Santa Cruz Basin Seasonal Climate Bulletin

March 2026

Data Available as of March 6, 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—March 2026

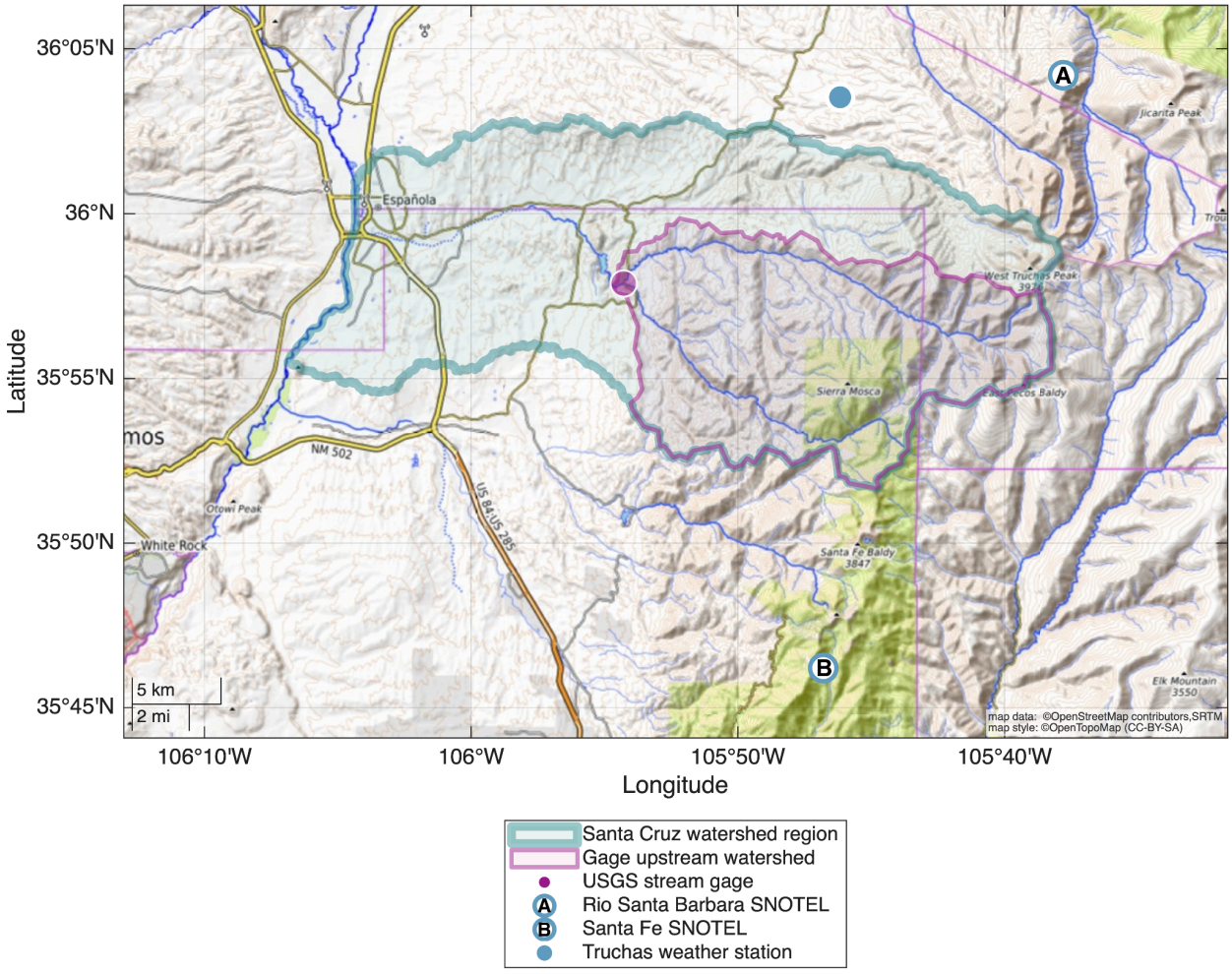
- **This past December–February was the warmest on record for the Santa Cruz region** and for much of New Mexico.
- **Below-normal winter snowpack** has resulted in part from high temperatures as well as precipitation shortfalls.
- **Seasonal forecasts** indicate the coming months are likely to be drier than normal and warmer than normal.
- **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.

