Santa Cruz Basin Seasonal Climate Bulletin

January 2026

Data Available as of January 12, 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—January 2026

- **This past December was the warmest on record for the Santa Cruz region, much of New Mexico, and across much of the greater Southwest.** October–December average temperatures were also record-warmest.
- **Recent precipitation has been short of normal.** Below-normal winter snowpack has resulted in part from high temperatures as well as precipitation shortfalls.
- **Seasonal forecasts** for the upcoming months lean toward drier-than-normal and warmer-than-normal conditions, in part because of the influence of La Niña conditions in the tropical Pacific Ocean.
- **Longer-term forecasts** indicate La Niña conditions are likely to fade relatively quickly—by spring—and appear unlikely to return in 2026.

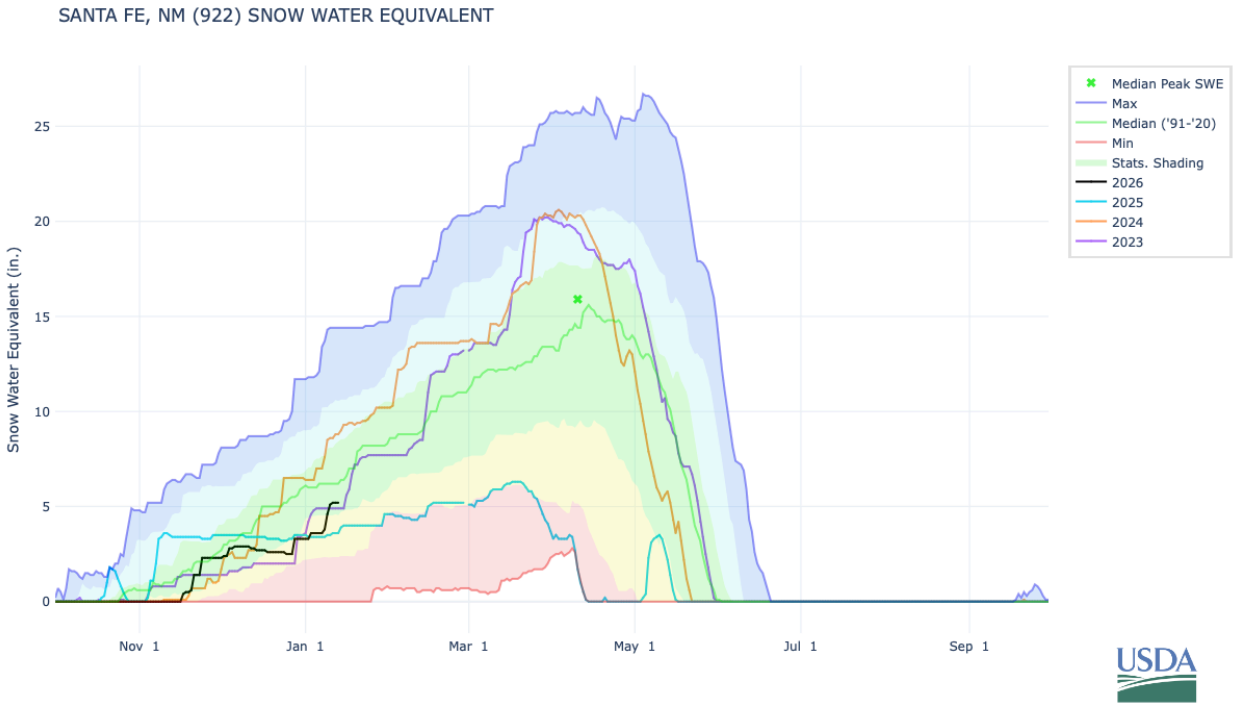
This report is brought to you through the collaboration of:

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.

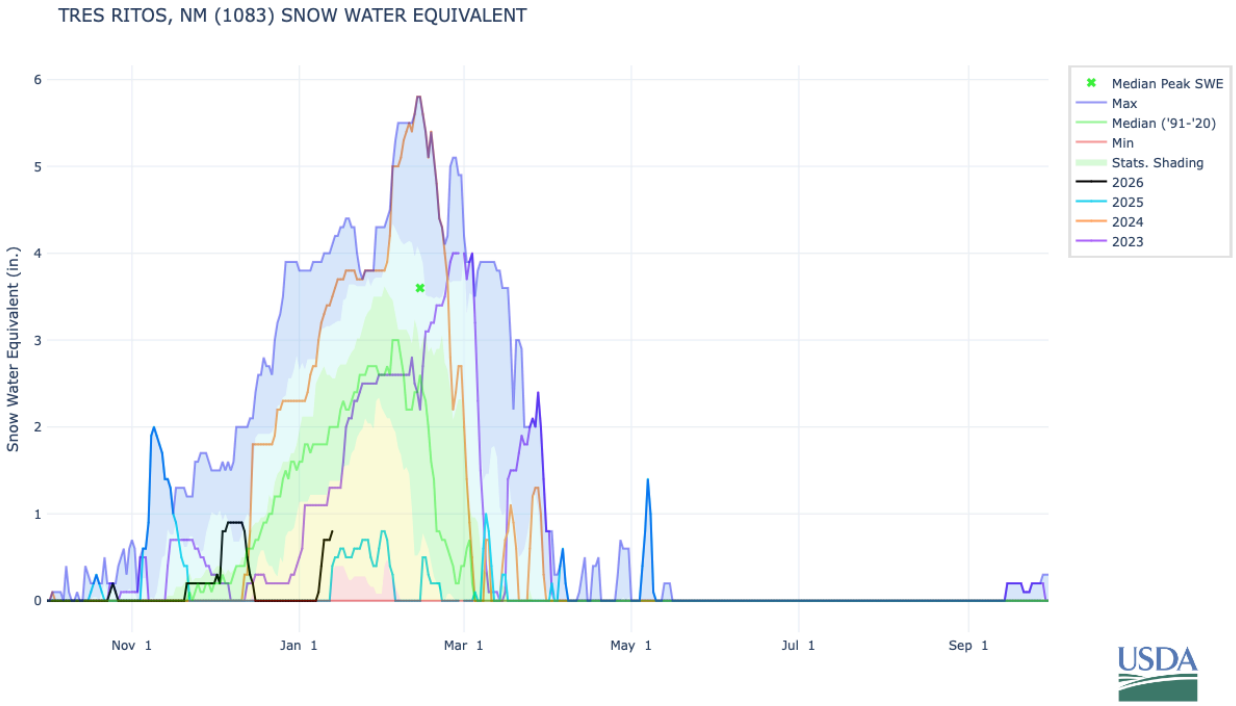
Winter snowpack progress in context:

