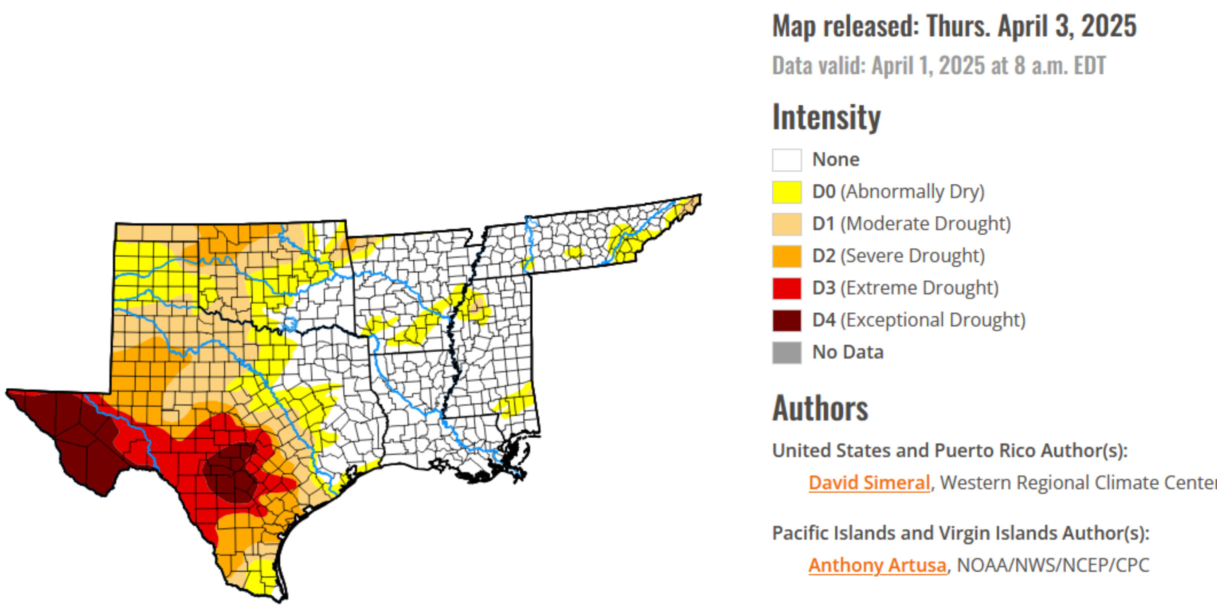
Bi-monthly Educational Topic #7 for CCGCD
by Texas Hill Country Weather Services, LLC
April 4, 2025

**<u>Current conditions:</u>**
As of April 3, 2025, Kendall County remains within the D4 exceptional drought category (per the latest available US Drought Monitor map provided below). CCGCD remains at a Stage 4 drought restriction within this Drought Emergency.