Santa Cruz Region

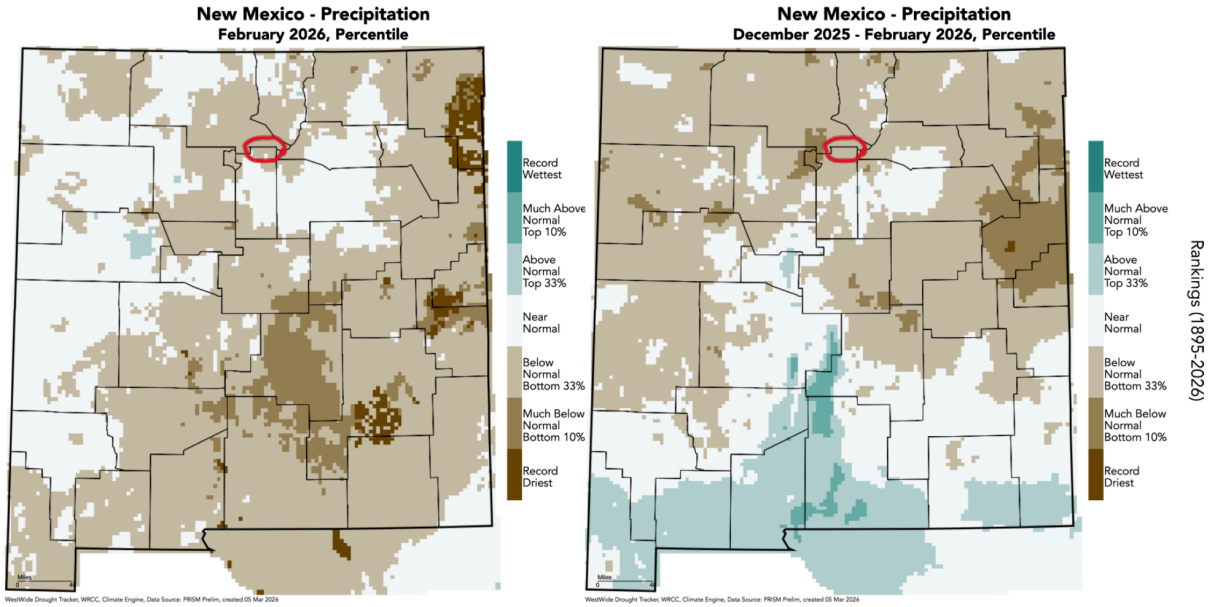
The map below shows the extent of the Santa Cruz watershed region and the locations of stations providing data for this bulletin: USGS stream gauge (contributing watershed also shown); snow telemetry (SNOTEL) stations at the Rio Santa Barbara, Santa Fe, and Tres Ritos sites; and the Truchas weather station.



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

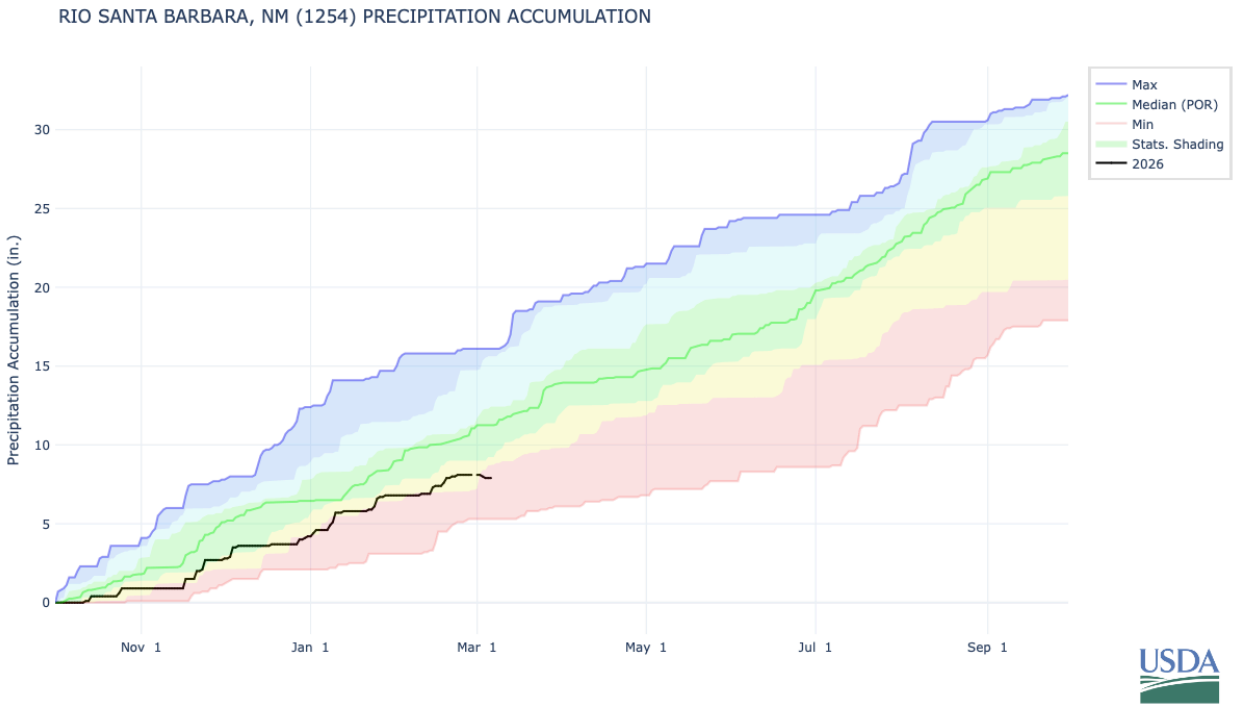
Station	February total	February % of normal	December–February total	December–February % of normal	Water year (Oct 2025–Feb 2026) total	Water year % of normal
Truchas	0.4 in.	39%	2.2 in.	54%	4.7 in.	61%
Santa Fe SNOTEL	1.7 in.	68%	5.7 in.	74%	9.6 in.	66%
Rio Santa Barbara SNOTEL	1.3 in.	-	5.3 in.	-	8.1 in.	-

February: 0.4 inches of rain at Truchas weather station
February precipitation in the Santa Cruz region was **below normal (ranking among the driest one-third of all years on record)**.