Upper vs. mid-elevations

Snowpack is below normal across much of the Mountain West, in part because of precipitation deficits, but also because of record-warm temperatures. The plot of daily snow water equivalent (SWE; below) observations at the Santa Fe SNOTEL station (11,480 ft elevation) shows this year's snowpack growth (**black line**) as compared to a statistical normal (**green line**), and ranges considered near normal (green shading), above normal (blue shading) and below normal (yellow and red shading). Also plotted are lines representing **2025**, **2024**, and **2023** snow seasons for each water year (beginning in October).



One notable feature of this year's SWE data is the slight decline that occurred in December, associated with the record-warm temperatures. A similar loss of snowpack occurred in December 2024 (2025 line), and in February 2025. Current SWE values are above where they were last year at this time, although still less than normal. 2023 snowpack was similarly near or below normal at this time in the season, but later peaked above normal in April (purple line). Both 2023 and 2024 SWE plots show the dramatic impact of individual snow events—where the lines increase sharply in near-vertical "steps"—in February and March. Impactful late-season snow events highlight the difficulty of predicting the ultimate state of a season's snowpack from mid-season—just a single event can make a tremendous difference.

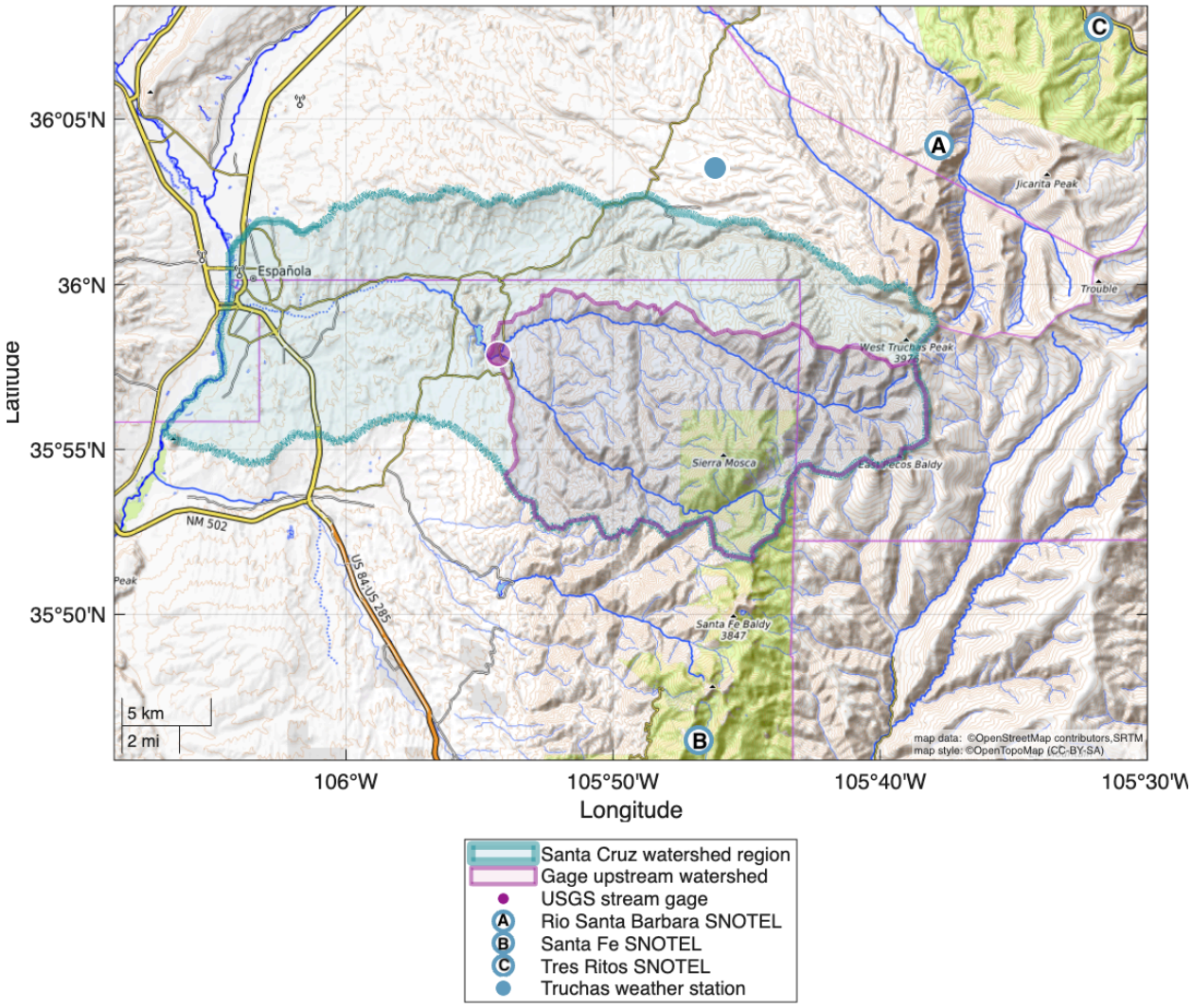


The Tres Ritos SNOTEL station (8,740 ft elevation) is outside the Santa Cruz watershed, but nearby, ~30 miles northeast of Santa Fe SNOTEL and less than 10 miles northeast of Rio Santa Barbara SNOTEL. It provides a good example of a lower elevation SNOTEL site compared to the Santa Fe site. SWE at Tres Ritos shows a more dramatic response to the record warmth in December (black line)—snow there melted completely over a short period of time. The 2025 season also saw episodes of total melt-off throughout the winter (blue line). Data for 2023 and 2024 here again show the dramatic impact of a small number of snow events—where the lines increase sharply in near-vertical “steps”.

