

KERRY JONES,
USFS/SOUTHWEST REGION

RICH NADEN,
SW PREDICTIVE SERVICES

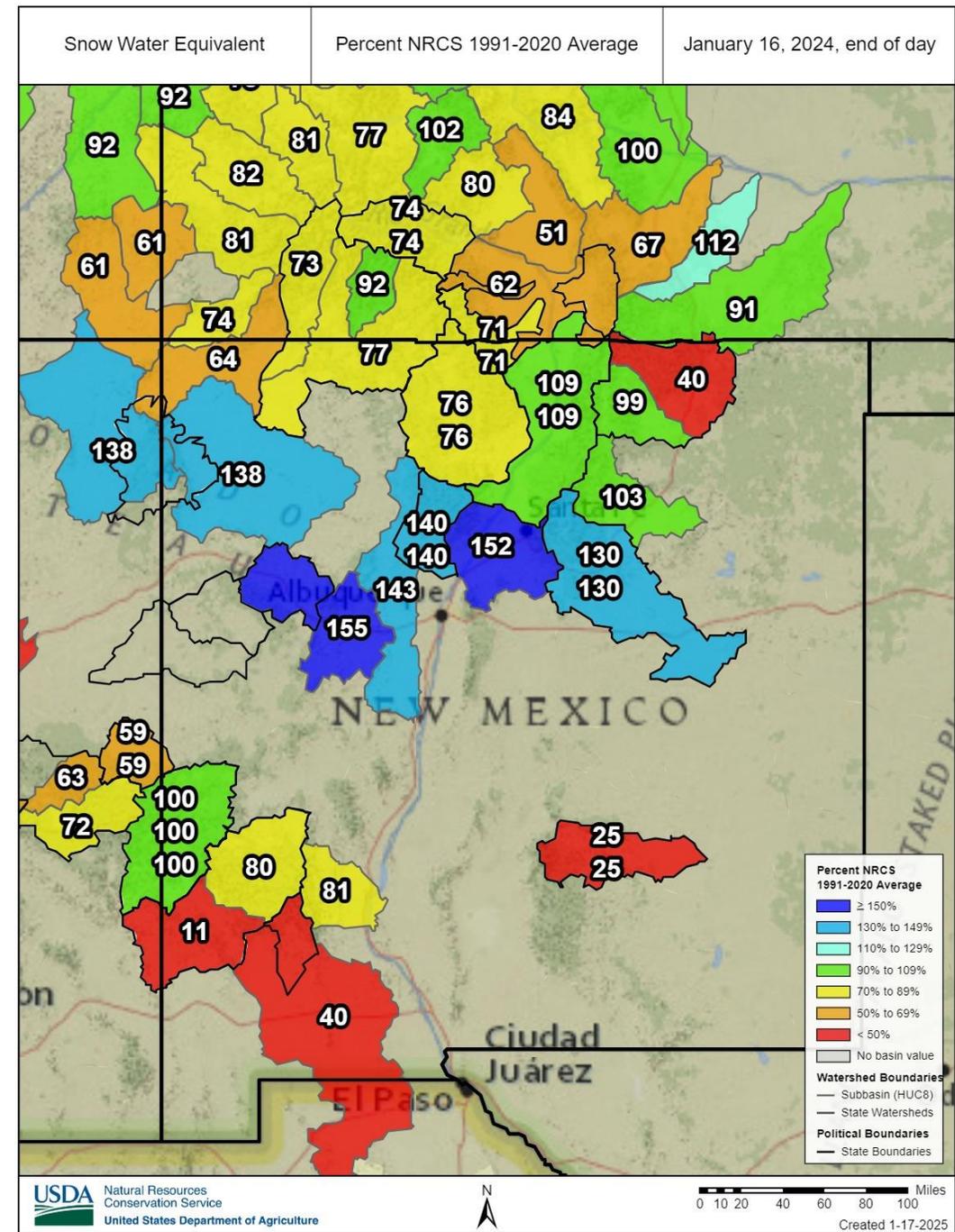
2025 FIRE SEASON OUTLOOK



January 16, 2025



January 14, 2024





Snow survey course and measurement stake (150 cm/~5') near the 10K trailhead in the Sandias courtesy of Adrian Marzilliano, UNM

Mid-January Conditions:

- Current depth: 13-14" (52%)
- 2024: 31-32" (133%)
- Average depth: Estimated 24-27"





