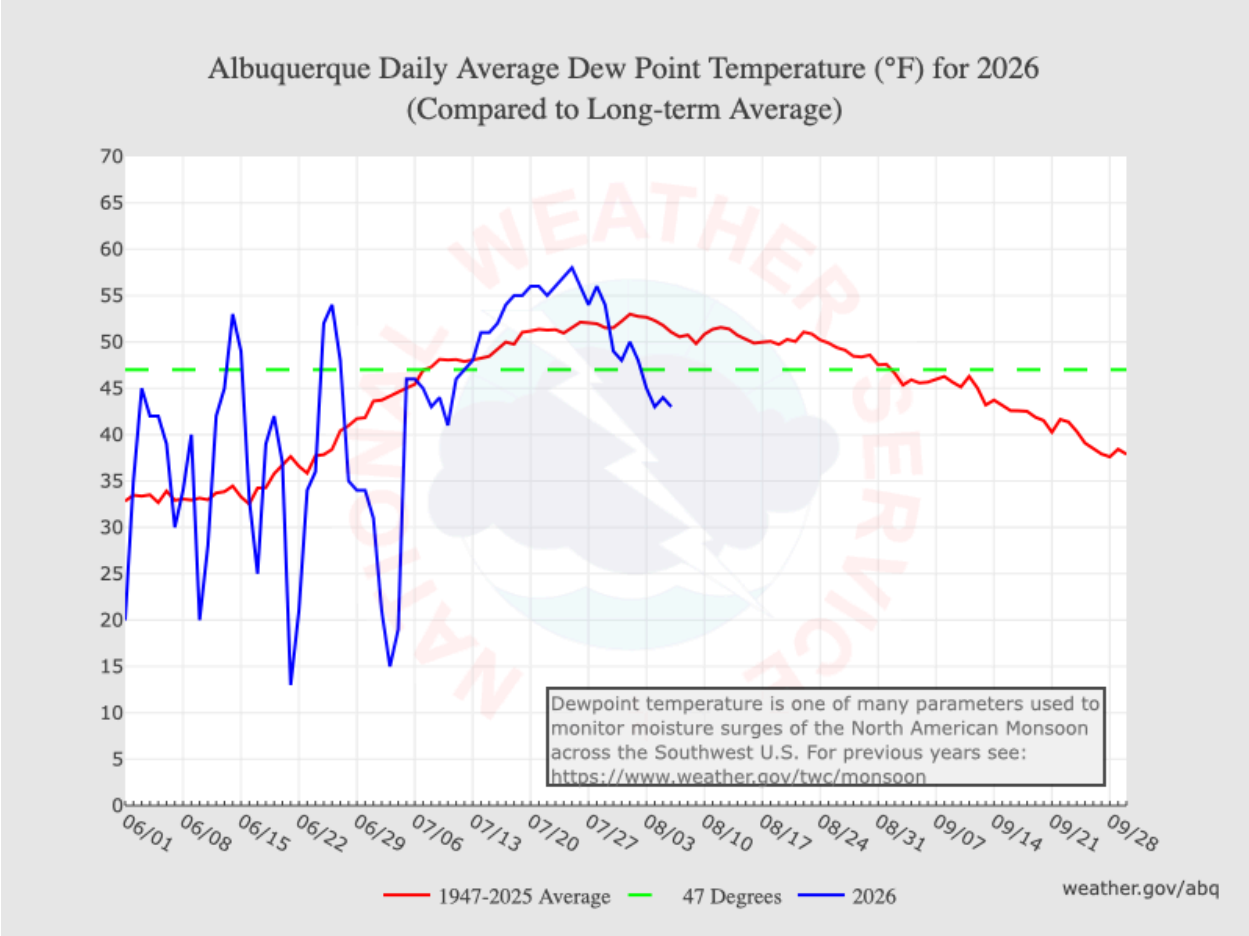
Monsoon season precipitation so far ranges from a little above average in the northern parts and higher elevations of the Santa Cruz region, to below average at the southern extent of the region.

The map below from University of Arizona shows monsoon season precipitation (total precipitation since June 15) so far.