Although lower elevations store less water per unit area (median peak SWE of 3 inches at Tres Ritos compared to over 15 inches at Santa Fe), the higher elevations make up much less area of the watershed, so low-elevation snowpack is still important to the overall water supply. Although snow at lower elevations peaks much earlier, the snowmelt does not all immediately run off as streamflow. It also contributes to mountain groundwater storage and slower sub-surface flows that combine with the later snowmelt from higher elevations.

Santa Cruz Region

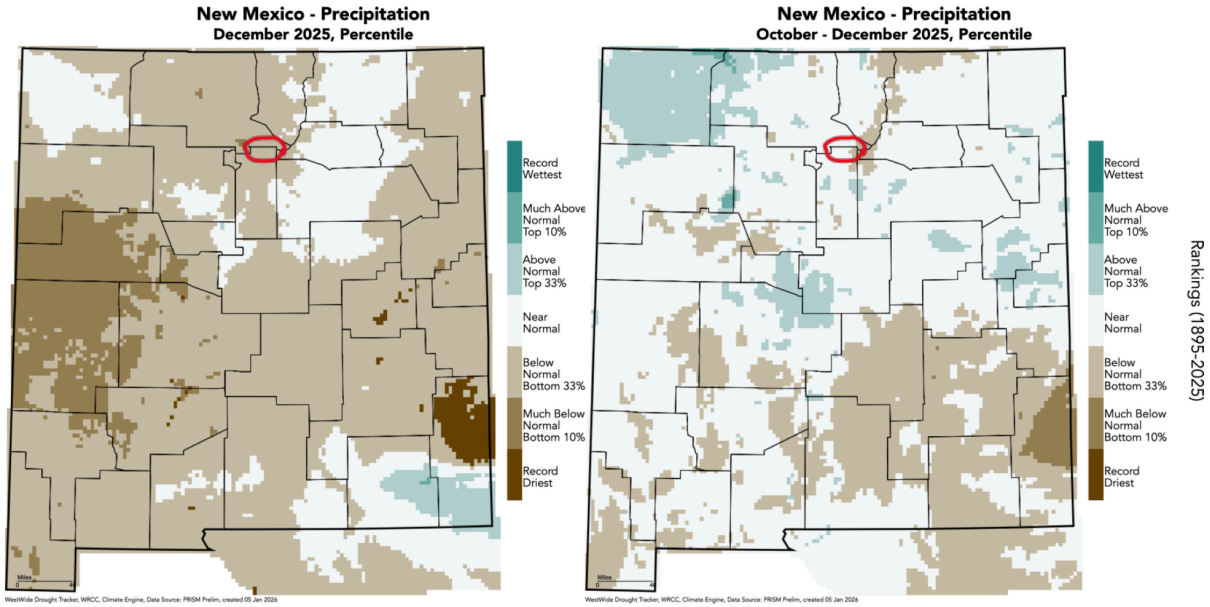
The map below shows the extent of the Santa Cruz watershed region and the locations of stations providing data for this bulletin: USGS stream gauge (contributing watershed also shown); snow telemetry (SNOTEL) stations at the Rio Santa Barbara, Santa Fe, and Tres Ritos sites; and the Truchas weather station.



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

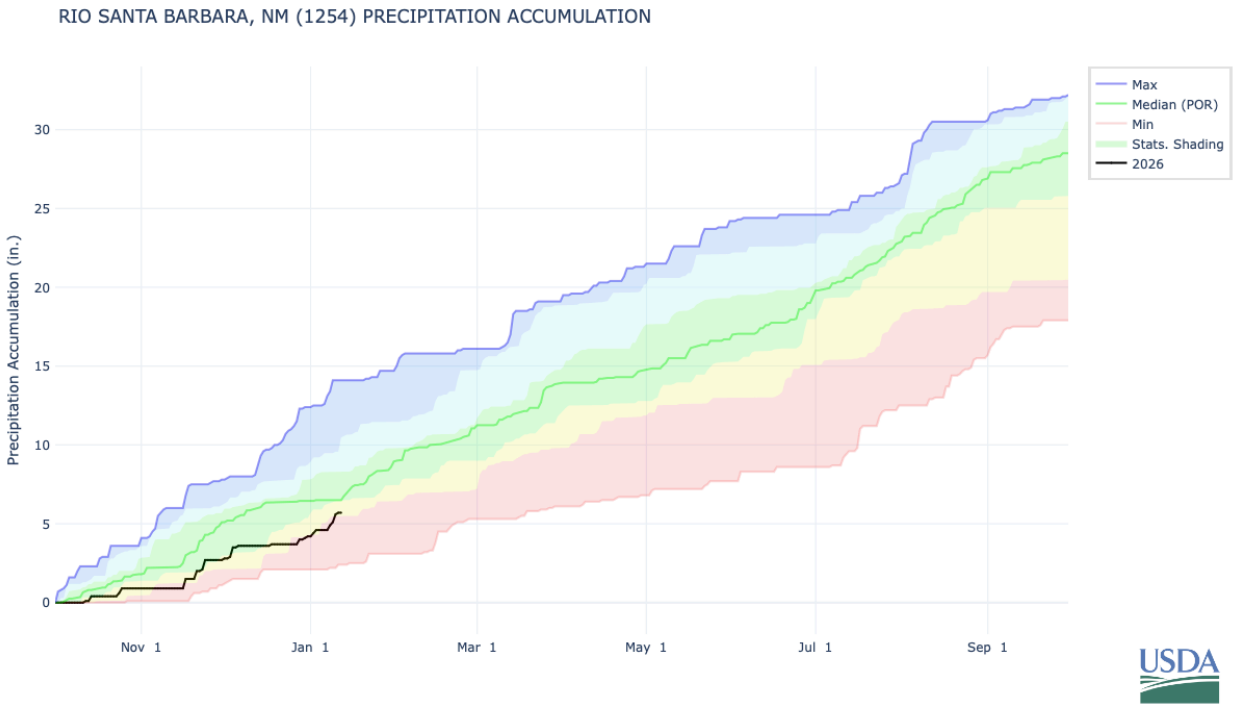
Station	December total	December % of normal	October–December total	October–December % of normal	Water year (Oct 2025–Dec 2025) total	Water year % of normal
Truchas	0.5 in.	39%	2.9 in.	67%	2.9 in.	67%
Santa Fe SNOTEL	1.4 in.	50%	5.3 in.	71%	5.3 in.	71%
Rio Santa Barbara SNOTEL	1.4 in.	-	4.2 in.	-	4.2 in.	-

December: 0.5 inches of rain at Truchas weather station
December precipitation in the Santa Cruz region was **below normal (ranking among the driest one-third of all years)**.