12-31-24



12-31-23

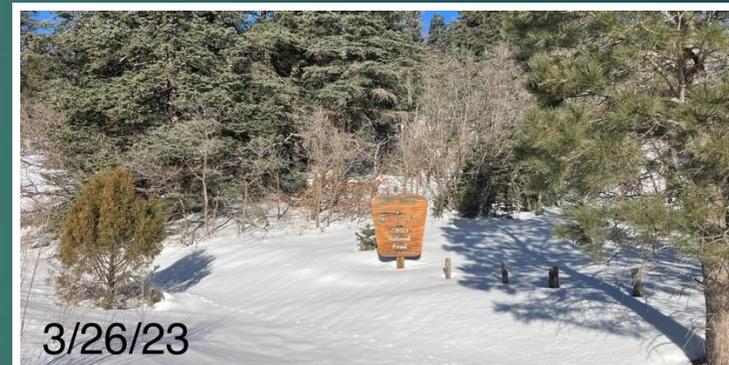
High
Elevation
Snowpack
Limping
Along

Importance of Mid Elevation Snowpack

'24 Strong El Niño



'23 Rapidly Fading
Weak La Niña

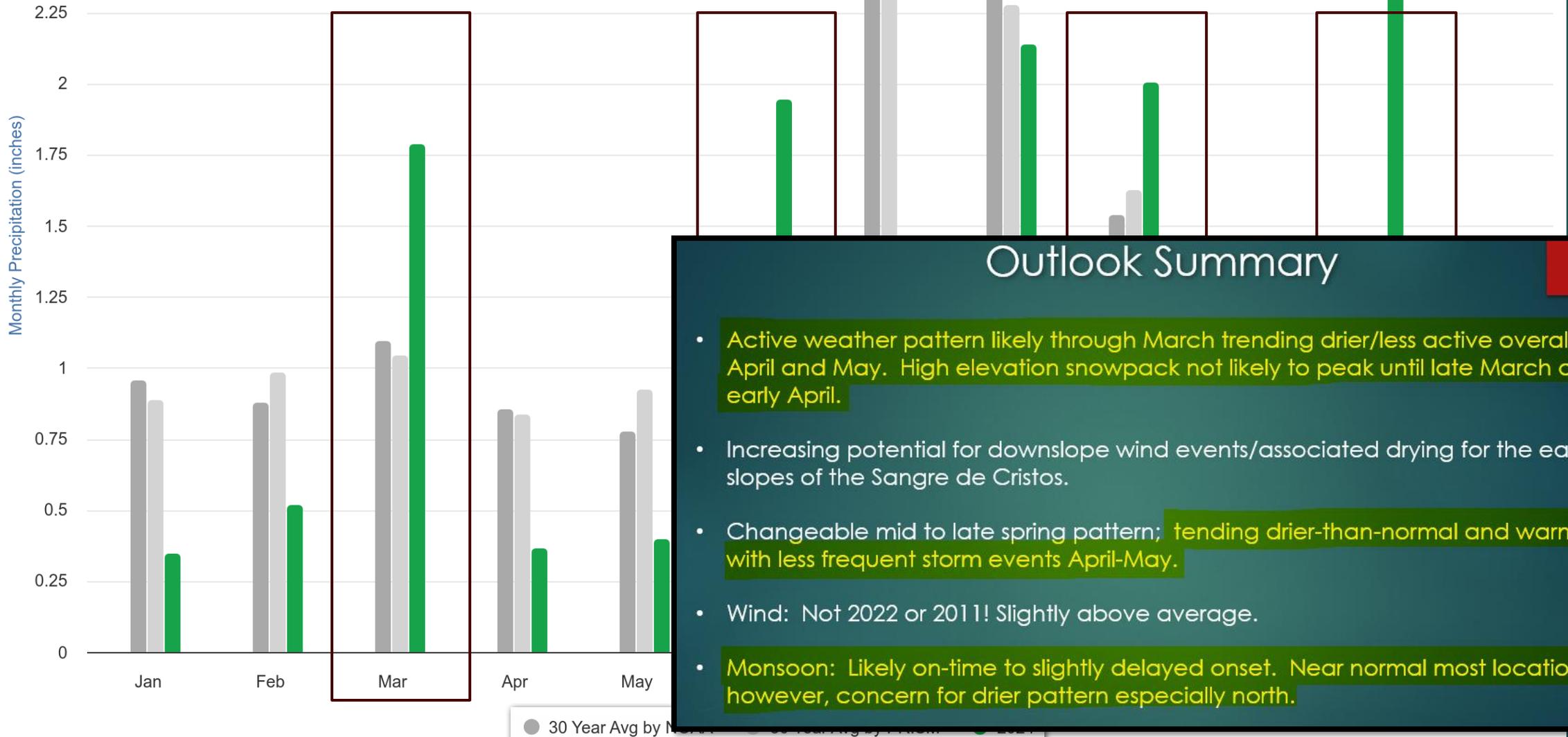


'22 Moderate La Niña



2024 Precipitation East Mountains

4 miles east of Sandia Park



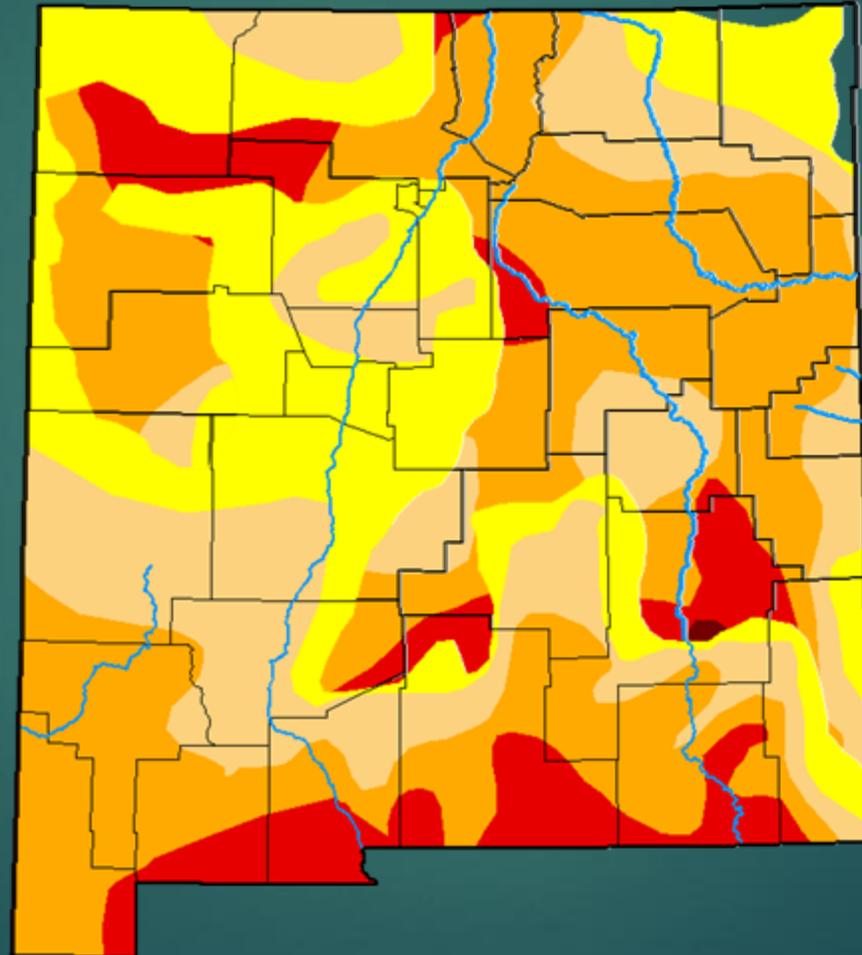
Outlook Summary

- Active weather pattern likely through March trending drier/less active overall April and May. High elevation snowpack not likely to peak until late March or early April.
- Increasing potential for downslope wind events/associated drying for the east slopes of the Sangre de Cristos.
- Changeable mid to late spring pattern; tending drier-than-normal and warmer with less frequent storm events April-May.
- Wind: Not 2022 or 2011! Slightly above average.
- Monsoon: Likely on-time to slightly delayed onset. Near normal most locations; however, concern for drier pattern especially north.

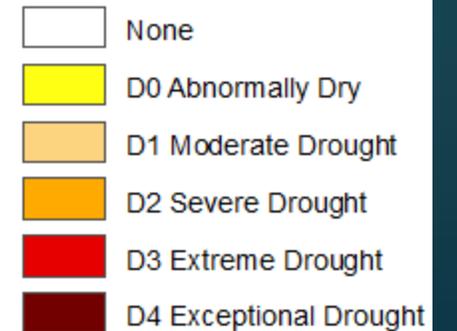
Latest Drought Monitor

Updated Weekly

January 7, 2025

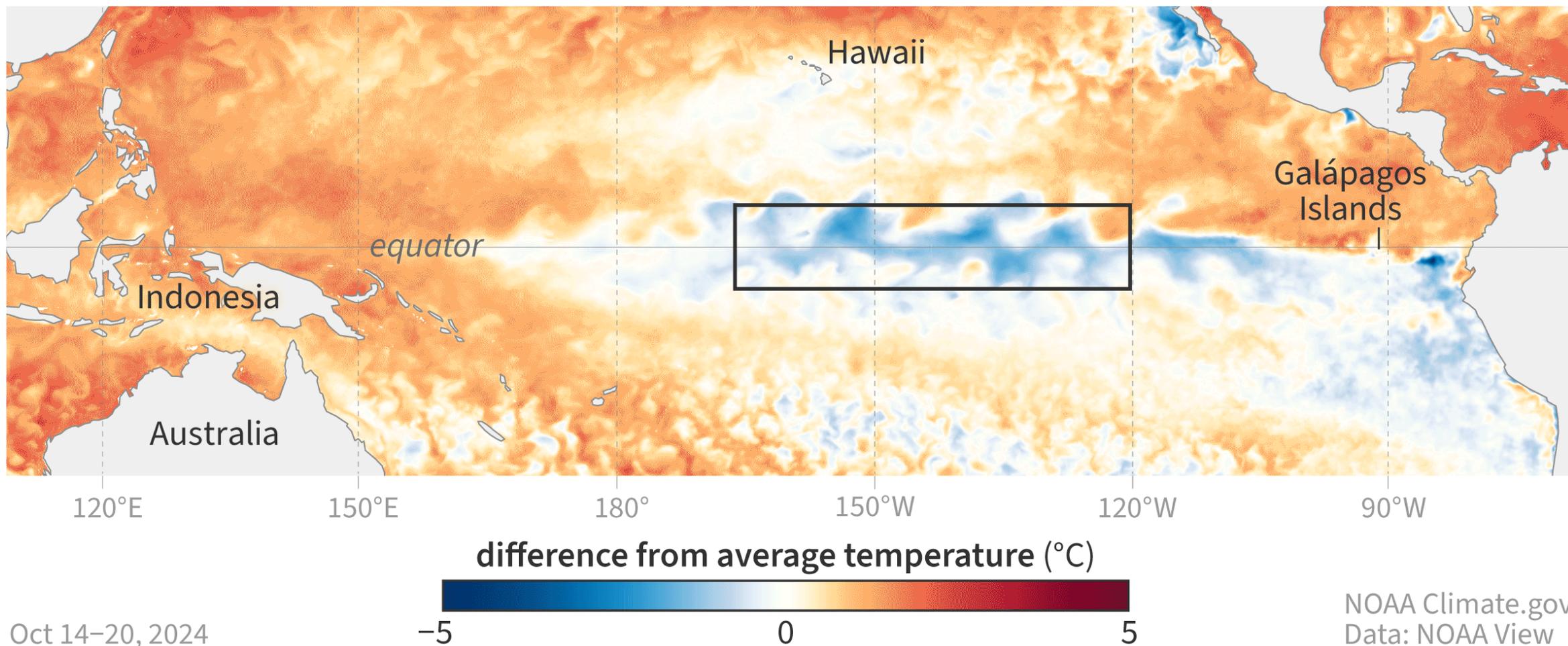


Intensity:



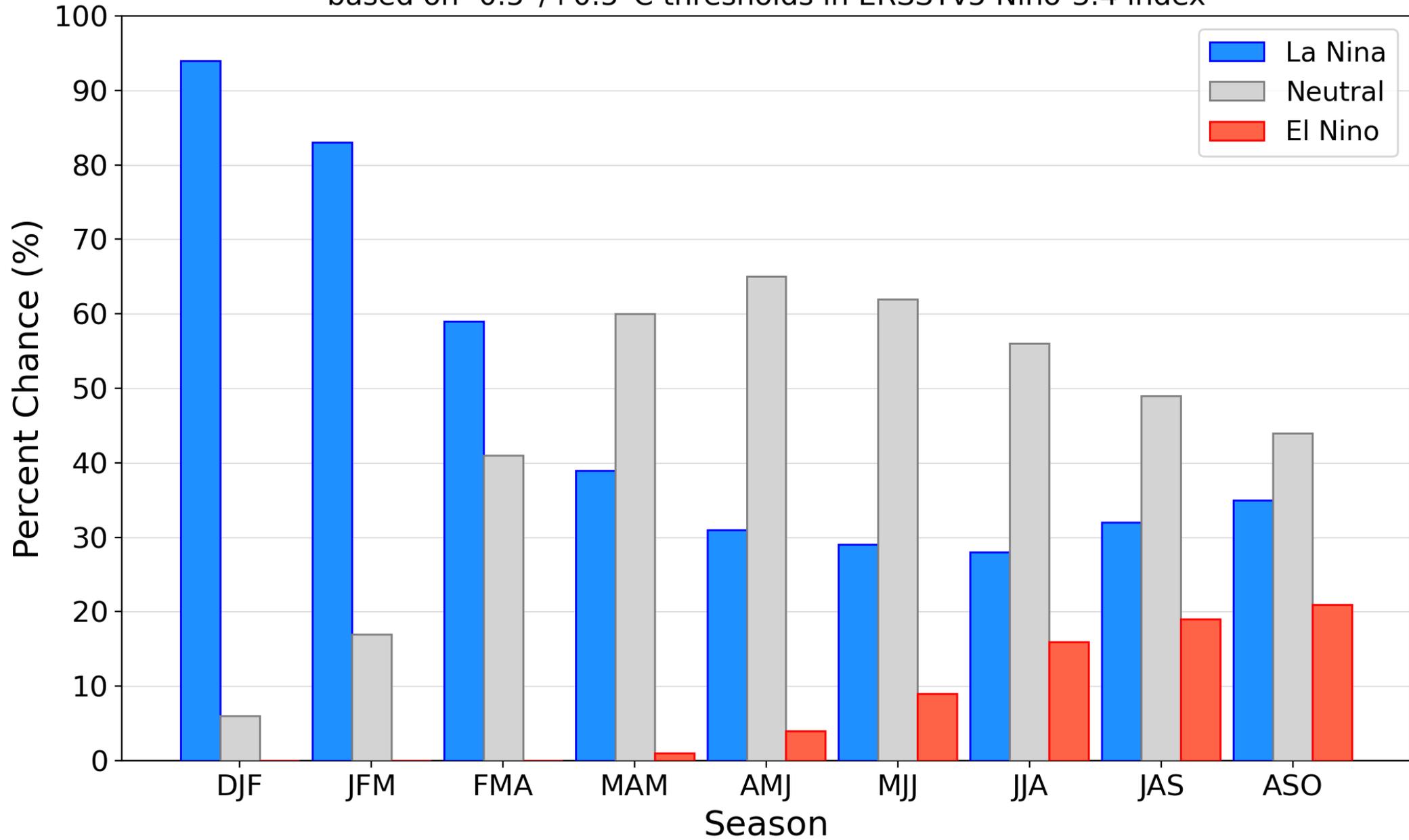
(Weak) La Niña is “Officially” in Place!

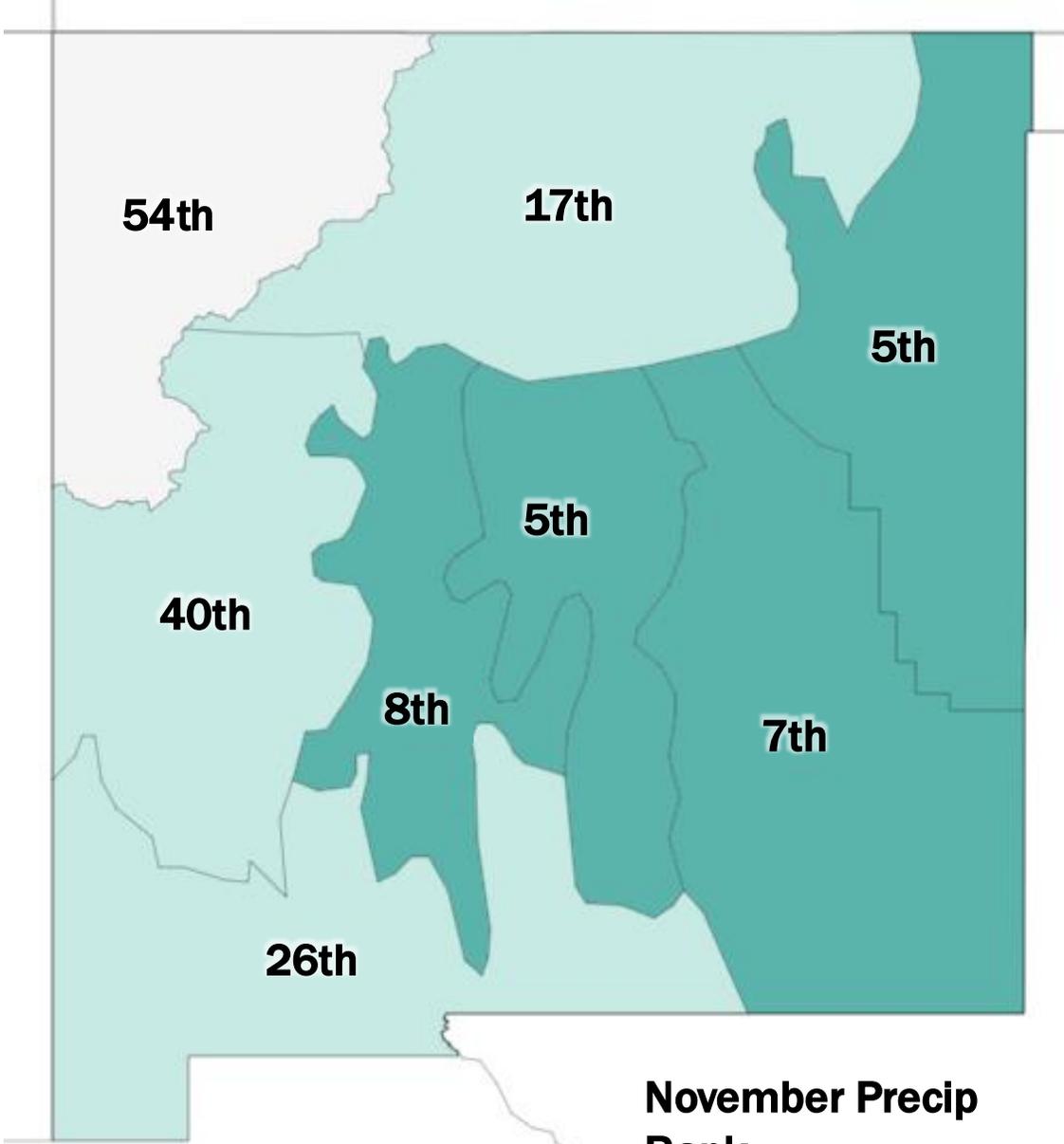
Weekly sea surface temperature patterns in tropical Pacific (Oct 14, 2024–Jan 5, 2025)



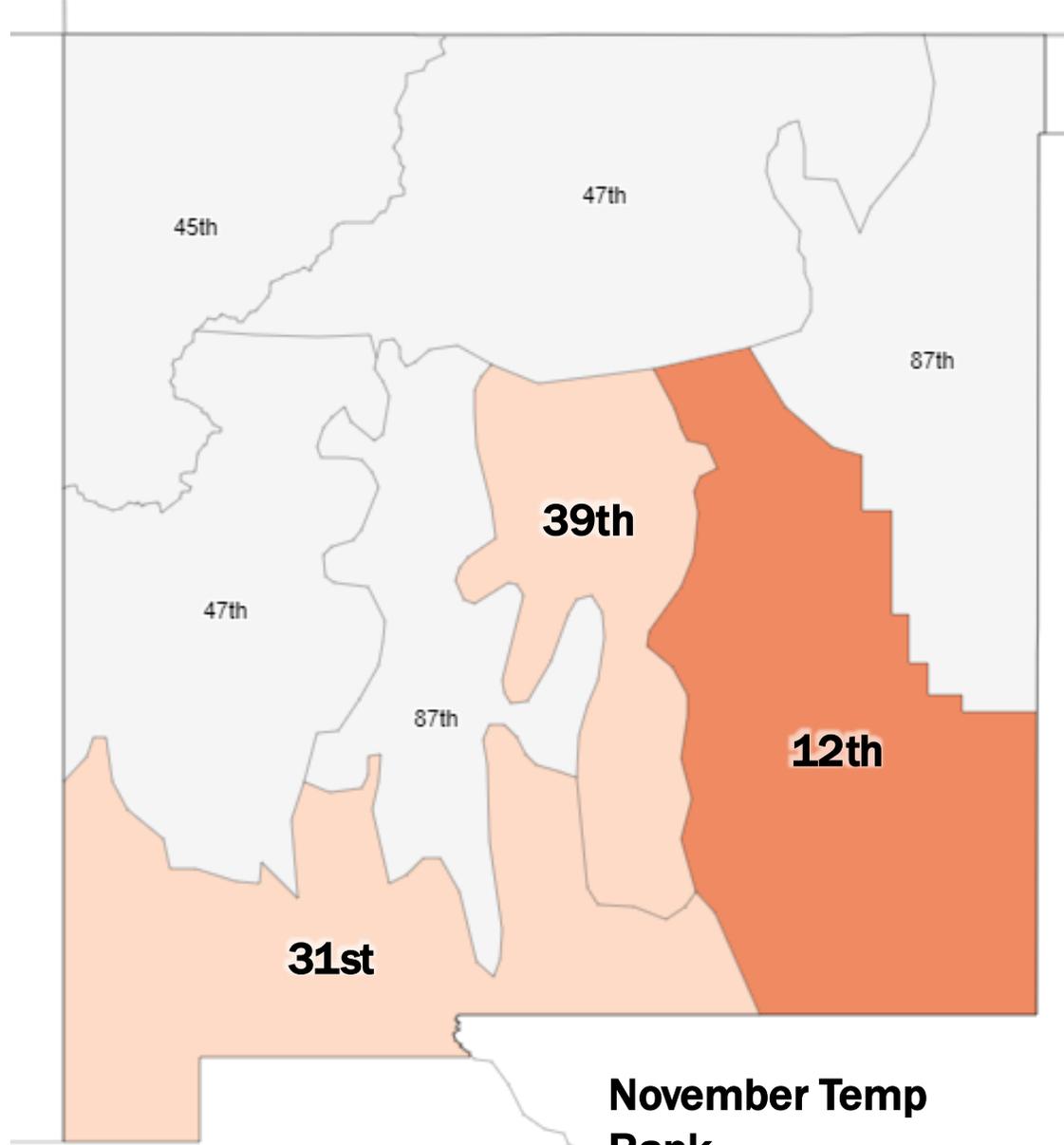
Official NOAA CPC ENSO Probabilities (issued January 2025)

