



Texas Commission on Environmental Quality  
**Nonpoint Source Program**

*Urban Riparian and Stream Restoration Training Program  
and Demonstration Project*

**Location:** Statewide

### Background

The Texas Integrated Report evaluates if water bodies meet various water quality standards associated with the water body's designated use. The term "impairment" refers to an instance where a water body does not meet the standard for a parameter associated with one of its uses. The 2016 Integrated Report includes 574 impairments with elevated bacteria accounting for over 39 percent of all impairments, followed by low dissolved oxygen at 17 percent. Degraded habitat is also impacting aquatic and wildlife communities. One of the best solutions to these major statewide issues is to restore healthy riparian areas by changing practices, revegetating, and/or stabilizing the channel.

### Project Descriptions

Texas Water Resources Institute (TWRI) coordinates the Urban Riparian and Stream Restoration training program with the goal of equipping participants with the ability to assess the functional status of streams and their riparian areas, and the impact of urban development on streams. Trainings are held in and around large urban centers such as Dallas, Ft. Worth, Houston, Austin, and San Antonio on a regular basis and target surrounding watersheds with accepted watershed protection plans. The target audience for this program is engineering professionals, government employees, and water quality professionals.

TWRI is also implementing a stream restoration demonstration at the Irma Lewis Seguin Outdoor Learning Center in Seguin. They have revegetated moderate to highly erodible sections of the Geronimo creek bank to reduce erosion and sediment and other pollutant loadings to the creek. TWRI will document changes in the physical and chemical characteristics of the stream for the period prior to stream bank revegetation, during revegetation activities, and up to two years after revegetation.

Prior to restoration, TWRI conducted water quality monitoring to establish baseline data. They will use automatic water samplers to monitor water quality upstream of, within, and downstream of the restoration site to evaluate the effectiveness of stream restoration in reducing pollutant loadings. They will also take physical measurements to assess changes in the stream bank recession rate, bedload and suspended sediments rate in the stream, and bank erosion hazard index as a result of revegetation.



### For More Information

#### Project Website

[Urban Riparian Stream Restoration Program](#)

#### TCEQ NPS Program

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