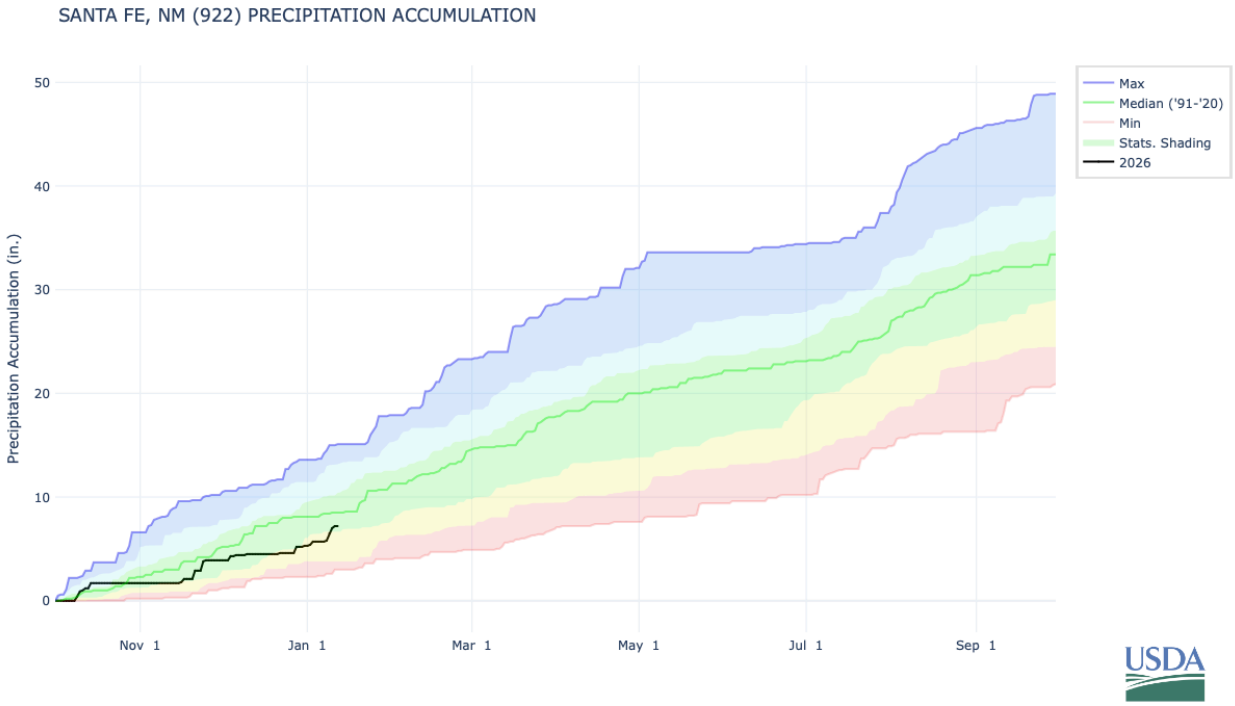
Water year to date: 2.9 inches of rain at Truchas weather station
Total precipitation for the water year so far was 67 percent of normal for the Truchas station and 71 percent of normal for the Santa Fe SNOTEL station.

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****.*



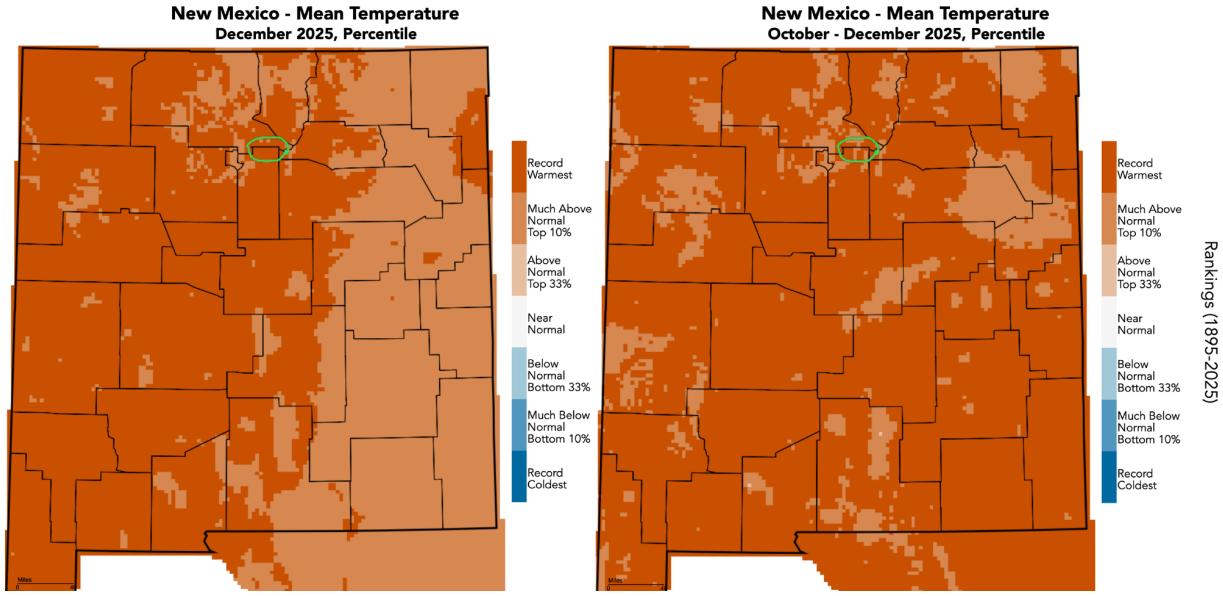
Precipitation at the Rio Santa Barbara SNOTEL site for the 2026 water year (black line) has generally been below normal. As of January 12, water-year total precipitation was at 88% of normal for that date.



Water year precipitation accumulation at Santa Fe SNOTEL station has generally remained within the range considered to be near normal (**green shading**) from October 2025 through mid-January 2025.