based on $-0.5^{\circ}/+0.5^{\circ}\text{C}$ thresholds in ERSSTv5 Niño-3.4 index





November Precip Rank



November Temp Rank

Other Teleconnections/Influencers

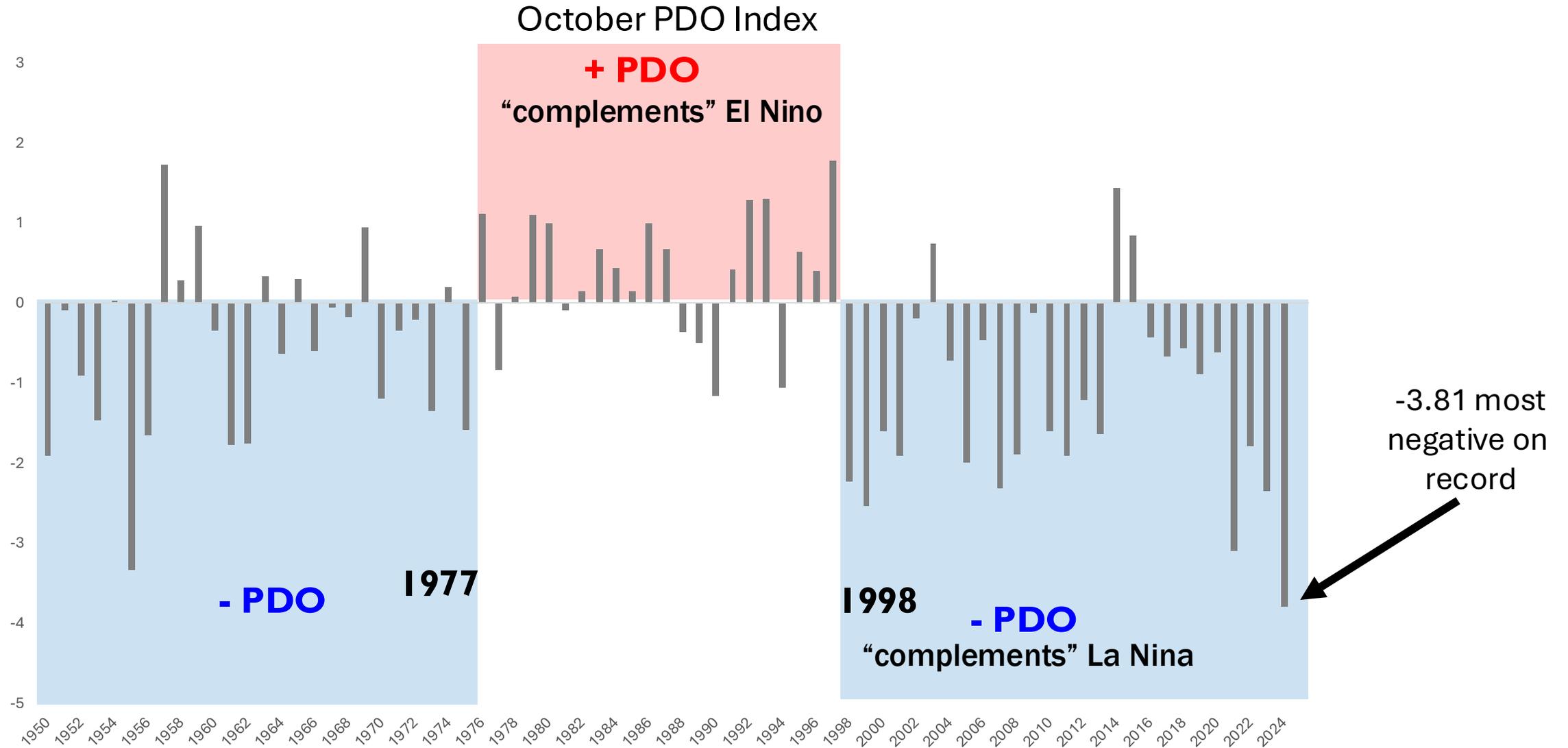
Pacific Decadal Oscillation (PDO)

Positive PDO occurs when SSTs are anomalously cool in the interior North Pacific and warm along the Pacific Coast

Negative PDO occurs when **warm SST anomalies are in the interior North Pacific** and cool SST anomalies along the Pacific Coast.

**Negative phase of the PDO
tends to “complement” La Nina...**

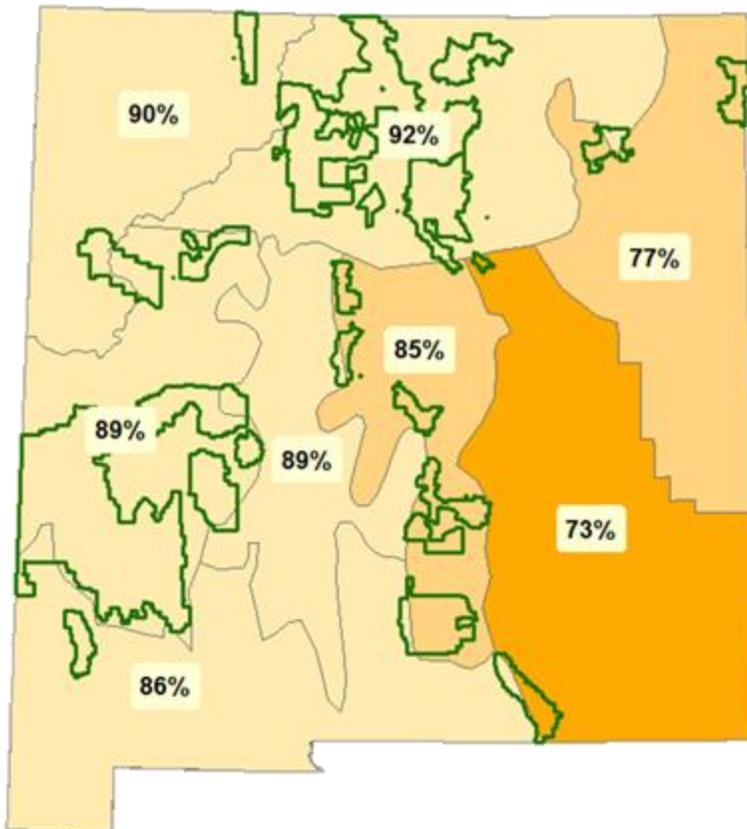
Pacific Decadal Oscillation



Historical Observations for Winter & Spring

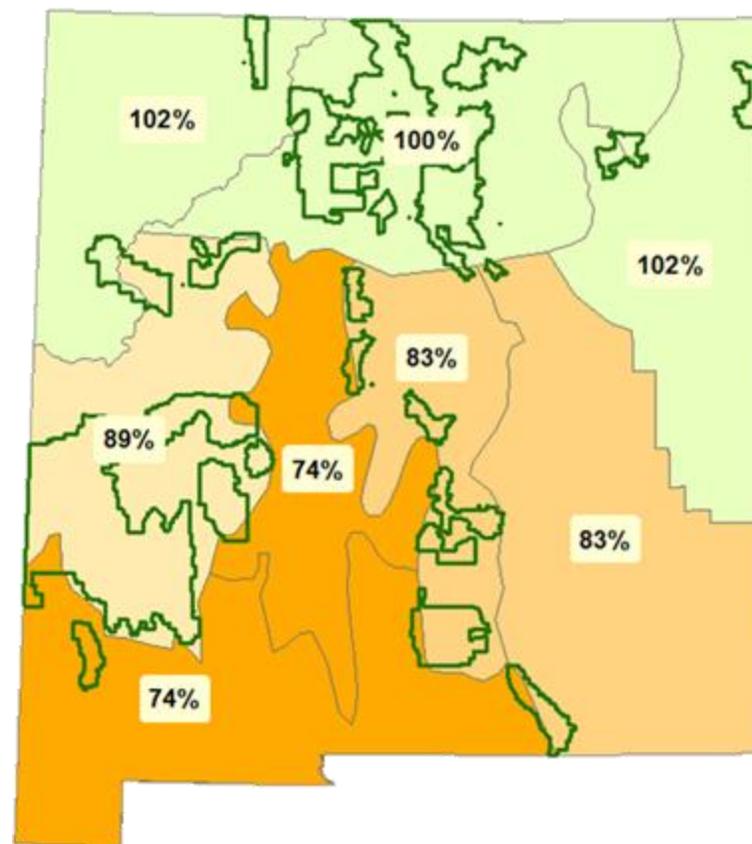
DJF

All WEAK La Niña (11 events)