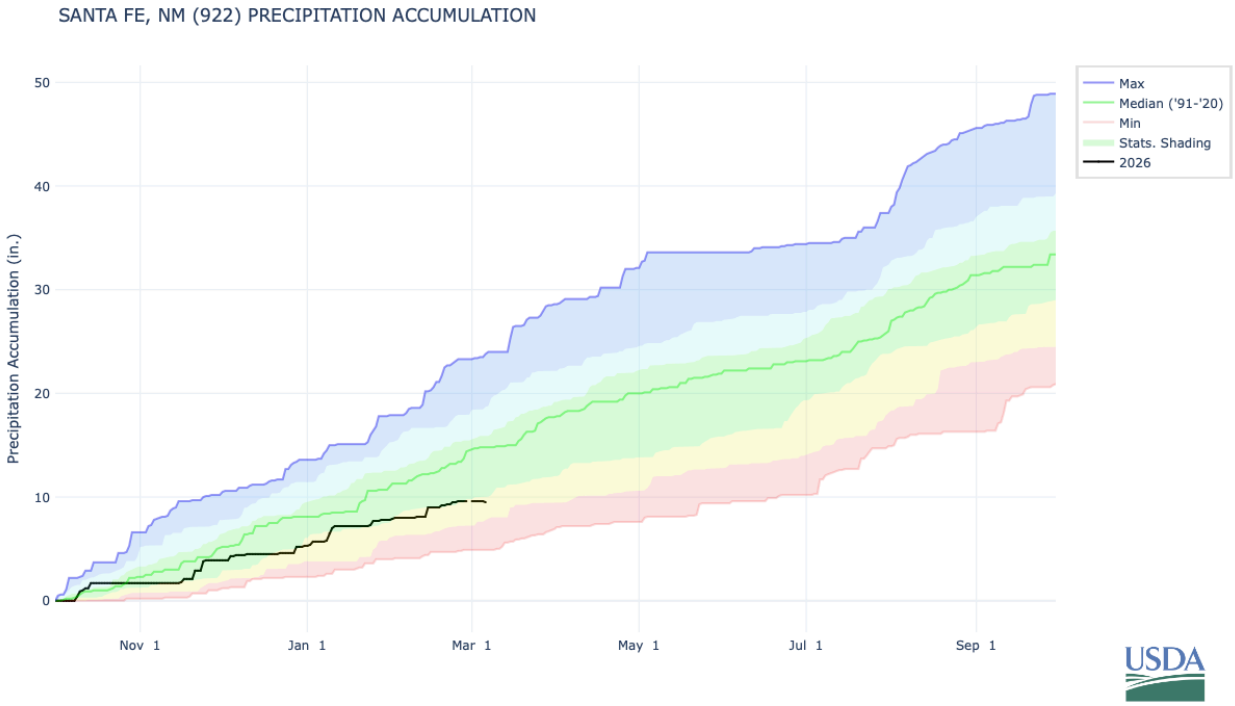
Water year to date: 4.7 inches of rain at Truchas weather station
Total precipitation for the water year so far was 61 percent of normal for the Truchas station and 66 percent of normal for the Santa Fe SNOTEL station.

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****.*



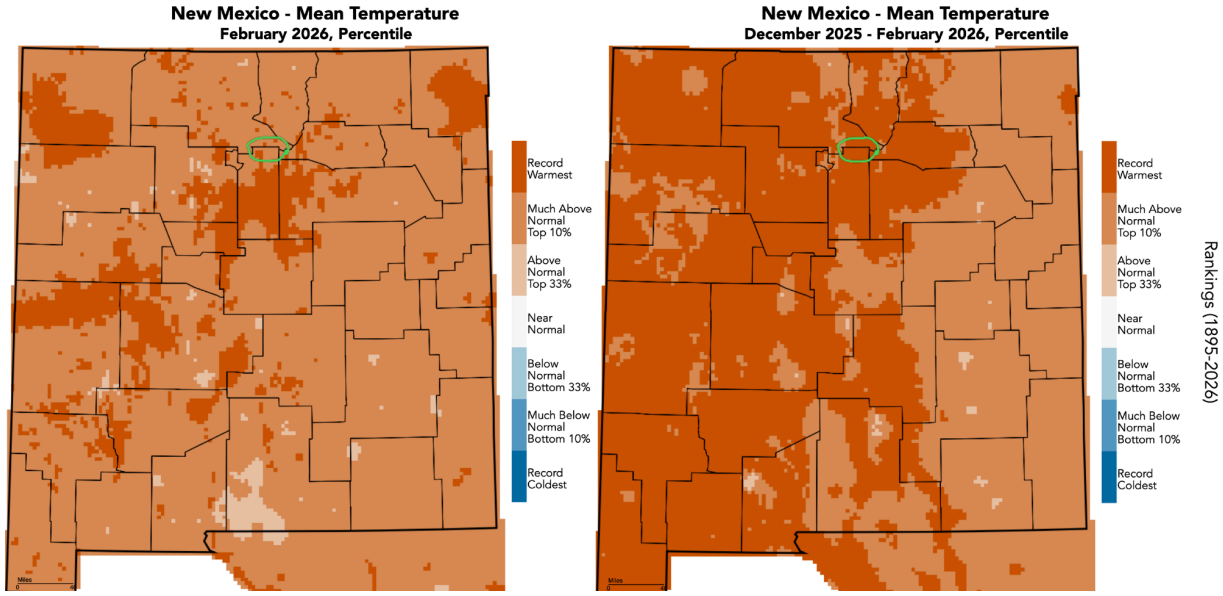
Precipitation at the Rio Santa Barbara SNOTEL site for the 2026 water year (black line) has generally been below normal. As of March 6, water-year total precipitation was 70% of normal for that date.