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.***



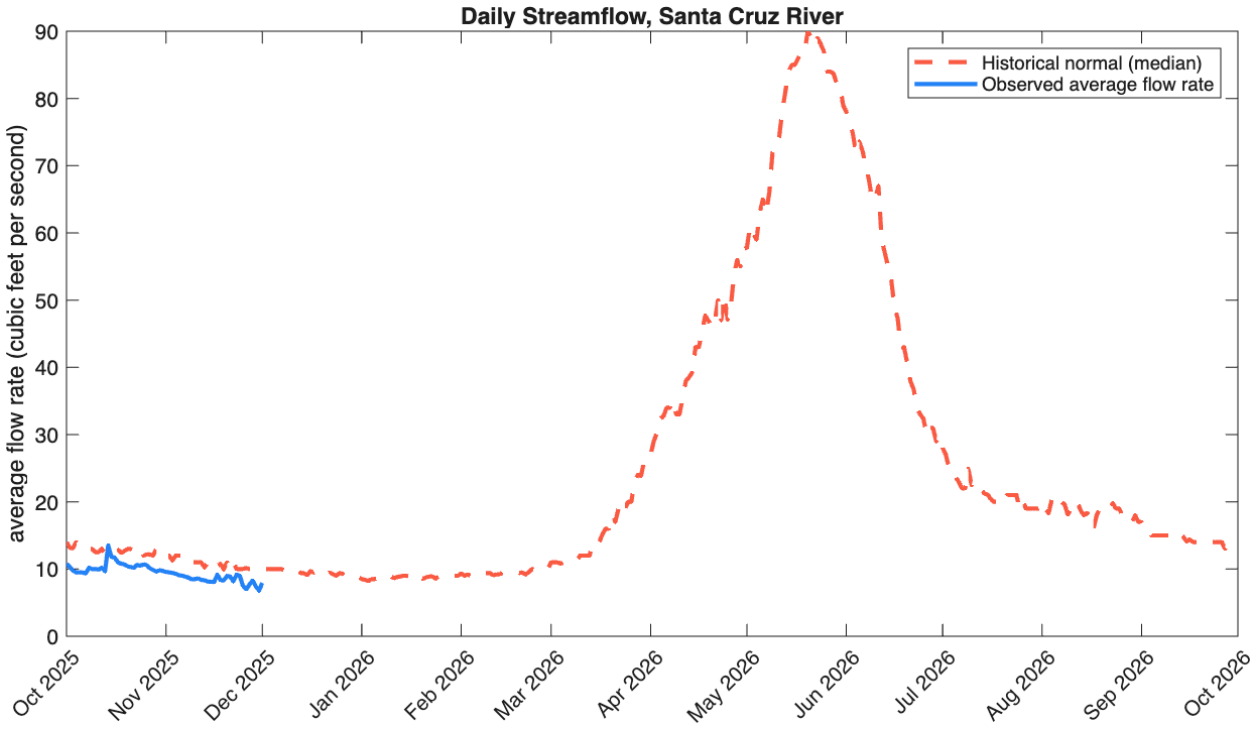
Average temperatures in December 2025 (left) for the Santa Cruz region were the warmest on record (1895–2025).

Overall, the recent three-month average (right; October 2025–December 2025) temperatures were, on average, either **the warmest on record** or **much-above normal (ranking among the warmest 10% of years on record)**, depending on location in the watershed. This was the warmest October–December season on record for most of New Mexico.

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)****.*

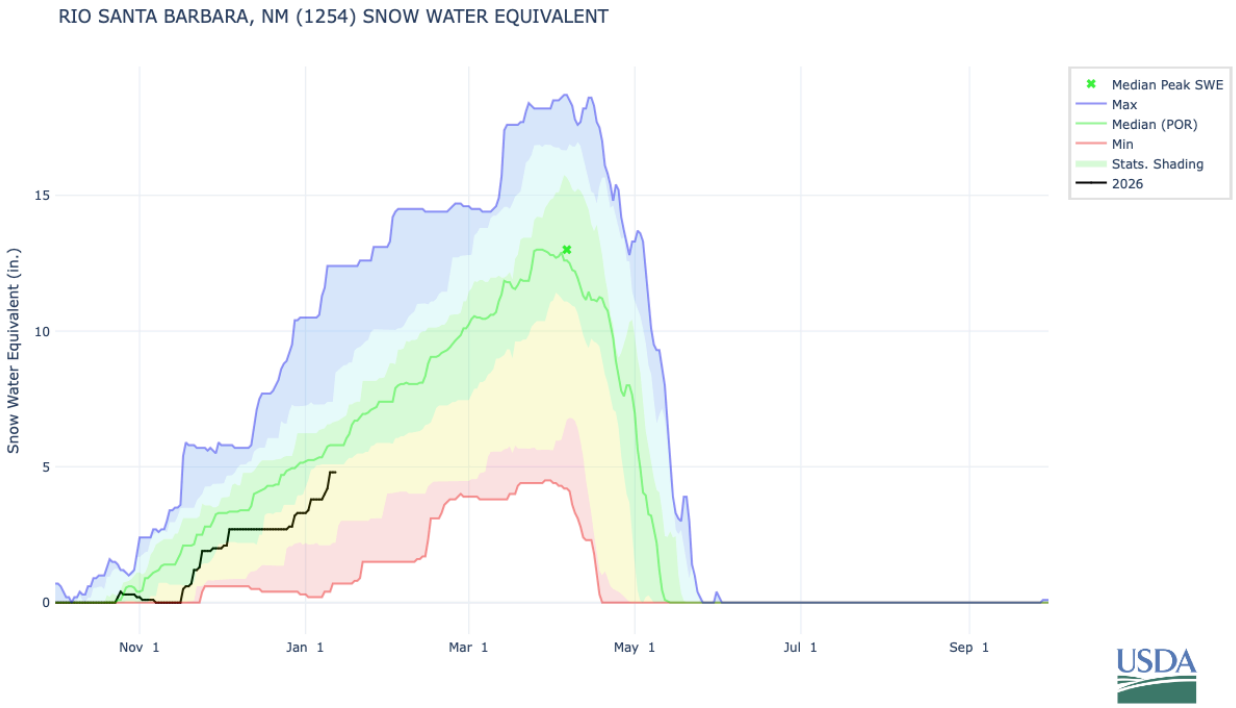
Since October 2025 (Water Year 2026 so far)