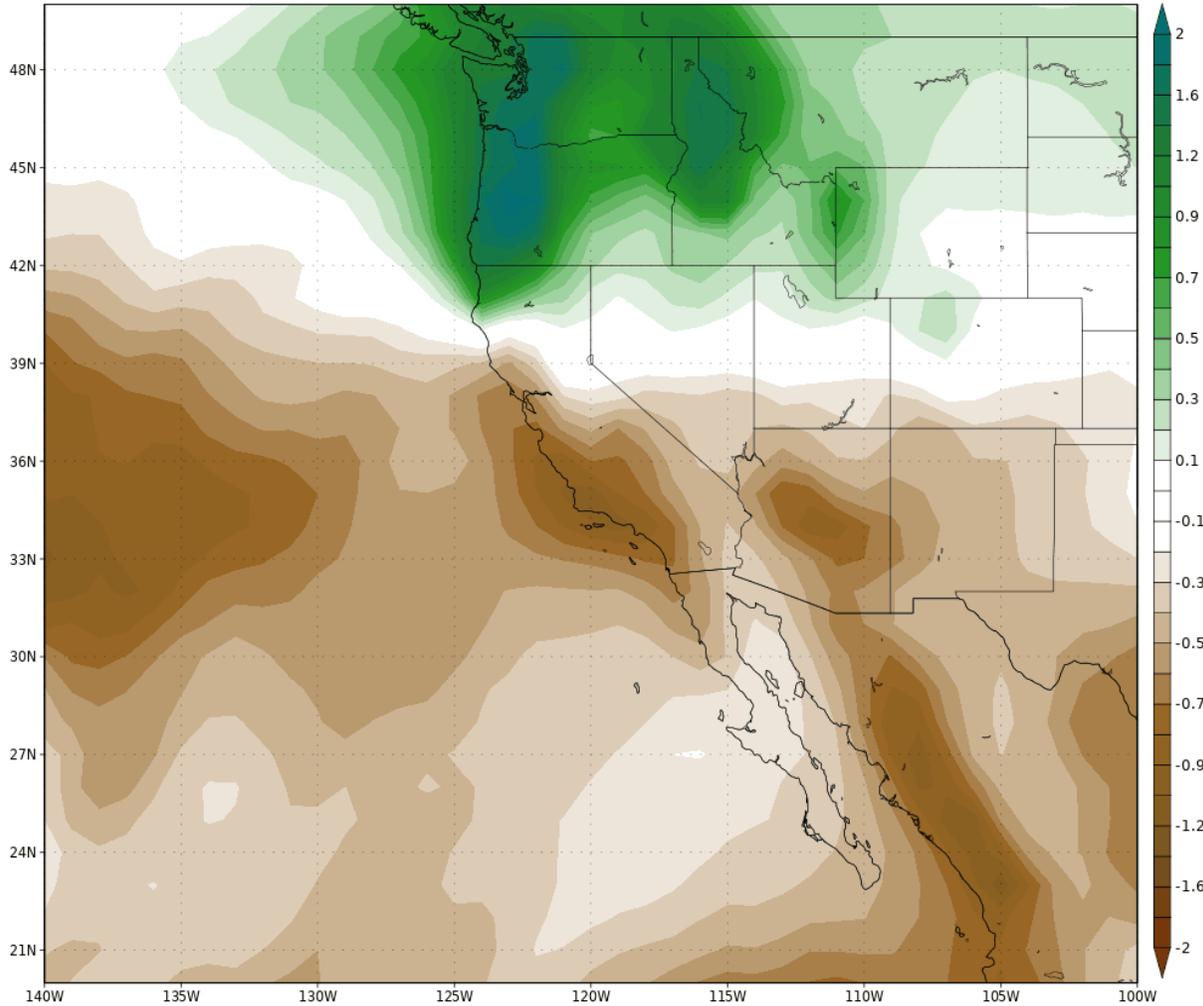
MAM

All Weak La Niña (11 events)

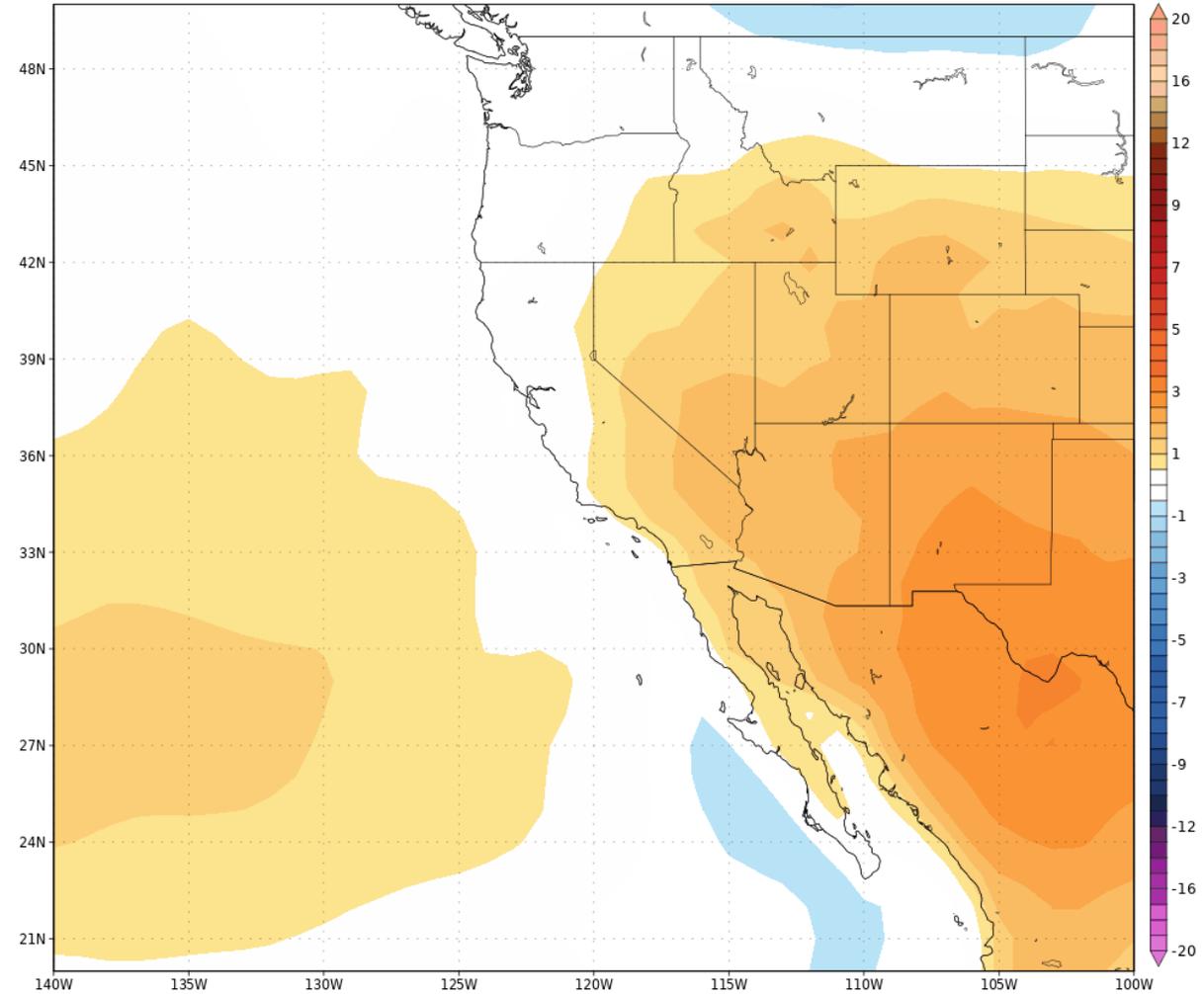


What Do the Latest Models Show?