Water year precipitation accumulation at Santa Fe SNOTEL station was within the range considered to be near normal (**green shading**) in mid-January after a significant precipitation event in early January, but since then, the total accumulation has generally been below normal (yellow shading, or falling in the bottom 30% of the records for the corresponding date).

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.***



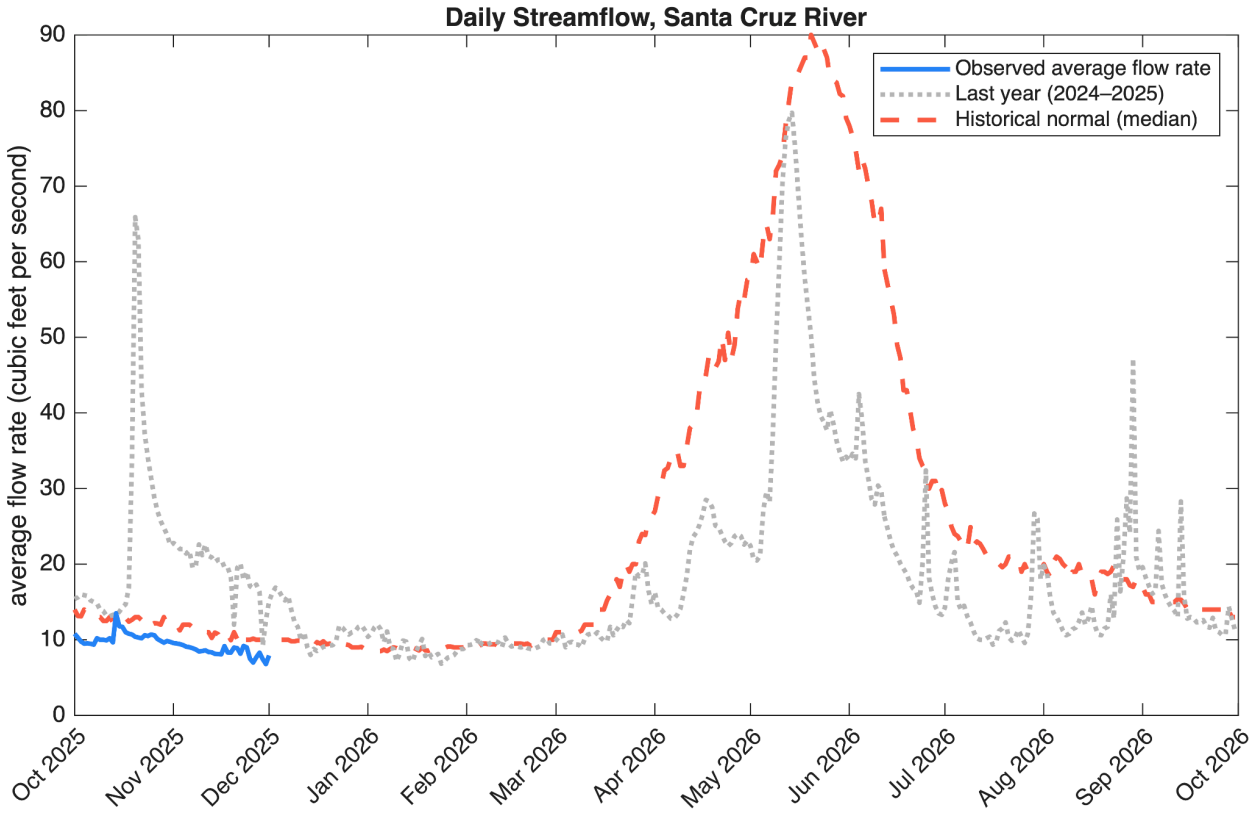
Average temperatures in February 2026 (left) for the Santa Cruz region were much above normal (ranking among the warmest 10% of years on record).