Data for streamflow measurements after December 1, 2025 have been unavailable; it is not clear what is the reason for the missing data. Measured flow rates on the Santa Cruz River were just below normal most days in October–November—around 10 cubic feet per second on average.
https://waterdata.usgs.gov/monitoring-location/USGS-08291000/#dataTypeId=continuous-00060-0&period=P365D&showMedian=true&showFieldMeasurements=true

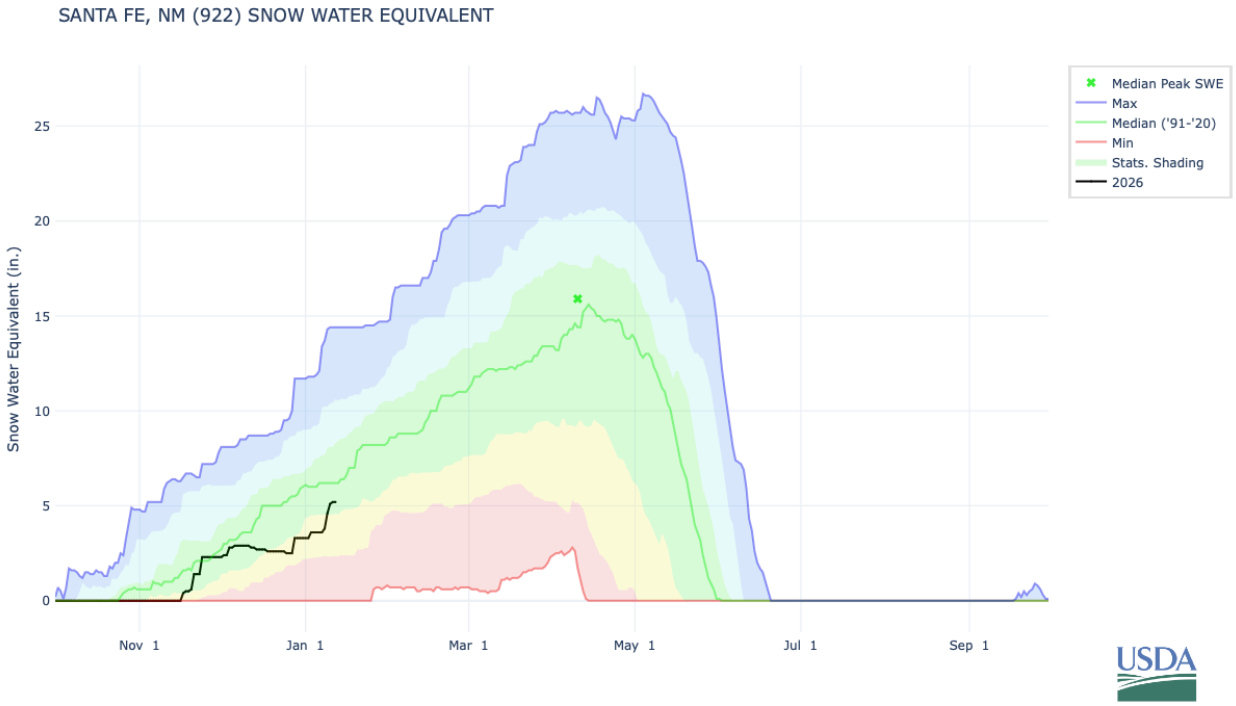
Snow (Snow Water Equivalent)

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

Snowpack accumulation for the 2026 season **(black line)** resumed in late December and early January after a slowdown during early- and mid-December. Despite the recent pick-up, snow water equivalent (SWE) values have remained below normal (the period-of-record median SWE; **green line**), and below the range considered near normal (**green shading**).