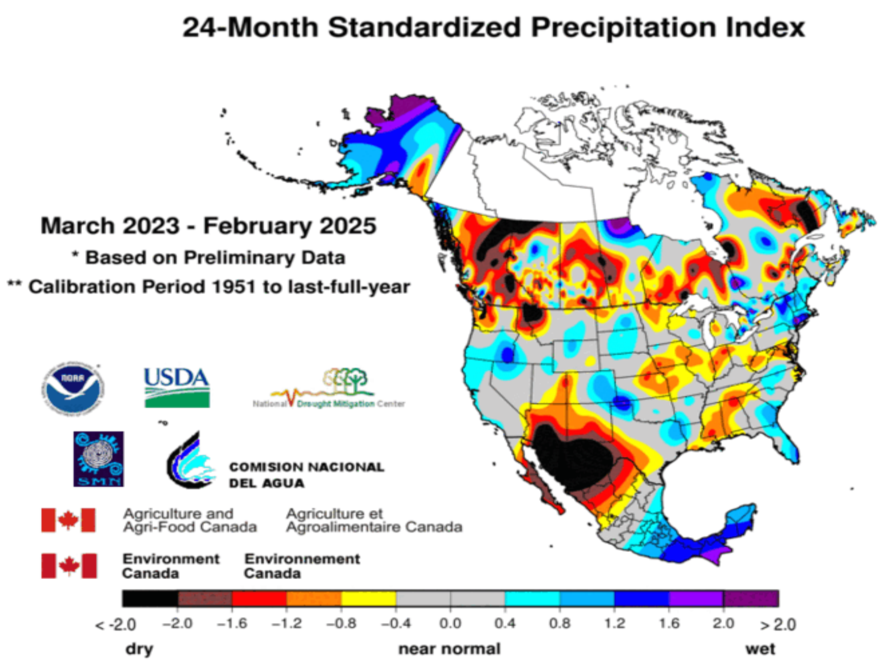

Let’s now turn our attention to yet another drought monitoring index. The Standardized Precipitation Index (SPI). This is a very important index. SPI is such an important index that CCGCD has been using it recently on a monthly basis to help them make its drought restriction stage decisions. In fact, Texas Hill Country Weather Services, LLC (TXHCWS) has partnered with CCGCD to develop its own county-level drought decision index in which SPI is likely going to be a major scientific component of this new tool.

The National Centers for Environmental Information has a good website to get SPI maps and data out to the past 24-months: https://www.ncei.noaa.gov/access/monitoring/nadm/indices/. Funding and support for SPI comes from the following entities:

- National Centers for Environmental Information (NCEI)
- U.S. Department of Agriculture (USDA)
- National Drought Mitigation Center (NDMC)
- Western Regional Climate Center (WRCC)
- Comision Nacional Del Agua
- Agriculture and Agri-Food Canada (AAFC)
- Environment Canada

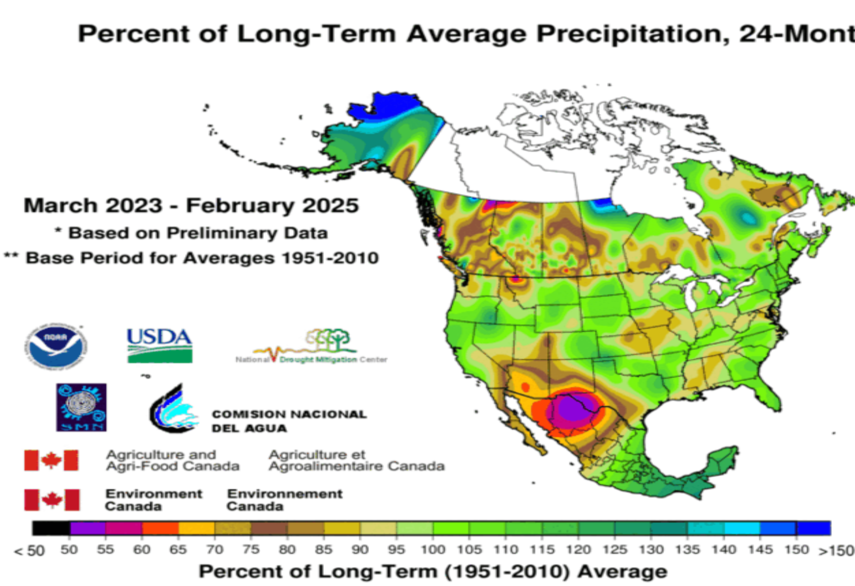
Attached below is a current SPI map for the previous consecutive 24-months. This image is somewhat zoomed out, but for Kendall County, our SPI value is somewhere within the yellow to orange brackets.