Init: Jan 8, 2025 • Valid: Feb 2025 • Alex Boreham • cyclonicwx.com
NMME Precip Rate Anomaly [mm/day]



Init: Jan 8, 2025 • Valid: Feb 2025 • Alex Boreham • cyclonicwx.com
NMME 2 Meter Temperature Anomaly [°C]



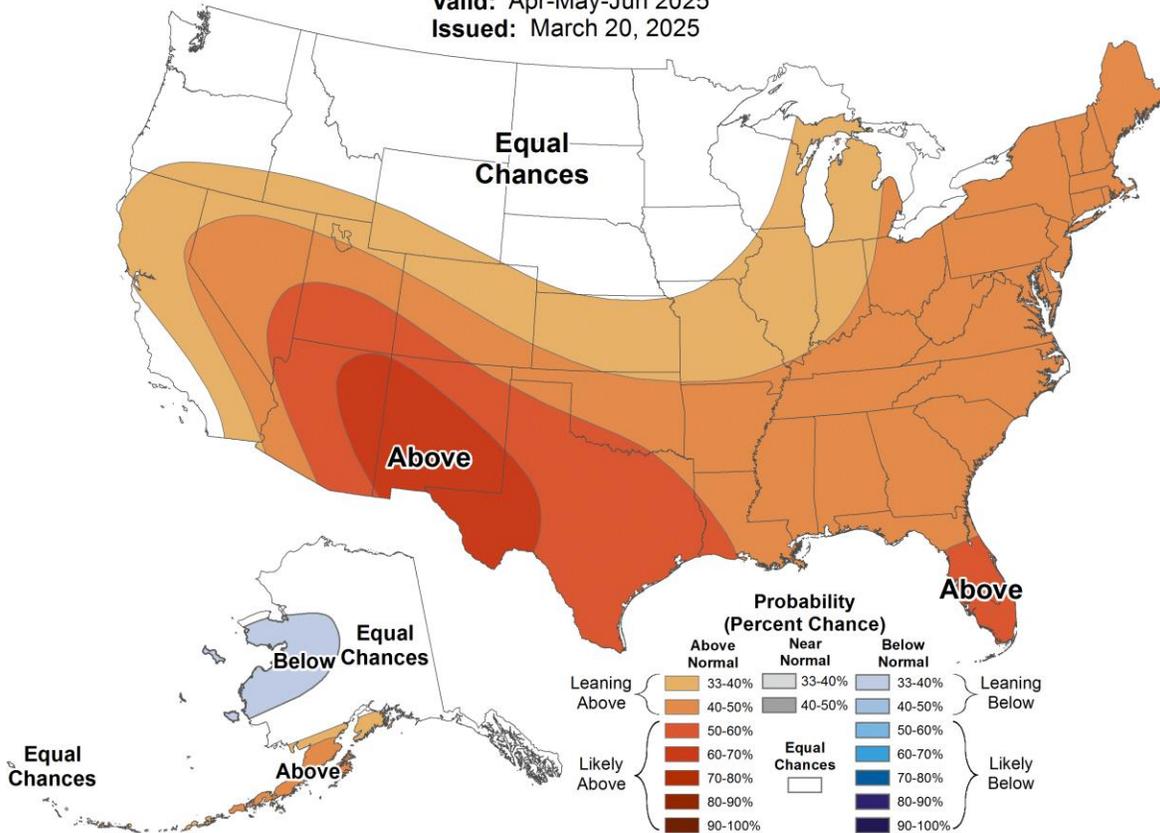
February – April 2025



Seasonal Temperature Outlook



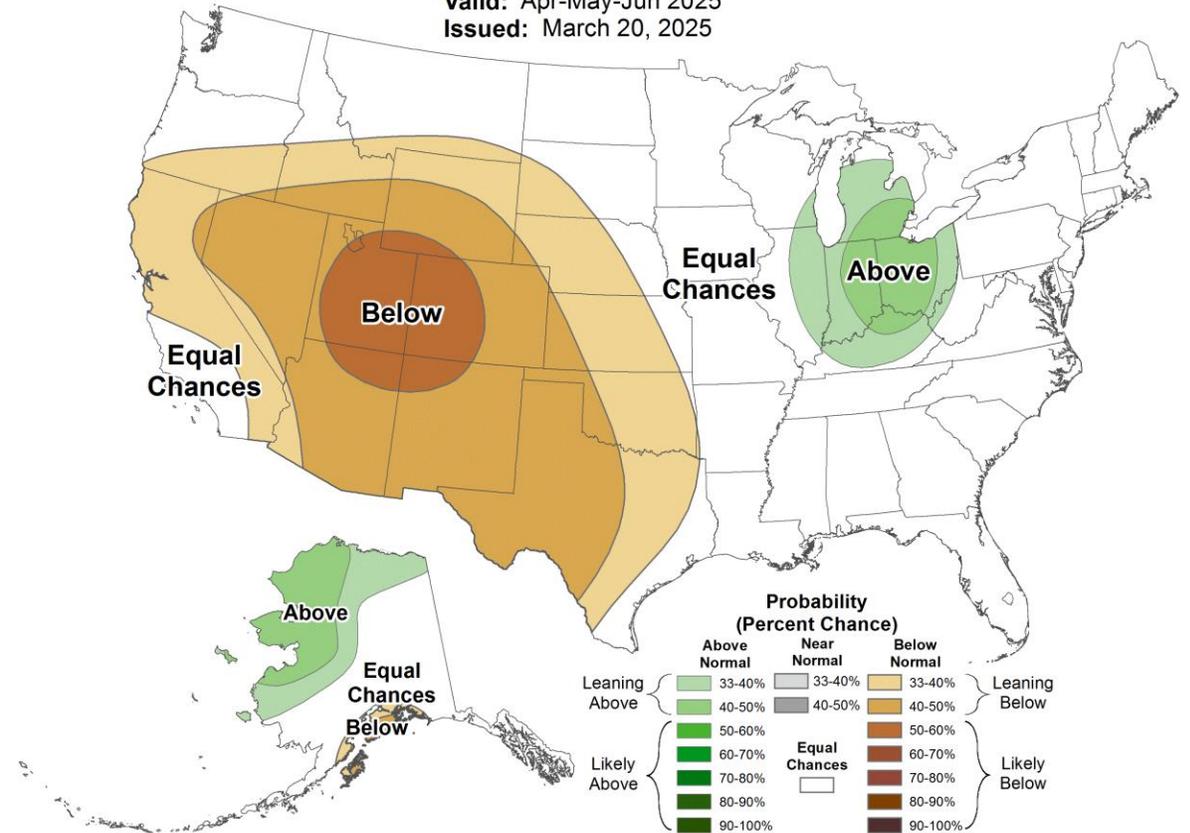
Valid: Apr-May-Jun 2025
 Issued: March 20, 2025