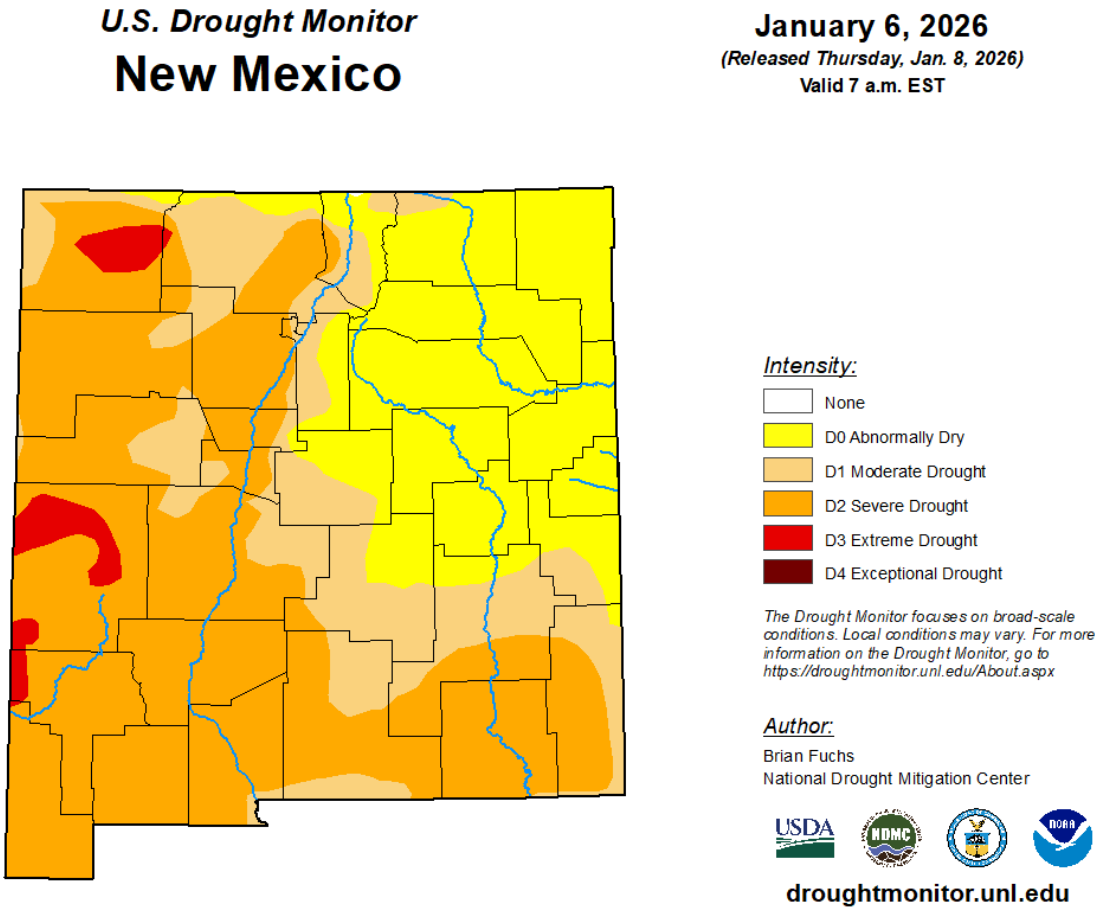


SWE at the Santa Fe SNOTEL station declined during the mid-December period of exceptionally warm temperatures, when there was also little-to-no precipitation. Snowpack growth resumed near the end of December and into January with the passage of a series of storm systems and cooler temperatures, bringing SWE levels to within the range considered near normal (**green shading**).(See also the discussion at the beginning of this report.)

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.

As of early January, the Santa Cruz region included areas considered to be **abnormally dry (D0)** and areas considered to be in **moderate drought (D1)**.

