

# Making a Difference

## 2016 Wharton County Flood Response by Texas A&M AgriLife Extension

### Developed by:

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### Relevance

On the weekend of April 16th, a large amount of rainfall fell in several counties to our north, upstream along the Colorado River and San Bernard River watersheds. A few of those counties to mention are Fayette, Bastrop, and Austin Counties. Fayette and Bastrop counties fall in the Colorado River watershed and parts of Austin County fall in the the San Bernard River watershed. LaGrange, Texas saw a foot of water overnight on April 17th. By Monday, April 18th Wharton County was preparing for flooding along both the Colorado and San Bernard Rivers that flow through Wharton County. With the extreme amount of rainfall that fell to our north it was very difficult to forecast the river flood levels. All week the river levels exceeded forecasted levels. At one point the Colorado River was forecasted to crest at 47.3 feet on April 20th, but by April 22nd the Colorado River crested at 48.38 feet. The San Bernard River at East Bernard, Texas reached a record-breaking crest at 28.45 ft on April 20<sup>th</sup>.

The cities of East Bernard and Wharton experienced city flooding during the week of April 18<sup>th</sup>. There were extensive losses along the Colorado and San Bernard rivers to grain and cotton fields. Some crop fields had been under water in places for four to six days. USDA confirmed approximately 140 head off cattle lost on the Colorado and San Bernard Rivers in Wharton County, combined.

Floodwater can be contaminated by substances from upstream, such as manure, sewage from flooded septic systems or wastewater treatment plants. A septic system near a well also can cause contamination when the soil is flooded. To ensure that well water is safe after a flood, homeowners are advised to disinfect wells that were submerged during recent floods, and then have the water tested to make sure that the pathogens (disease-causing organisms) have been eliminated.

### Response

Under action of the Wharton County Animal Issues Committee approximately (17) seventeen dogs were sheltered at the Wharton County Fairgrounds until Saturday morning, April 23rd, as the Annual County Fair began later that day. Rachel Berry, our Wharton County 4-H Agent assisted ten (10) 4-H youth with the transportation and relocation of fair animal projects out of the Colorado and San Bernard flood plain in Wharton County a week prior to the County Fair. These were fair project animals on feed just five days or so before the Fair!

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*The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating*

Mr. Billy Schwertner, owner of Wharton Livestock Auction Barn provided his auction barn a large animal shelter for horse and cattle owners needing a place to relocate their animals out of potentially flooded areas. 3 horses and 15 head of cattle were temporarily sheltered at the Wharton Auction Barn

The Colorado River reached major flood stage again on May 31, 2016 at 46.85 feet, flooding many of the corn acres that were flooded in April, and replanted to grain sorghum or cotton in May. This flood event did not cause flooding in Wharton that was experienced in April. The Wharton County Animals issues committee did not activate, although cattle producers were alerted to the need to relocate any animals in low lying areas along the Colorado River.

The Texas A&M AgriLife Extension – Wharton County Office held a Decontaminating Flooded Water Wells Program on Thursday, May 19, 2016 at the East Bernard, Texas Library to educate residents how to decontaminate water wells that were flooded in the late April floods and how to test drinking water for fecal coliform bacteria. Water sample bottles and submittal forms for health department water labs in our area were made available to participants.

## Results

To determine the programmatic results of the Decontaminating Flooded Water Wells Program, a retrospective post evaluation instrument was administered the day of the program. 5 of 5 (100%) completed evaluations. 4 of 5 (80%) of the participants estimate an economic benefit from knowledge gained by attending the Decontaminating Flooded Water Wells Program. Participants indicated that the economic benefit is attributed to avoiding new costs, and impact on their personal health and hygiene.

### Client Change Level of Understanding: May 19, 2016, Decontaminating Flooded Water Wells Program

TOPICS	Mean Value BEFORE	Mean Value AFTER	Percent Increase
Understanding of why we would disinfect after a flood event	2.60	4.00	53.8%
Understanding of the step-by-step process of disinfecting a water well	1.8	3.60	100.0%
Knowledge of the health department water labs in the area that test for fecal coliform bacteria	1.6	4.00	150.0%
Understanding that sampling methods are critical to taking a water sample for fecal coliform testing	1.6	4.00	150.0%