



**NEWS**

# Texas Tech gets \$24 million to expand Central Texas weather and flood forecasting

By [Mella McEwen](#), *Oil Editor*



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# WEST TEXAS MESONET 25<sup>years</sup>



West Texas Mesonet.  
Courtesy of Texas Tech University

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Technology deployed in West Texas to monitor wind conditions is being expanded to create a Texas-focused weather forecasting and flood measurement system. The hope is to prevent tragedies like what occurred in Central Texas this summer.



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Texas Tech University has been awarded \$24 million to build on the success of the West Texas Mesonet by implementing a high-resolution weather monitoring and modeling network designed to improve forecasting and flood management across Central Texas. The funding stems from Senate Bill 5, which Gov. Greg Abbott signed into law in September.

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By adding new weather stations, rain gauges and radars, and developing a Texas-focused, high-resolution forecasting system, the project aims to provide faster, more accurate, real-time information that increases warning lead time and supports better decision-making during severe weather events.

Deployed in 2000, the West Texas Mesonet, part of the National Wind Institute at Texas Tech University, has played a vital role in monitoring wind conditions across the state through accurate and frequent measurement of weather-related parameters.

The project will add mesonet stations and automated rain gauges at strategic locations within the Hill Country, install high-resolution radars to fill voids in existing coverage and develop a Texas-focused weather prediction system over a two-year timeline. The team has already completed two mesonet stations in Kerr County this month.

“A lot of that information experts glean from social media, storm chasers or storm spotters,” said Jen Henderson, an assistant professor of geography and the environment at Texas Tech, in a statement. “There’s a bit of a delay. They can usually get data about the kind of hydrology and the meteorology more quickly than they can get the information about the societal impacts.”

Henderson, along with John Schroeder, NWI senior director and professor of atmospheric science; Brian Ancell, professor of atmospheric science; and Brian Hirth, NWI research professor, will serve as lead researchers on the project.

In addition to rainfall measurements, results from a suite of models will help develop a new forecast system. That system also will be able to take data from a storm to model it and predict what will happen six hours into the future.

The results won’t be a cure-all, Schroeder said. The threat of future flooding won’t subside any time soon, but the hope is to provide better warnings and increase average lead time that prompts better communication and an ability for people to take more immediate proactive actions.

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The current West Texas Mesonet network reaches the western edge of the Hill Country, but Schroeder anticipates filling measurement gaps in the area south of Interstate 20, west of Interstate 35 and north of U.S. Highway 90 with more than 40 new weather stations.

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