Overall, the recent three-month average (right; December 2025–February 2026) temperatures were **the warmest 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)

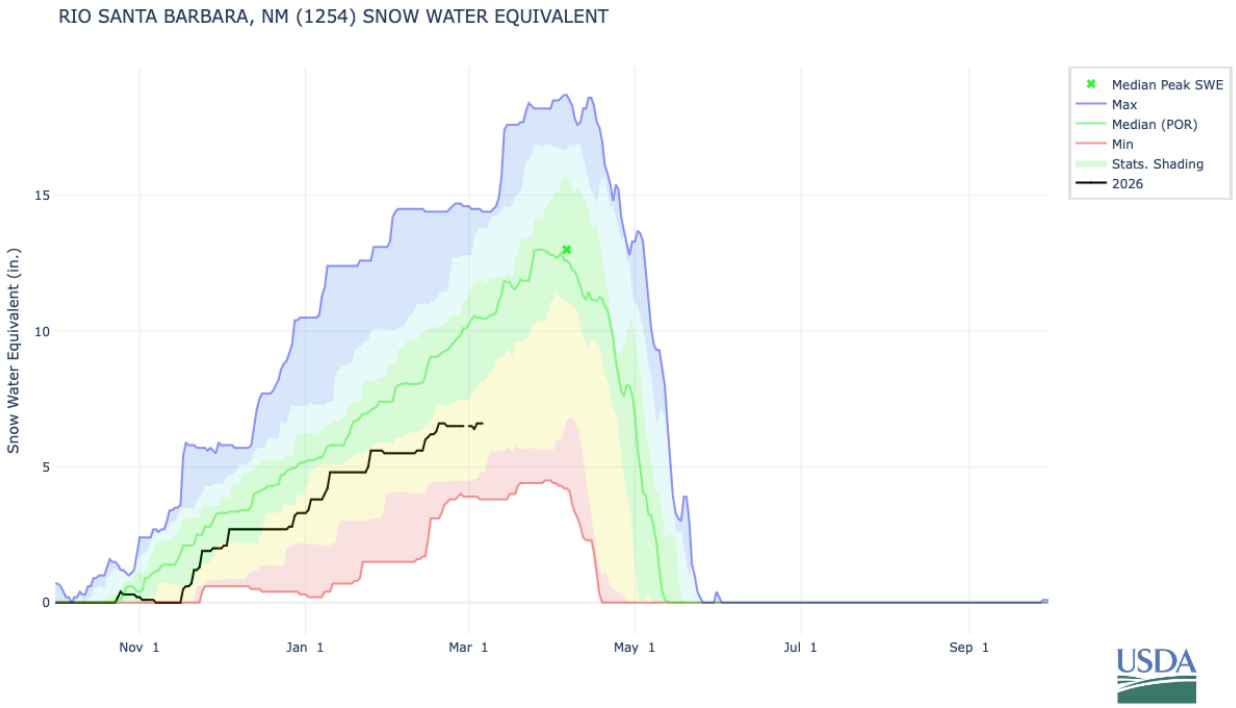


Data for streamflow measurements after December 1, 2025 have been unavailable. USGS reports the stream gage is affected by ice. Normal streamflow rates at the beginning of March are similar to rates of flow during the winter months, but by the end of March, its normal for flow rates to have increased by 2x. Last year, the flow increased in late March, but then fell back down, and remained much below normal during nearly the entire snowmelt season.

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

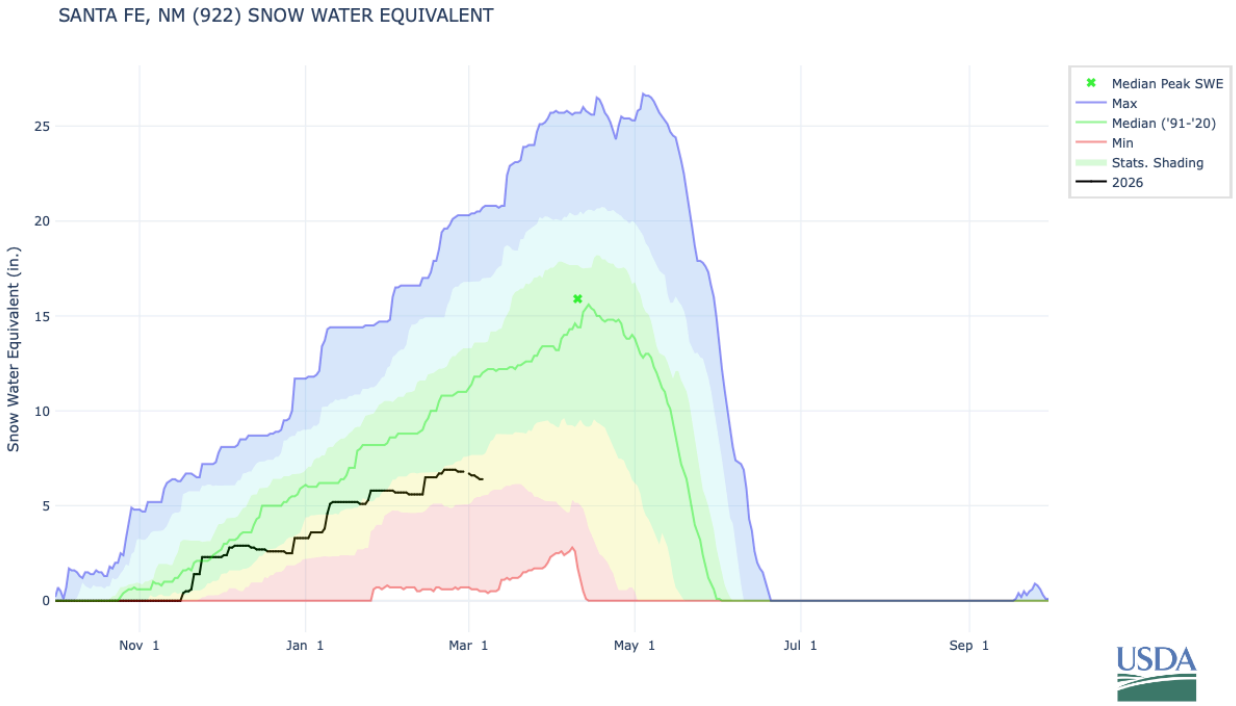
Snow (Snow Water Equivalent)