Seasonal Precipitation Outlook



Valid: Apr-May-Jun 2025
 Issued: March 20, 2025



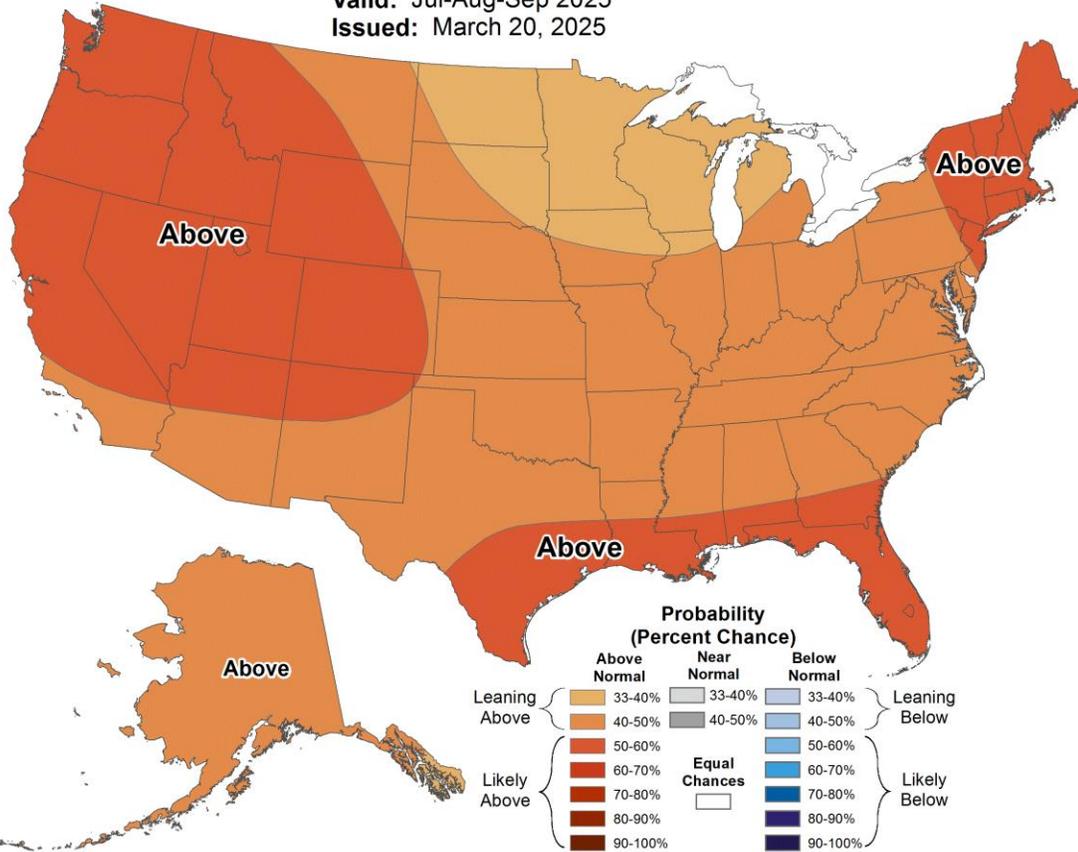
May – July 2025



Seasonal Temperature Outlook



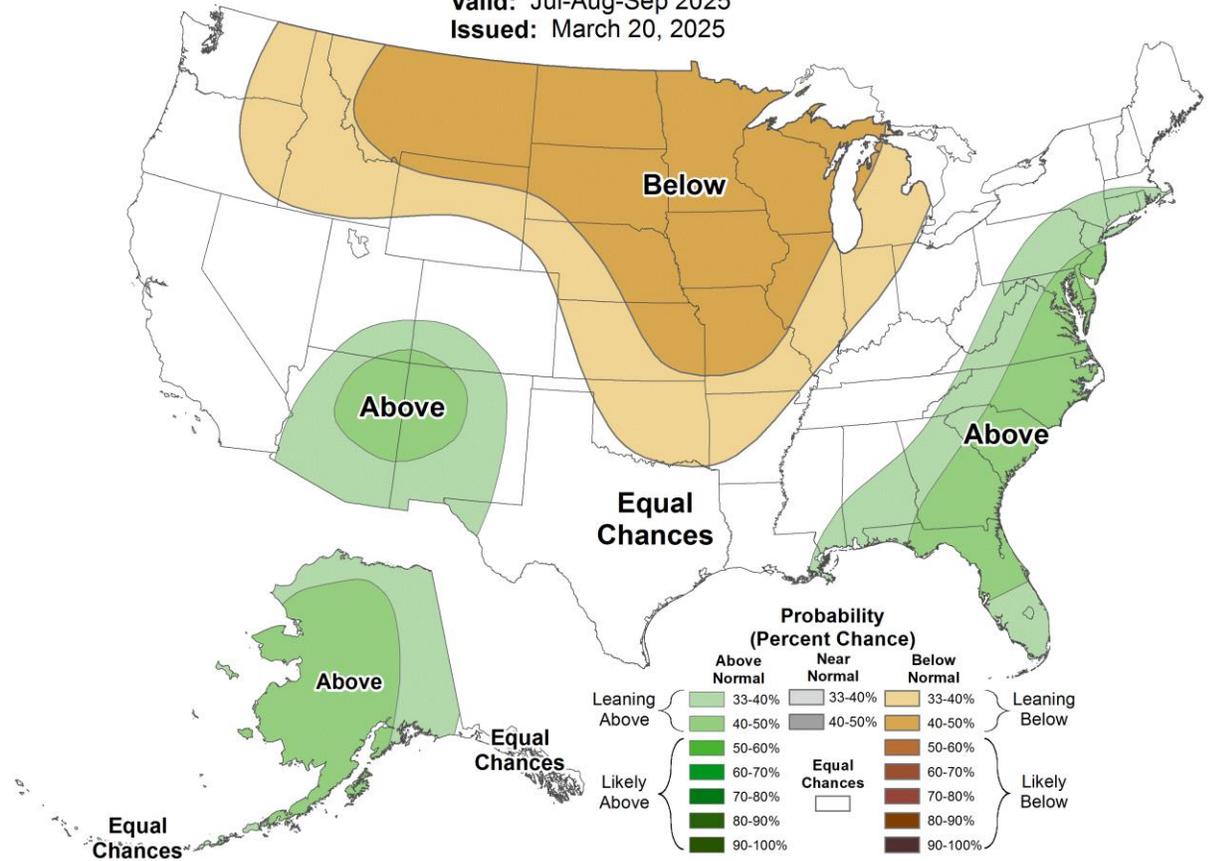
Valid: Jul-Aug-Sep 2025
Issued: March 20, 2025



Seasonal Precipitation Outlook

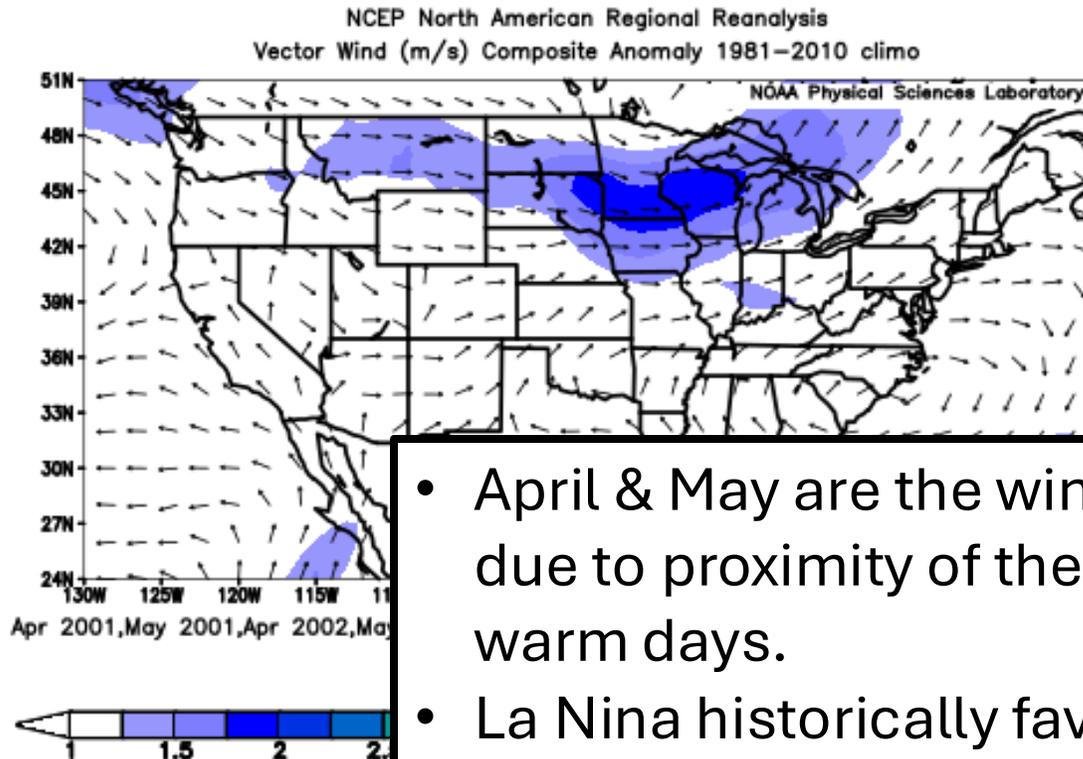


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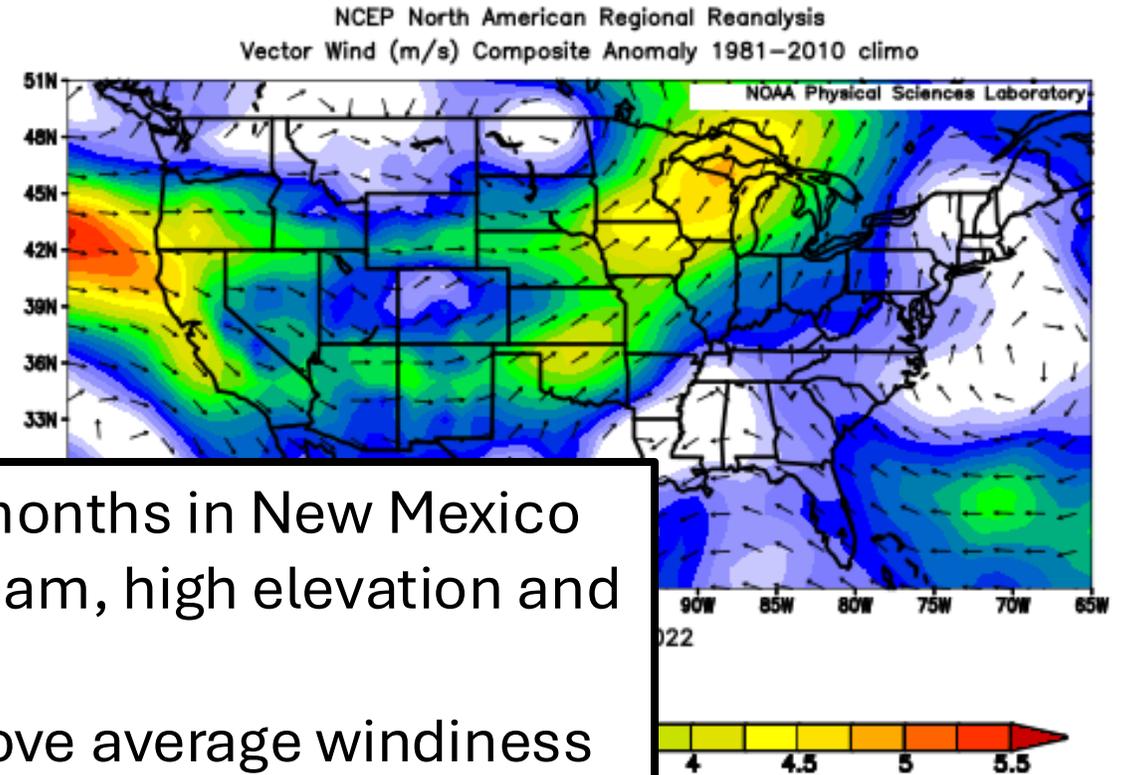


Thoughts on Spring Wind Trends?