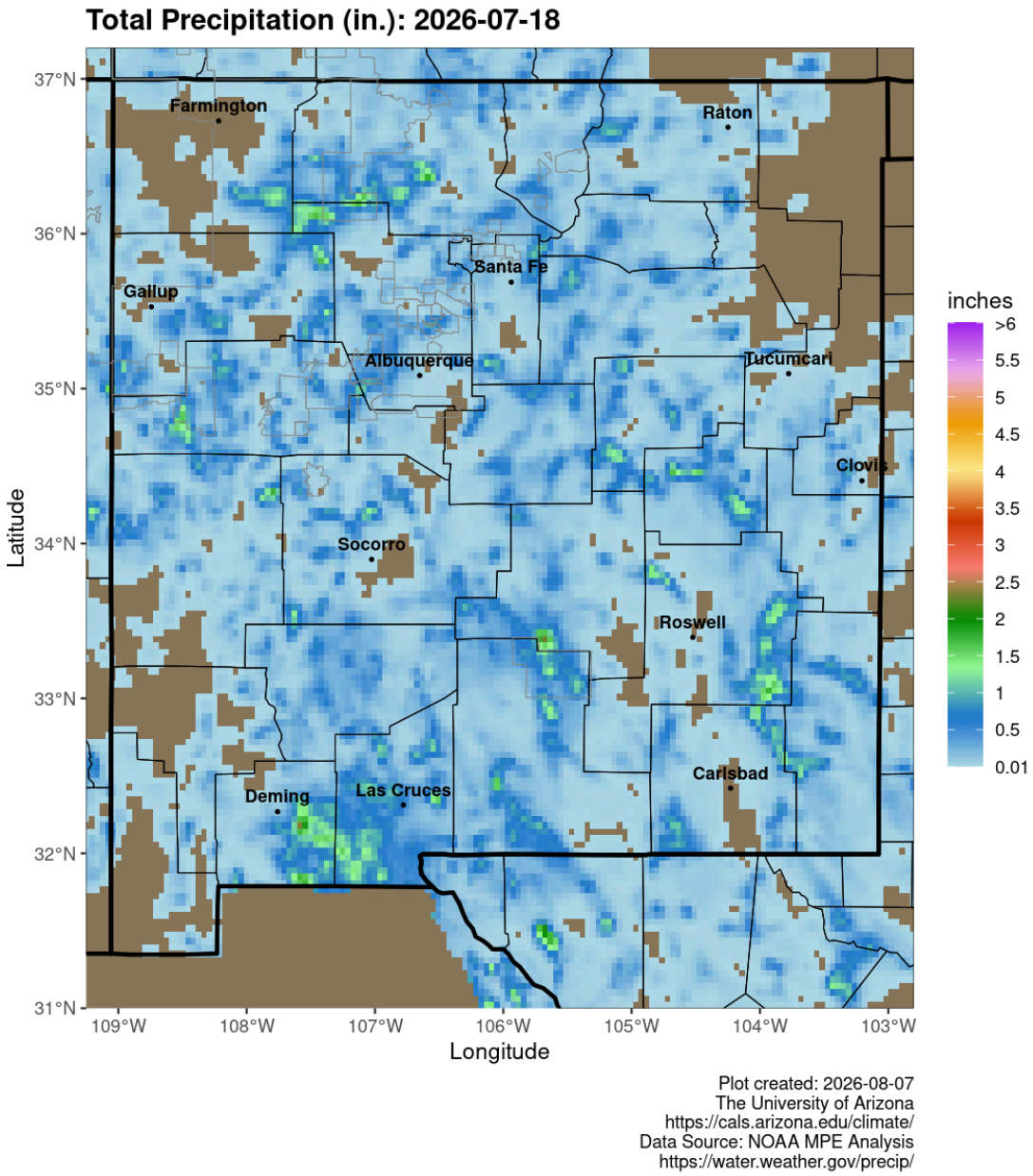


Monsoon season precipitation totals range from under 2 inches in the lower parts of the Santa Cruz region, to over 8 inches in some nearby higher elevation locations. The greatest totals in New Mexico, over 10 inches, have fallen in Grant County in the catchments of the upper Gila River and Mimbres River.

