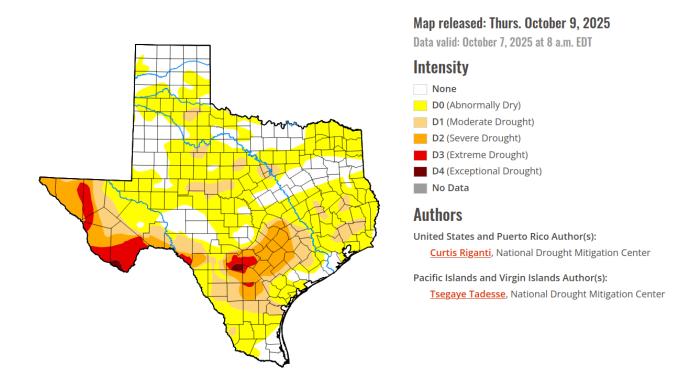
Bi-monthly Educational Topic #19 for CCGCD by Texas Hill Country Weather Services, LLC October 14, 2025

## **Current conditions:**

As of October 9, 2025, approximately 55% of Kendall County is in drought, and drought impacts are increasing once again, unfortunately. The intensity of the drought ranges from D0 (abnormally dry) to D2 (severe drought) across the county. Last week, the NWS's Climate Prediction Center (CPC) officially alerted the public that our El Niño Southern Oscillation (ENSO) pattern has transitioned to a weak La Niña event. This is not good news. A La Niña event generally brings our region drier than average and warmer than average conditions, and we are already receiving such negative impacts as evaporation and evapotranspiration rates are increasing. If there is good news, that news would be that this specific La Niña event is expected to persist only through our coming Winter season and then slowly transition back to the ENSO Neutral pattern next Spring. Along with our dry on-going conditions, the weather pattern has caused tropical systems to deviate away from Texas consistently. Thus, it looks like our chances for receiving beneficial rainfalls from a tropical wave entering the Gulf appears to be diminishing but not completely negligible since the hurricane season officially lasts through the end of November. In the meantime, only expect infrequent rainfall chances through the rest of this Fall season.

Texas Home / Texas



Since drought is intensifying across the Texas Hill Country again, it is a good time to write up some notes on an excellent recently-published research article on drought as acquired from an engineering PhD student located at the University of Tennessee in Knoxville, TN. The article is cited below at the end of this topic.

Drought with a chance of flash floods is the "typical" long-term weather pattern variation we receive across the Texas Hill Country. The I-35 corridor seems to represent a climatological boundary in which areas west of the corridor generally have extended dry periods with infrequent short-term wet events, and those areas to the east of the corridor have decreased extended dry periods and more frequent rainfall events. The Texas Hill Country could be considered a transition region relative to the general weather pattern variations that occur over the long-term period from a west to east directional orientation across Texas.

Maps of climatological average rainfall across Texas don't really show the true story or the true experience for any given year here in the Texas Hill Country. One year can be extremely wet, for half the year, exceeding rainfall historical averages by two standard deviations and then the following consecutive three years, for example, can be continuously dry not reaching historical rainfall averages by at least one standard deviation year upon year. These pattern switches are truly driven by the large-scale impacts of the transitional ENSO events.

But our experience is much more broad than just ENSO, and this is where the referenced research article comes into play and must be discussed if we want to understand what our future could be like here in south-central Texas.

Here is a summary of what the research article brings forward:

- The study simulates through modeling the future how drought could evolve in time across the continuous US.
- Six global climate models were ran out through 2059.
- Analyses of drought patterns used the palmer drought severity index, the standardized precipitation index and the standardized precipitation-evapotranspiration index.
- Urban areas could see an increase in the low-level drought impacts (D0 and D1) and a decrease in the high-level drought impacts (D2, D3 and D4).
- Western and southwestern portions of the US could see persistent and intensifying droughts.

To conclude, increased desertification across the western and southwestern US could slowly shift drier conditions eastward as time goes on. However, the actual conclusion from this research article is "These findings highlight a shift toward more frequent mild droughts, fewer severe droughts, and persistent drying in the Southwest, emphasizing the need for region-specific adaption strategies."

The conclusion is not good news for the Texas Hill Country. There is no easy solution. Conservation is key.

Stay tuned into CCGCD's website page, as TXHCWS will soon be providing more educational materials.

<sup>1</sup>https://iopscience.iop.org/article/10.1088/1748-9326/adf4f9. Zhang, L., Rubin, H. J., Chien, R. Y., Fu, J. S., Rastogi, D., Kao, S. C., & Ashfaq, M. (2025). Projected evolution of droughts and human exposure in the contiguous United States under SSP5-8.5: A regional downscaling perspective. Environmental Research Letters 20(9) 094021. <a href="https://doi.org/10.1088/1748-9326/adf4f9">https://doi.org/10.1088/1748-9326/adf4f9</a>