April-May Wind Speed Anomaly for 5 Similar Past Years



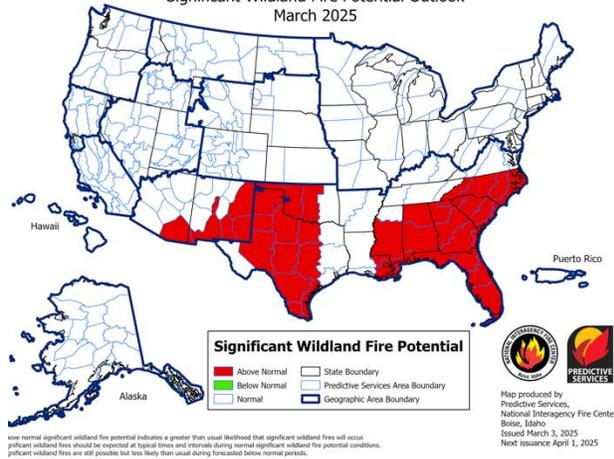
April-May Wind Speed Anomaly for 2022



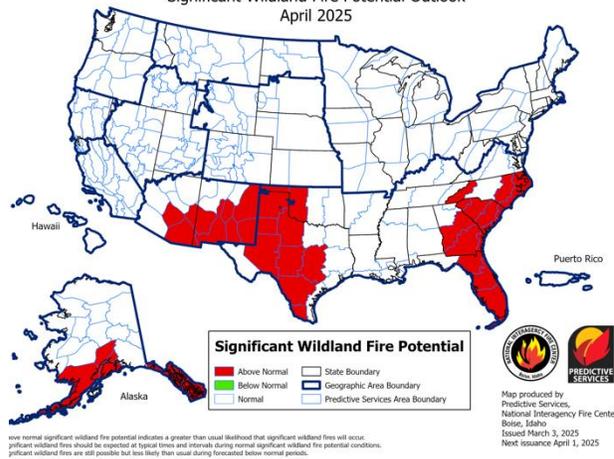
- April & May are the windiest months in New Mexico due to proximity of the jet stream, high elevation and warm days.
- La Nina historically favors above average windiness and more frequent dry/wind events
- Have not looked closely at Neutral periods



Significant Wildland Fire Potential Outlook
March 2025



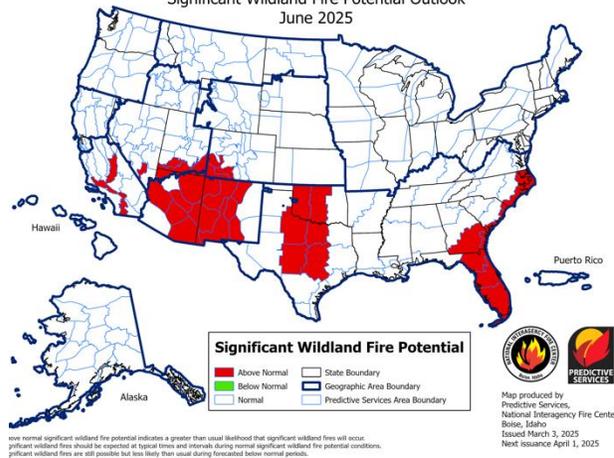
Significant Wildland Fire Potential Outlook
April 2025



Significant Wildland Fire Potential Outlook
May 2025



Significant Wildland Fire Potential Outlook
June 2025

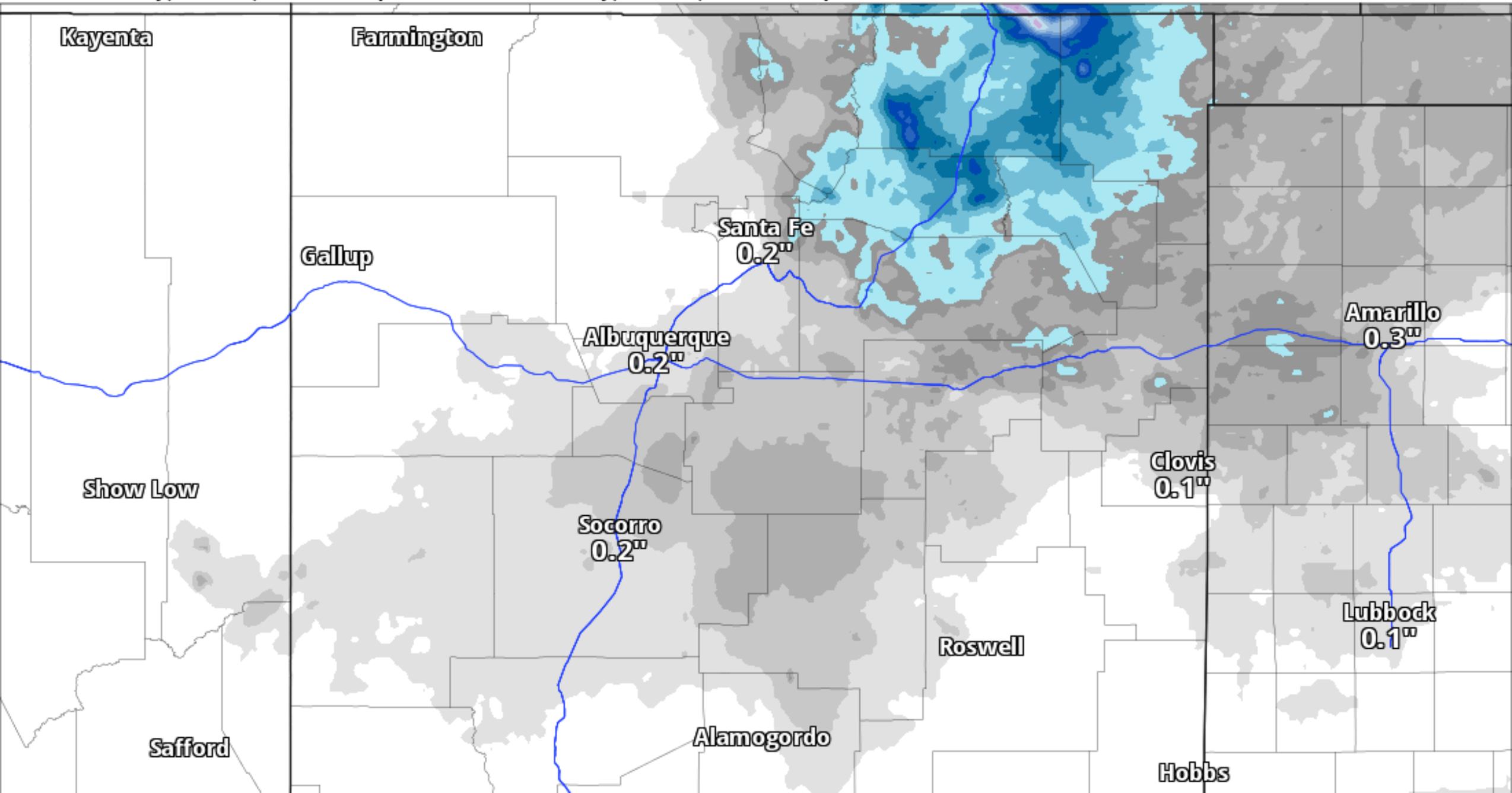


Significant Fire Potential Outlook

Total Snowfall, Model Ratio (in)

Between Friday, Jan. 17, 2025 at 12 p.m. MST and Tuesday, Jan. 21, 2025 at 11 p.m. MST

Init: Fri 2025-01-17 19z NWS Blend of Models



Outlook Summary & Considerations

- Winter-Spring 2024-25 precipitation likely slightly below to below normal with highest confidence in dry signal central-southern NM
- 2024-25 mountain snowpack likely below average (north) to well below average (south). Areas near the NM/CO line extending northward most favored.
- Temperatures, overall, trending above average. Higher likelihood of cold air intrusions eastern NM as compared to previous two seasons.
- Moving into a critically dry early fire season
- Late winter and early spring may benefit from transition back toward ENSO Neutral

