Sponsor: City of White Settlement
Farmers Branch Creek
flood control

Type of Project: Section 205, Local Flood Damage Reduction
Authorization: Flood Control Act of 1948, as amended
Status: $11.5 million construction completed in 2014.

Background: The project is within the city of White Settlement near Fort Worth, Texas, along Farmers Branch Creek. The area had been prone to increasingly frequent floods from upstream watershed developments and the narrow drainage downstream that caused backups. Significant floods occurred in September 1984, May 1989, June 2000 and June 2004. The city offices, which front the creek, would flood. The 2000 flood resulted in 136 homes and 17 businesses receiving some flood damage totaling more than $2 million.

The project: Widening the creek with a grass- and rock-lined channel between White Settlement Road and Meadow Park Road greatly expanded valley storage and flow. The Meadow Park vehicular bridge was reconstructed. Most of the channel was widened with a trapezoidal grass-lined channel with 3:1 side slopes. Storm drain improvements included construction of curb and “Y” inlets, storm drain lines and sloped headwalls discharging into the channel. Twenty-six houses were purchased and demolished, residents were relocated. The sanitary sewer interceptor that ran the length of the channel was been moved, which enabled the flowline of the channel to be lowered. The project removed 60 percent of the residents from the 100-year floodplain. It decreased the risk for loss of life and increased safety during 5-year to 100-year flood events. The project successfully worked as designed to handle flood events generated by record rainfall in May 2015 followed by heavy rains the following month.