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

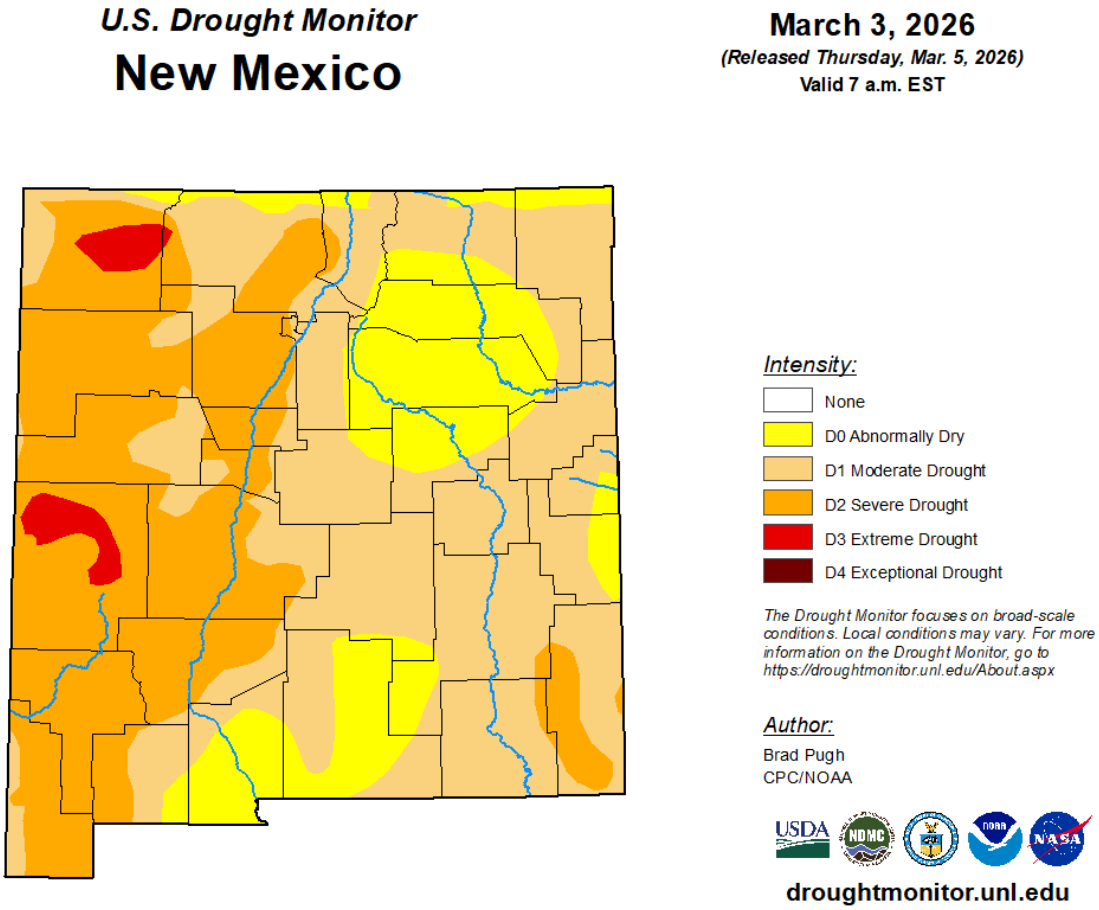
Since mid-December, snowpack for the 2026 season **(black line)** has been in the range considered below normal (yellow shading; values falling in the bottom 30% of the records for a given date) at the Rio Santa Barbara SNOTEL station. As of March 6, it is 63% of normal for this time of year.



Snowpack at the Santa Fe SNOTEL station declined during the mid-December period of exceptionally warm temperatures, when there was also little-to-no precipitation. Similar declines have occurred since—in late January, in February, and in early March—leaving snowpack at 53% of normal at the most recent observation.

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.