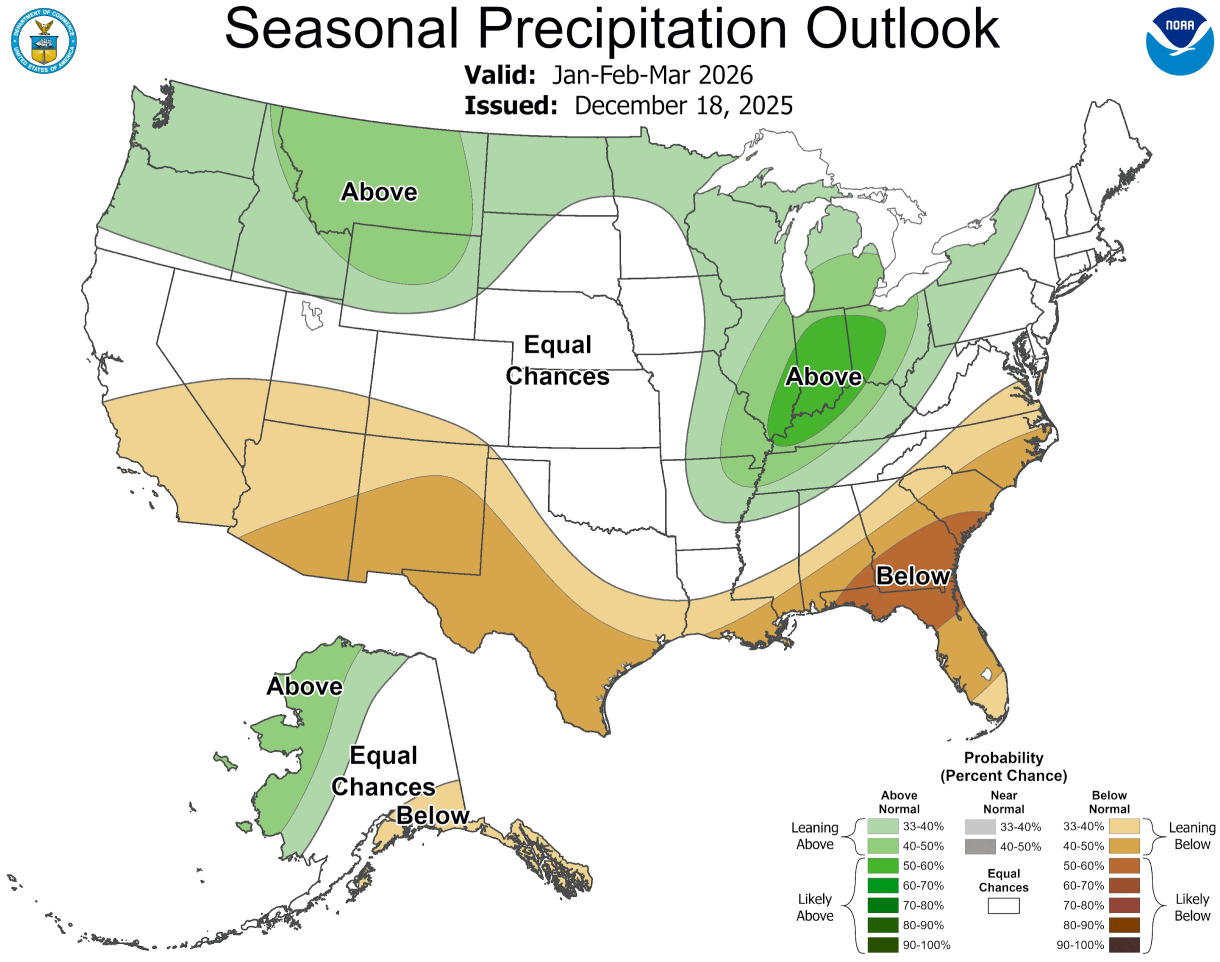


https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM

Seasonal Outlook

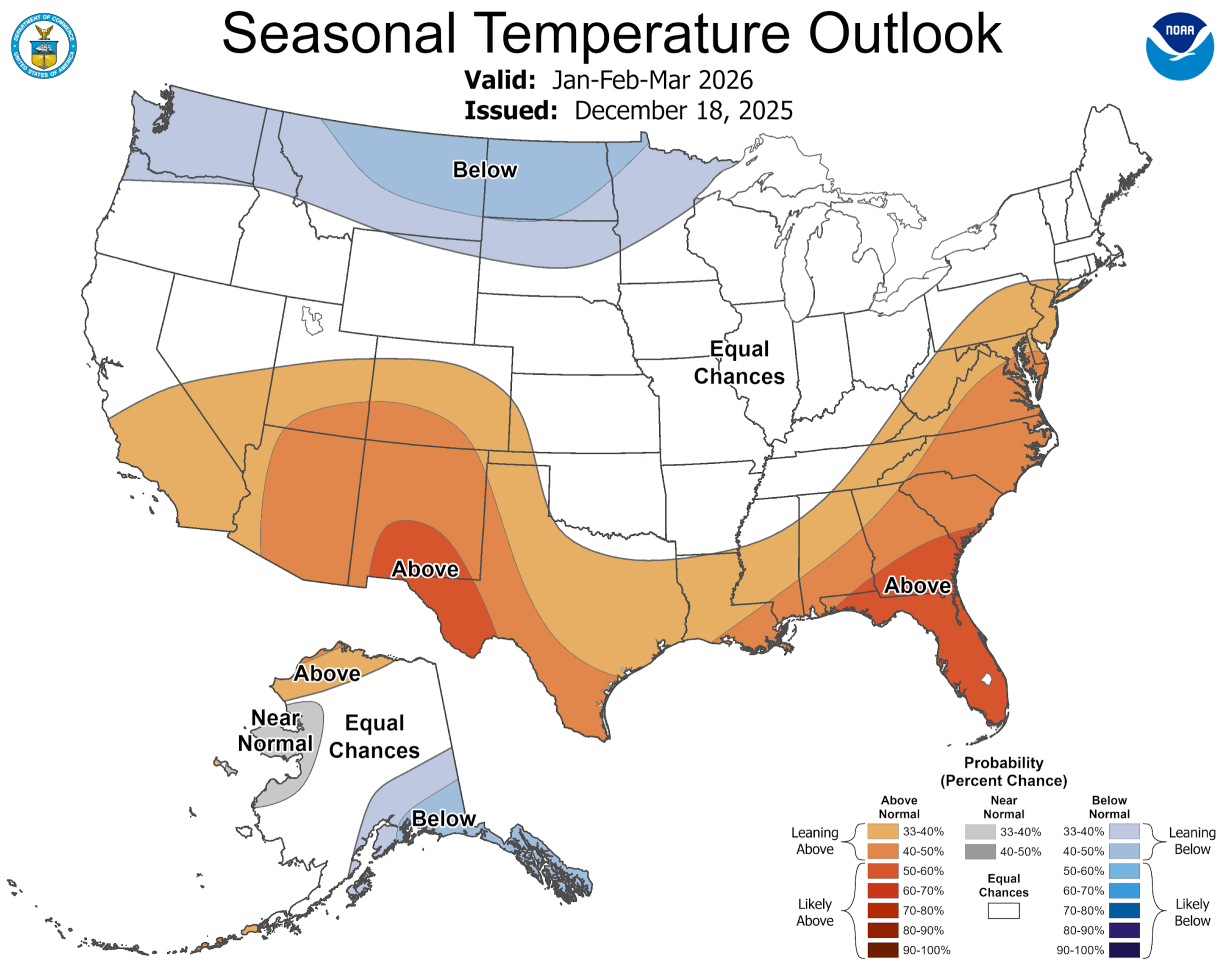
NOAA Climate Prediction Center (CPC) produces seasonal forecasts for different time scales (one week to 3-month), and a range of lead-times (Day 8-14 to next year). The seasonal climate outlooks are not predictions for the upcoming months, but are estimates for the probability of the precipitation or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

The January–March seasonal precipitation forecast **leans toward below-normal precipitation for the Santa Cruz region (33–40% chance)**.



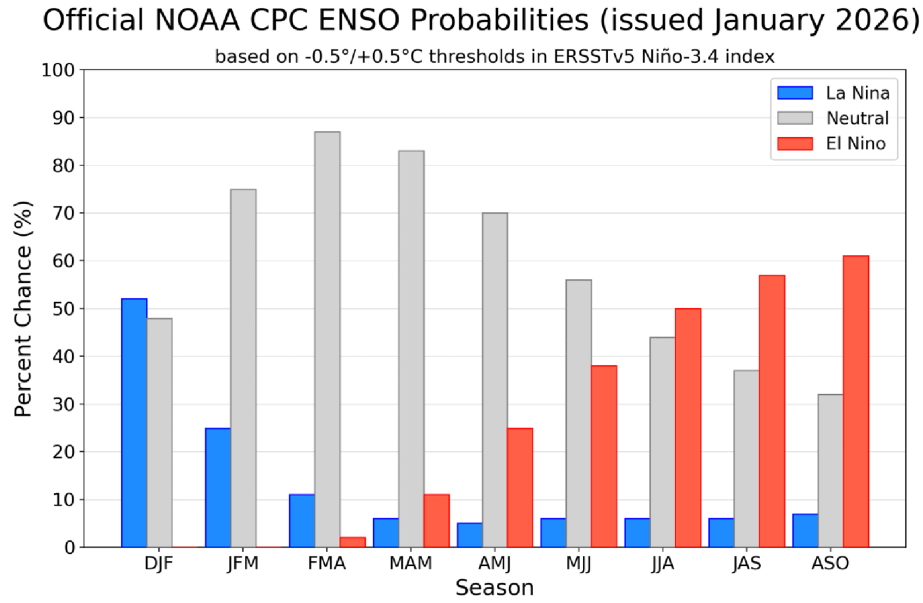
https://www.cpc.ncep.noaa.gov/products/forecasts/month_to_season_outlooks.php

The January–March seasonal temperature forecast **leans toward** **temperatures averaging above normal** **(40–50% chance) 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

ENSO forecasts favor **La Niña conditions** to persist through the December–February forecast window (labeled "DJF" in the chart above)—just barely, though. A near-equal probability is given for the chance of those months' season-average qualifying as **ENSO-neutral** conditions.

For the subsequent forecast windows, beginning with January–March (JFM), the forecast favors **ENSO-neutral** conditions.

El Niño is ruled out as a possibility for the current winter, but there is a small chance of transition to El Niño in spring 2026. By the summer forecast windows (JJA, JAS), the forecast models give greater chances of El Niño developing versus ENSO-neutral conditions persisting—the probability of La Niña returning in 2026 is apparently relatively low.

Take-home message: the Southwest should be prepared for warmer-than-normal, drier-than-normal conditions this winter and spring. However, the relationship between ENSO and regional climate is far from one-to-one—even if La Niña does persist through the

cool season, there is still a possibility of near-normal conditions, or even cooler-than-normal and wetter-than-normal conditions regionally or locally.

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.

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For feedback / requested revisions to report:

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

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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

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