## Latest Available North American 24-Month Standardized Precipitation Index Division-Based Contour Map



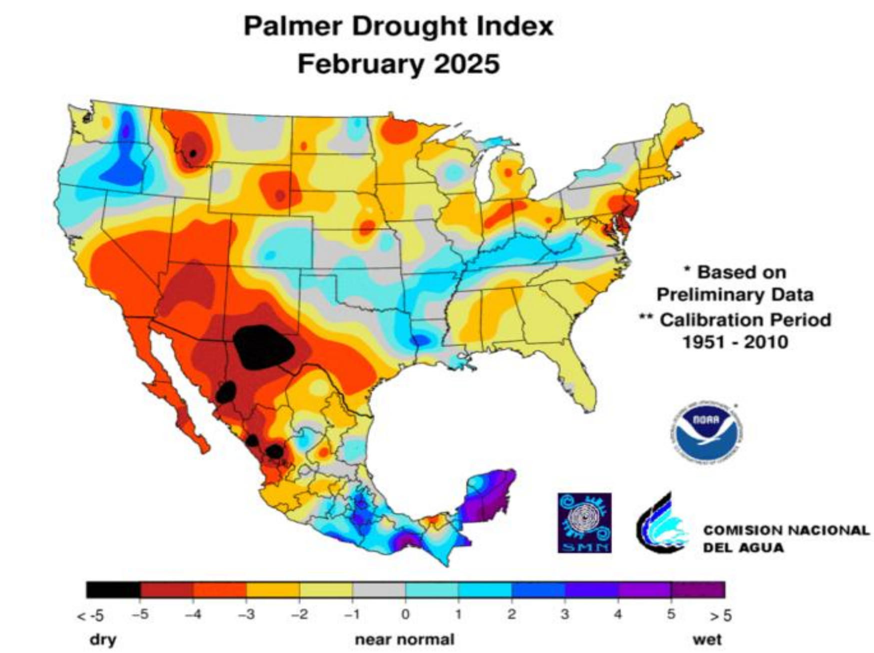

The average precipitation deviation map attached below also from this website can be viewed and used in conjunction with the SPI. Kendall County is close to 80% of its long-term average precipitation for the same period of time as the SPI image above.

## Latest Available North American 24-Month Percent of Long-term Average Precipitation Division-Based Contour Map

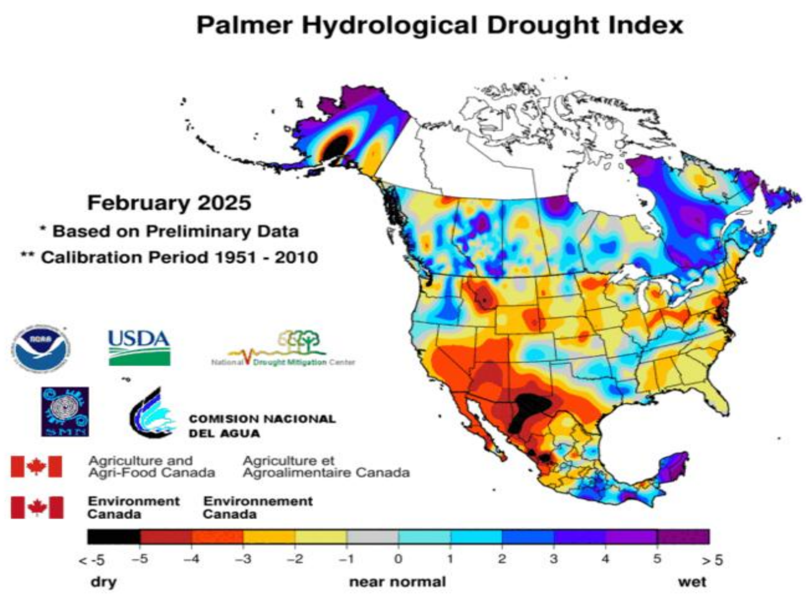


And from the same website, one could also look at the PDI/PHDI map attached below to compare with SPI and the average precipitation deviation maps above. The lightest red color shows dry conditions for Kendall County.