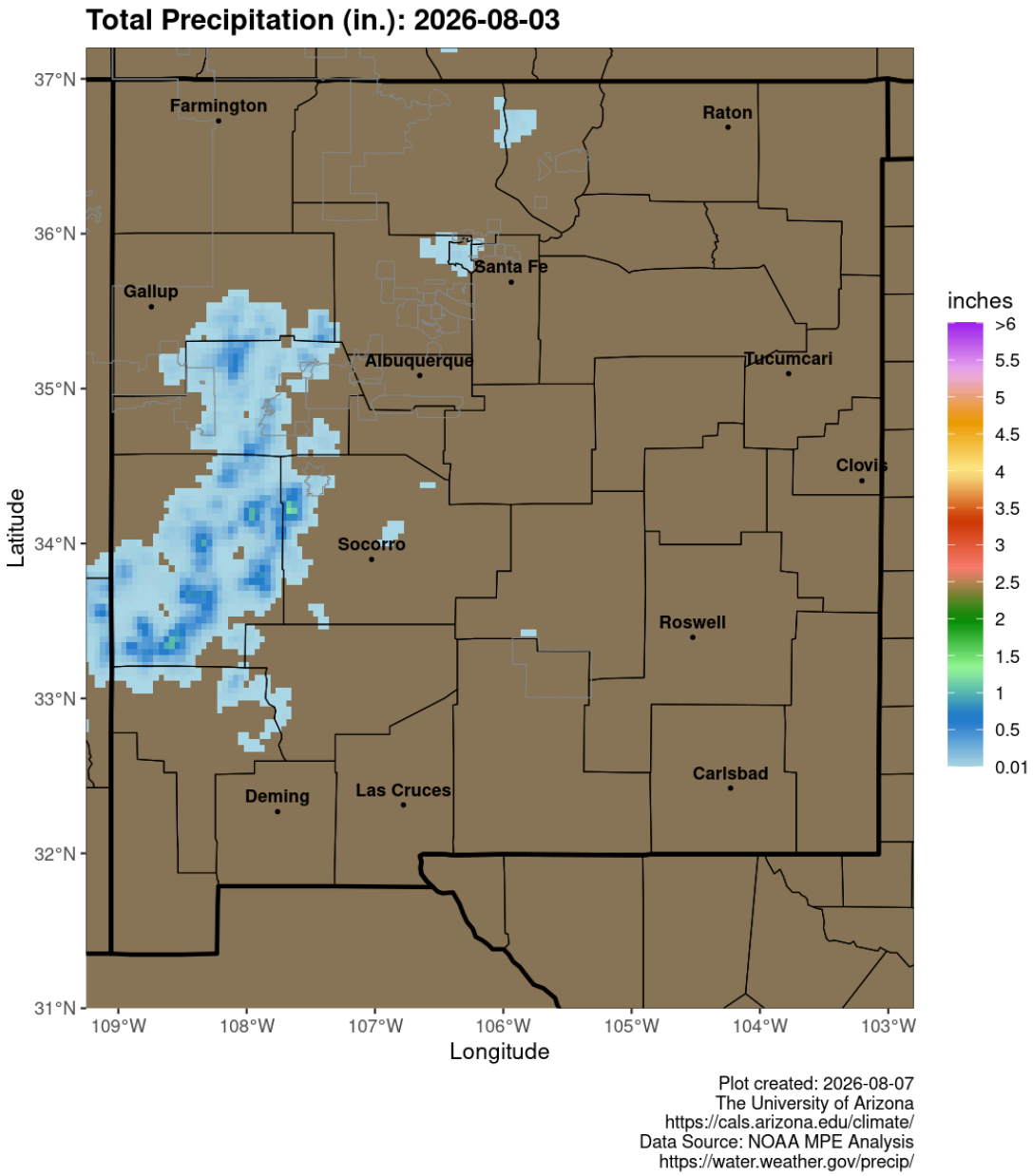
Dew point temperature is a useful measure of atmospheric moisture during the Monsoon season. The chart below shows this season's daily dew point temperature observations at Albuquerque compared to the long-term average daily dew point temperature. Also highlighted is the 47°F dew point temperature threshold, which serves as a good rule-of-thumb reference level for moisture levels sufficient to support widespread thunderstorms.



Moisture levels were above the "monsoon baseline" 47° F daily-average dewpoint temperature, July 13–August 2, but have declined sharply since July 29.



July 18 had the highest daily-average dewpoint temperature at Albuquerque. Daily precipitation was widespread on July 18, relative to other days this monsoon.



On August 3, daily-average dew point temperatures at Albuquerque fell below the 47°F “monsoon” baseline. Precipitation on August 3 was mostly restricted to higher elevation areas of western New Mexico.

Thank you for reading the Santa Cruz Climate Bulletin - please send any general feedback for questions to Steph (smladinich@ou.edu).

Background on the Santa Cruz Climate Bulletin

Two key decisions targeted here are:
1) Information and context supporting the decisions of the SCID board and to increase preparedness for weather events and changing patterns (an additional tool in the SCID tool box).
2) help inform parciantes for their short and long-term planting and irrigation strategies and the regional acequia association on watershed health planning and potential policy development. We also aspire to create a system where we can inform mayordomos/as for flood response actions, e.g. when to close head gates or be aware of potential flooding occurrences.

Our plan is to share this report seasonally. *We request your ongoing feedback* on the relevant questions, decision factors, clarity of explanations we are offering, and any other feedback that could help improve this report.

Both the relevance and limitations of this report were highlighted on August 29, 2025 when a massive cloud burst dumped approximately 1.25 inches of hail and rain over the course of an hour in our watershed, creating damaging and dangerous flooding in our communities. This weather was not in the forecast. This report captures trends, patterns and predicted weather. We hope that creating more conversations and awareness around changing and unpredictable patterns will enable all of us in our basin to be better equipped to adapt and respond to changing conditions. We will create additional avenues to continue sharing these strategies.

Contacts for questions:
For feedback / requested revisions to report:

- CLIMAS, Matt Meko, meko@arizona.edu
- South Central CASC, Stephanie Mladinich, smladinich@ou.edu or 505-489-7755

For NM specific climate questions:

- Dave Dubois - State Climatologist, dwdubois@nmsu.edu

For support with adaptation strategies: Serafina Lombardi, NMAA

- Serafina@lasacequias.org or 505-995-9644

For questions about management decisions in the basin: Ron Gallegos, SCID

- scid2195@gmail.com or (505) 753-2195

For questions about watershed planning: Don Bustos, Greenroots Institute, Santa Cruz Land Grant and the Rio Quemado, Rio en Medio, Rio Frijoles, Rio Santa Cruz Stream Systems Acequia Association

- santacruzfarm1@gmail.com or (505) 309-1168