Educational Topic #1, Q1 2026
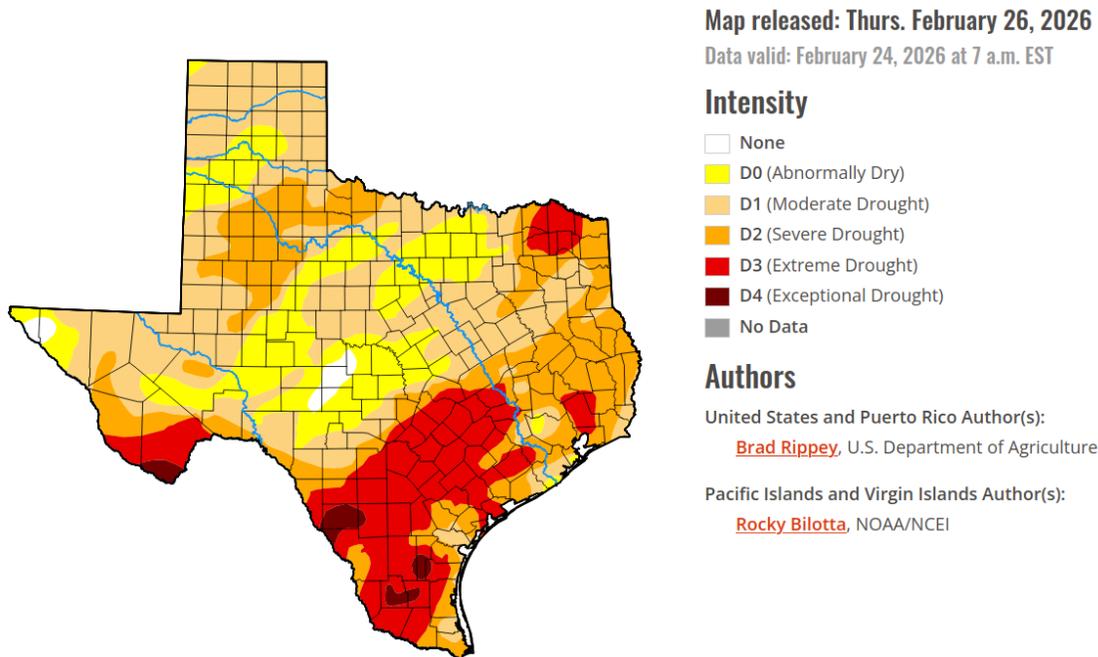Texas Hill Country Weather Services, LLC
March 2, 2026

Current conditions:
As of February 26, 2026, the intensity of the drought ranges from D1 (moderate drought) in the northwestern portion of the county to D2 (severe drought) across the central portion of the county to D3 (extreme drought) across the eastern portion of the county (per the latest available US Drought Monitor map provided below). The drought is expected to continue through the month of March, if not longer.

Texas

Map released: Thurs. February 26, 2026
Data valid: February 24, 2026 at 7 a.m. EST

Intensity
- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

Authors

United States and Puerto Rico Author(s):
   Brad Rippey, U.S. Department of Agriculture

Pacific Islands and Virgin Islands Author(s):
   Rocky Bilotta, NOAA/NCEI

Spring 2026 season weather outlook:
La Niña is diminishing rapidly, and an ENSO Neutral pattern is expected to be in place by the end of April. With the fact historically that our Spring season sees more frequent weather disturbances crossing Kendall County, expect some good rainfall to occur this Spring season, especially in the months of May and June before our regular hot and dry Summer season starts.

There is also a good chance for warmer than average conditions to occur this Spring, which is not unusual for ENSO Neutral.

Will drought go away this Spring? Unlikely. Only in an El Niño pattern could there be a good chance our drought would be replaced by consistent wet conditions. However, a reduction in drought severity is likely for Kendall County. By the end of Spring 2026, if we receive frequent

rainfall events, it is conceivable that the county would only be impacted by D0 (abnormally dry) to D1 (moderate drought) conditions.

Educational Topic #1:

The main task outlined by the District in 2026 is to concentrate on the development of a Kendall County-specific index that gives the District an additional capability to incorporate available scientific data and tools to help them address monthly drought stage decisions.

The index is going to be a mathematical algorithm. The algorithm is envisioned to be something along the line of the new drought stage set equal to the current drought stage plus several other variables. A simplistic version of the algorithm will look something like the following:

$$\text{New stage} = \text{current stage} + \text{or} - \text{multiple variable values} \tag{1}$$

Now the challenge begins to develop the importance, order and strength of each variable as the numeric value for each variable is currently not known.

Last year, within the written educational topics, we looked at several variables that the District considers important for their monthly decisions.

Precipitation is an obvious variable that will likely be included in the index. Another variable to be strongly considered is evapotranspiration.

The national Palmer drought indices may also need to be incorporated.

Large scale climate pattern indicators such as La Niña, ENSO Neutral and El Niño patterns are useful forecast tools for the index.

Well water levels, well production rates, river water flow rate and aquifer recharge are other potential components of the index.

Water Forecast Performance:

At each monthly District meeting, a water forecast for the month ahead is provided and applicable only to Kendall County.

monthly water forecast = precipitation (p) forecast - potential evapotranspiration (ETo) forecast

The CFS model out to 708 hours into the future is used to provide the monthly precipitation (p) forecast value given in units of inches. The weekly Forecast Reference Evapotranspiration (FRET) value given in units of inches from NOAA's National Digital Forecast Database (NDFD) is conservatively multiplied by four which provides the monthly ETo forecast.

If the monthly water forecast is negative, this means there is a possible water deficit expected for the month ahead. If the monthly water forecast is positive, this means there is a possible water exceedance expected for the month ahead.

Over the past six months, each monthly water forecast was a predicted deficit and each month an actual deficit was observed. Therefore, the forecast system has performed effectively, so far. The CFS model and the FRET algorithm give bullish forecast values at 708 hours out in time into the future, but they trended accurately relative to observed measurements in Kendall County.

Over the past six months, the total precipitation forecast amount was 13.7 inches, and the measured (from CoCoRaHS) average-wide county precipitation amount was 6.6 inches.

The total ETo forecast amount was 24.2 inches, and the measured (from the Texas Evapotranspiration Network) ETo amount was 21.8 inches.

Thus,

water forecast (over six months) = 13.7 in – 24.2 in = –10.5 in (forecast deficit)

observed water condition (over six months) = 6.6 in – 21.8 in = -14.1 in (observed deficit)

The observed water condition shows we are dry. Recovery, with a consistent rainfall pattern, is needed. However, our area is dominated by drought with an occasional flash flood event. We live in a land of extremes, and it is difficult for our area to receive regular beneficial rainfall. Conservation of water key. Capturing rainfall is also part of the solution.

Stay tuned into the District's Facebook page and their website for quarterly educational topics.