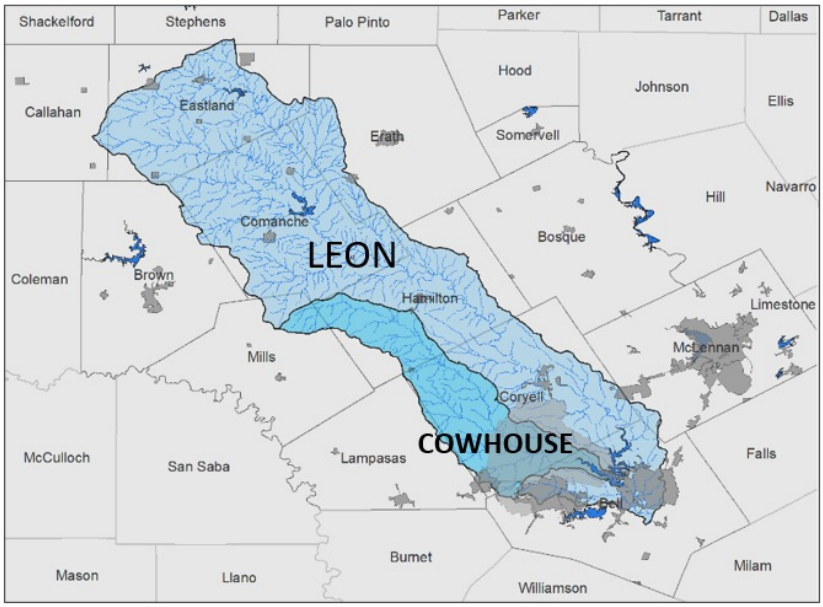
Coryell County Collaborative Flood Study and Emergency Communication System

WATERSHED PROJECT IN CORYELL COUNTY TO USE PREDICTIVE MODELS TO ASSESS FUTURE FLOODS

WHAT WILL THE PROJECT ACCOMPLISH?

An ongoing watershed project, led by Texas A&M AgriLife Research, is working to reduce flood risks for residents in Coryell County and surrounding areas. The project, funded with $4 million in mitigation (CDBG-MIT) funding from the Texas General Land Office, aims to mitigate long-term flood damage and strengthen community resilience associated with flooding in the Leon River and Cowhouse Creek watersheds. The study and modeling is funded by the GLO and is the foundation for a state-of-the-art automatic flood warning system to be funded by the U.S. Army Corps of Engineers (USACE). Hamilton, Eastland, Comanche, and Bell counties have joined the project with Mills County currently seeking funding to join as well.



Funding:

- **$4 million** from the Texas General Land Office for the flood study and modeling
- **$11 million** from USACE, Fort Hood, and Institute for Science and Technology for the automatic flood warning system and infrastructure

Why is the funding going to Coryell County?

In June 2016, **nine Fort Hood soldiers were killed** when their vehicle attempted to cross Owl Creek and was swept away by flash flooding during a training exercise. Flash flood warnings had been issued, and the crossing had been designated off-limits, but the soldiers were not informed. Fort Hood conducted a similar study and implemented sirens on base to prevent future loss of life from flash flooding. The Coryell County project builds on the Fort Hood model and expands it to cover two regional watersheds prone to flooding. In 2024, three (3) people were killed in flash flooding in Coryell County. Over a 20-year period, there was an average of 1.8 flood deaths a year.

STUDY TIMELINE

Study Began:
December 2024
Expected Completion:
November 2027

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Why do you need to do a study to put out sirens/sensors?

GLO's funding will provide the flood and groundwater modeling necessary to recommend mitigation projects and locations, including the best sensor locations to ensure the effectiveness of the future alert system.

The project includes **three major components**:

- Develop surface and groundwater flow models for flood and water supply evaluations.
- Assess, develop and implement flood mitigation strategies.
- Evaluate and propose flood-related policy improvements.

The study uses the same data and protocols used in the GLO's River Basin Flood Studies (RBFS) to enable seamless integration across the regions.

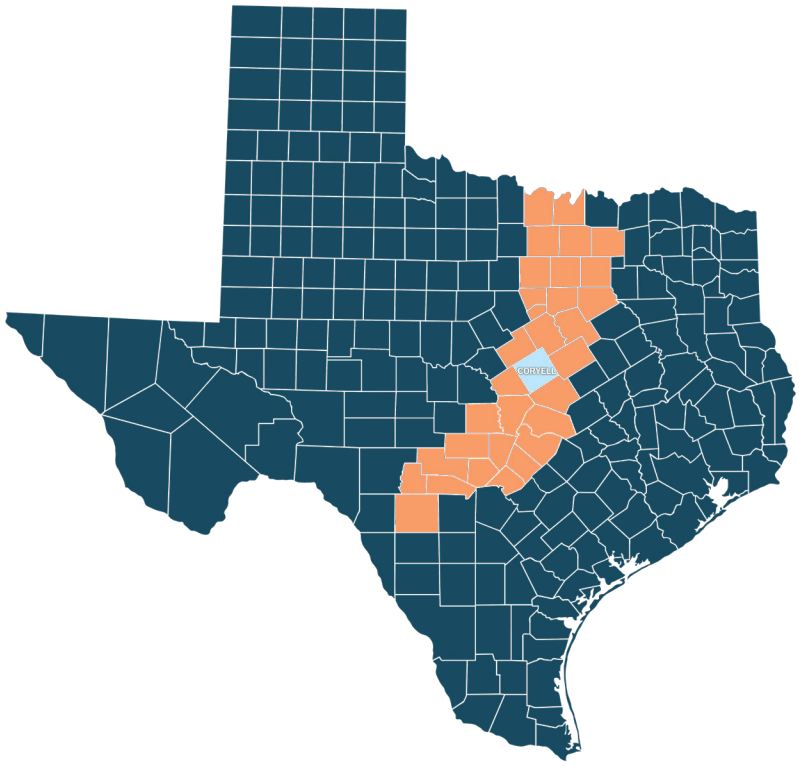
Benefits of the Leon River and Cowhouse Creek Watersheds Project

- This system is replicable to other areas and river basins not included in RBFS.
- Artificial Intelligence (AI) driven real time and predictive flood model ties into the police dispatcher system. Warnings are automatic (phone alerts) and dispatcher driven (alarms, dispatching first responders, road closures).
- Ties into existing Fort Hood System for continuous coverage.
- The system is being built concurrently while the study is being conducted.
- Approximately $15M, including modeling, to replicate this system in a similarly sized area.

Operational Results

The public warning web page is at initial operational capability on the public Coryell County Fires and Floods Map, which is integrated into the local law enforcement and emergency management systems. Hamilton, Comanche, and Bell counties will soon be operational as well. Flooding will be visible once the models are complete.

TEXAS FLASH FLOOD ALLEY



Coryell County Fires and Floods Map