On October 28, 2009, TX-TF1 was activated by TDEM to prepare for severe weather and heavy rains across central Texas. As a result, the task force mobilized and pre-staged 8 HSARTS and 2 HSART Managers in Austin and San Antonio on October 28, and mobilized and staged 6 Water Rescue Squads in Austin, Dallas/Fort Worth, and San Antonio the following day on October 29. Additionally, 1 ESF-9 Coordinator and 3 ESF-9 Liaison Officers were also activated to support local and state operations throughout the state.

The NWS predicted severe weather and heavy rain activity east of the Interstate 45 corridor from Houston to Dallas, with the storm system moving eastward through the afternoon of October 29. In response to this information, 3 Water Rescue Squads and 4 of the HSARTs supporting 2 helicopters were forward deployed to the City of Lufkin on the afternoon of October 29.

Teams remained deployed until the following day, when the threat of flooding across Texas had subsided, allowing TDEM to demobilize all TX-TF1 resources.