## Latest Available United States and Mexico Palmer Drought Index Division-Based Contour Map



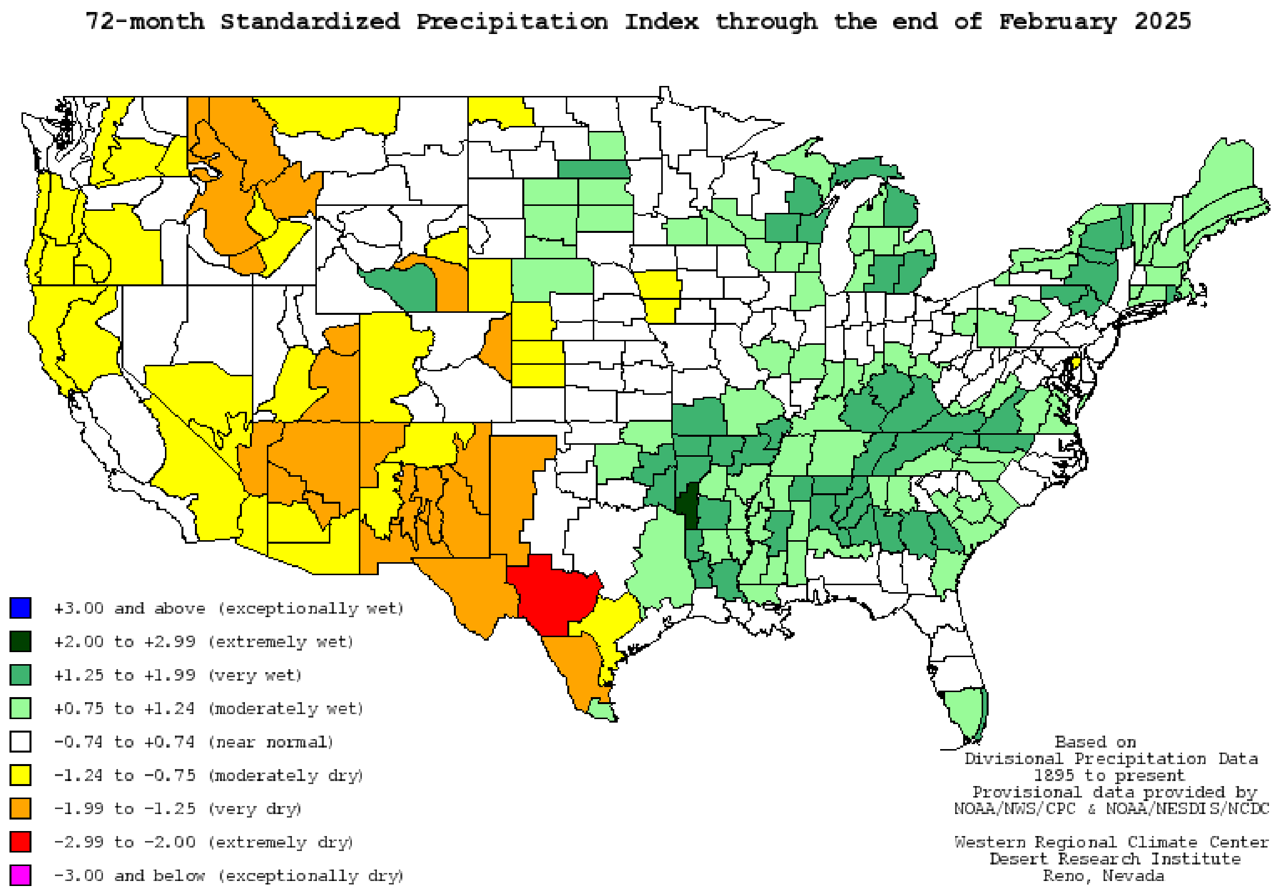

## Latest Available North American Palmer Drought Index Division-Based Contour Map



For locations across the US, the Western Regional Climate Center (WRCC) provides an excellent interactive tool to retrieve the following five precipitation parameters for the previous six-year period to now:

1) Accumulated Precipitation
2) Accumulated Precipitation Departure from Normal
3) Percentage of Average
4) Precipitation Percentile
5) Standardized Precipitation Index (SPI)

This is the website. https://wrcc.dri.edu/Monitoring/spi_products.php




Kendall County is located within the eastern side of the red shaded region on this map above, which indicates SPI values from -2 to -2.99 and is categorized as extremely dry, as of the end of February 2025 and going back six years. The map should be updated to March 2025 fairly soon.

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