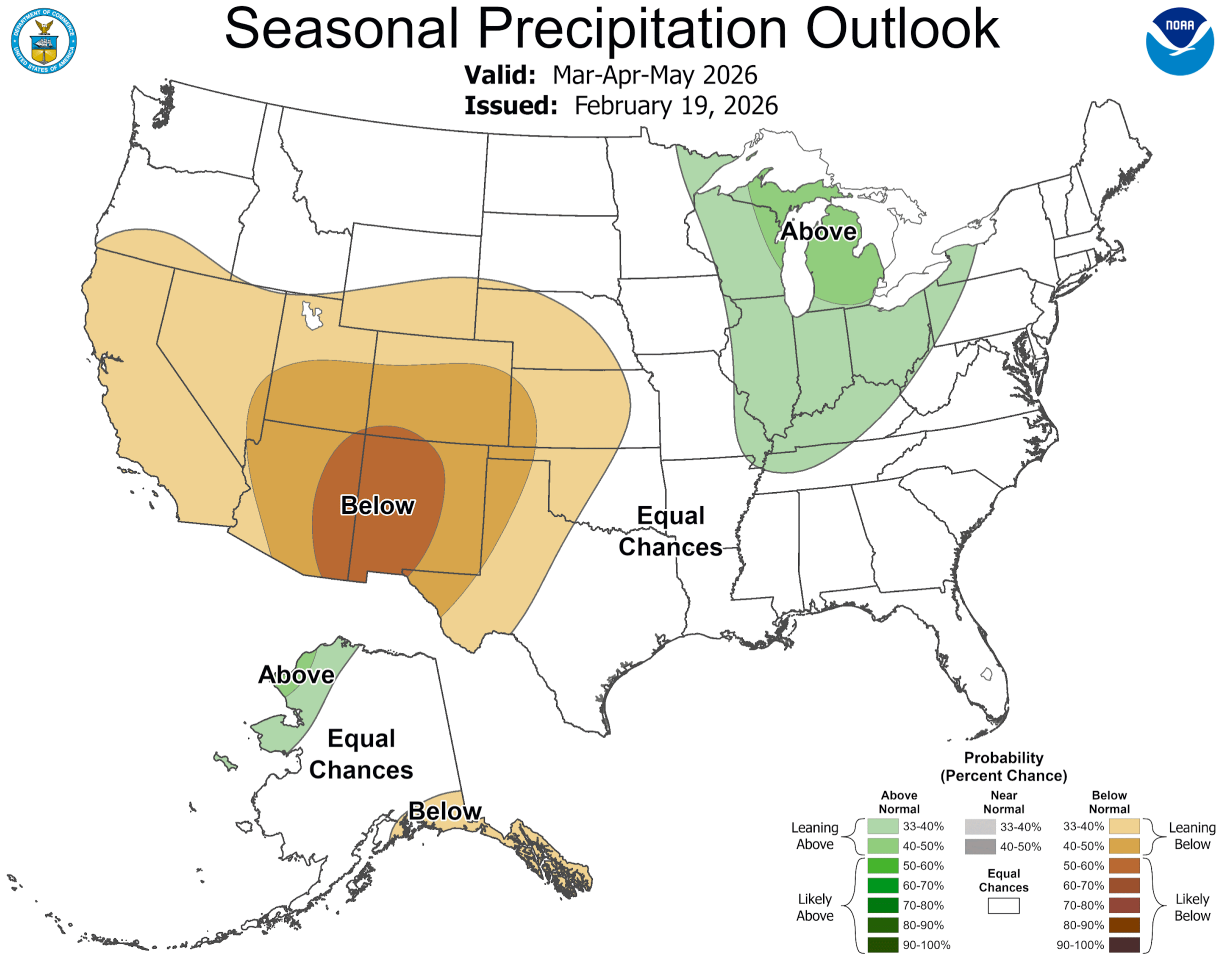
https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM

As of early March, the Santa Cruz region was considered to be in **moderate drought (D1)**. Moderate drought corresponds to drought conditions that historically occurred on average once every five to ten years.

Seasonal Outlook

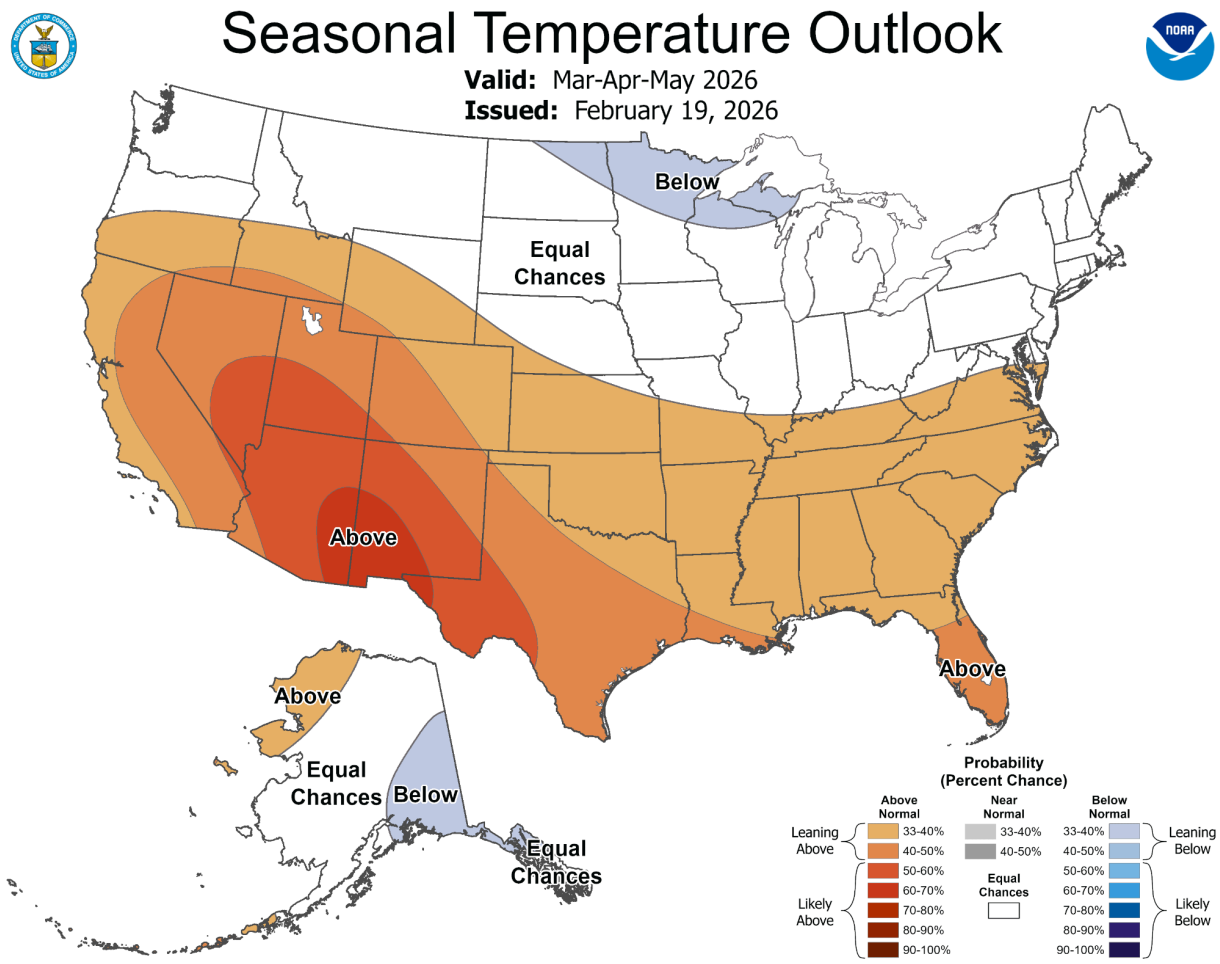
NOAA Climate Prediction Center (CPC) produces seasonal forecasts for different time scales (one week to 3-month), and a range of lead-times (Day 8-14 to next year). The seasonal climate outlooks are not predictions for the upcoming months, but are estimates for the probability of the precipitation or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

The March–May seasonal precipitation forecast indicates **below-normal precipitation** **is *likely* (50–60% chance) for the Santa Cruz region**.



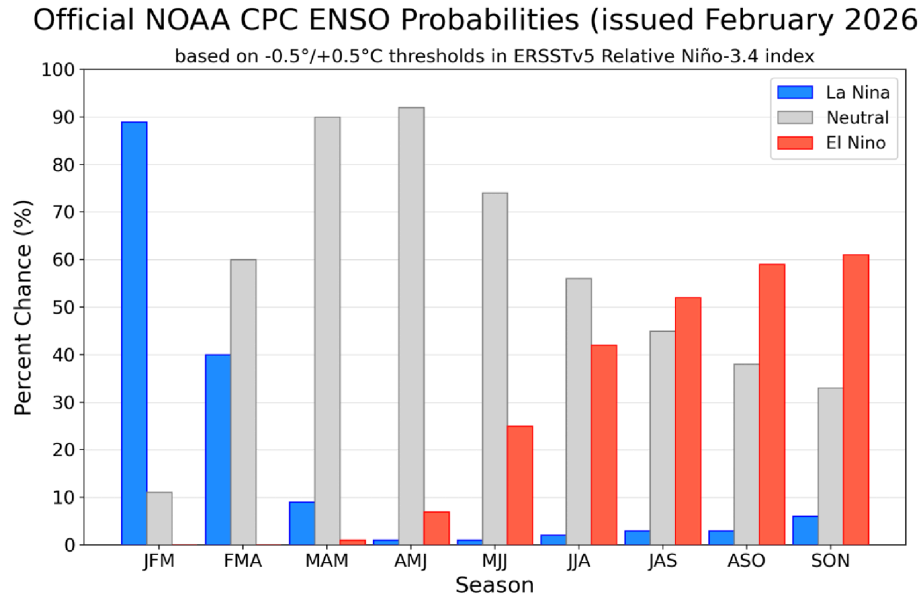
https://www.cpc.ncep.noaa.gov/products/forecasts/month_to_season_outlooks.php

The March–May seasonal temperature forecast indicates **temperatures averaging above normal are likely (50–60% 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

La Niña conditions persisted through the recent fall and winter months, but forecast models are indicating an ongoing transition toward **ENSO-neutral** conditions.

Beginning with the February–April forecast window (FMA), the forecast models favor **ENSO-neutral** conditions (60% chance) over a persisting La Niña (40% chance).

El Niño is ruled out as a possibility for the current late winter–early spring, but there is a small chance of transition to El Niño later in spring 2026. By the July–September forecast window (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: La Niña conditions are likely fading, to be replaced by ENSO-neutral conditions, which don't have a consistent influence on seasonal climate. A forecast for the remaining cool season months based on ENSO status alone would give equal chances to above-normal, near-normal, and below-normal precipitation.

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:

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For NM specific climate questions:

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For support with adaptation strategies: Serafina Lombardi, NMAA

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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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