Texas Water Resources Institute

Helping Texans make every drop count since 1952

RESTORING & PROTECTING

Our Water Quality Improvement Program works with local stakeholders to restore impaired water bodies and proactively protect unimpaired watersheds across Texas.

Texas is home to 23 river basins, 200 major reservoirs and more than 191,000 miles of rivers and streams. Approximately 440 of these water bodies do not meet water quality standards established by the state. Restoring and protecting these waters is critical to support economic growth, ecological sustainability, public health and food production across the state. Improving and sustaining healthy water bodies requires effective planning backed by sound science and public participation.

The Texas Water Resources Institute (TWRI) is uniquely suited to address these water quality challenges. Our Water Quality Improvement Program works to restore impaired water bodies and proactively protect unimpaired watersheds across Texas.

Partnering with the Texas A&M AgriLife Extension Service, we work with stakeholders to identify, develop and implement effective watershed-based management strategies to address local water quality concerns.

We also collaborate with scientists and experts from Texas A&M AgriLife Research and other universities and organizations to assist communities with water quality monitoring and assessment, bacterial source tracking and evaluation of innovative best management practices.

With more than three decades of combined watershed-based planning experience, our water team is a statewide leader in coordinating and implementing watershed-based programs.



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THE WATER INSTITUTE FOR TEXAS

Established in 1952, TWRI was designated as the state's official water resources institute in 1964 by the Texas Legislature and Texas Governor as a result of the Water Resources Research Act. Today, we are one of 54 institutes in the National Institutes for Water Resources, supported by the U.S. Geological Survey.

MONITORING & ASSESSING WATER QUALITY

Effective monitoring and assessing of watersheds provides communities and organizations with the data needed to identify and better understand potential causes and sources of local water quality impairments. Our highly trained water team collects water quality data, conducts watershed surveys to identify pollutant sources, and analyzes and interprets the information to provide sound science to support watershed restoration work.

Developing a better understanding of a pollutant's fate, transport and management is essential to the process of restoring a water body. Our work addresses this need through demonstration projects that evaluate the efficiency of management practices and provide hands-on teaching to stakeholders. Specifically, bacteria fate and transport research has advanced the understanding of bacteria's life cycle in soil and aquatic environments and greatly enhanced the accuracy of planning efforts to manage these pollutants in a variety of watershed types. Our Bacterial Source Tracking Program provides further information by characterizing fecal pollution sources in watersheds, allowing better targeting of water quality improvement efforts.

WATERSHED PLANNING & IMPLEMENTATION

As a leader in restoring watersheds, TWRI engages with local stakeholders to improve water quality in Texas watersheds through watershed-based plan development and implementation assistance. We have the experience, organizational skills and knowledge to efficiently guide stakeholders in developing sciencebased and stakeholder-supported plans necessary for restoring local water bodies.

For example, we have worked with stakeholders and state and regional agencies in several watersheds within the Matagorda Bay watershed along the Texas Gulf Coast to develop watershedbased plans to address bacterial impairments.



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The Texas Water Resources Institute fosters and communicates research and educational outreach programs focused on water resources science and management issues in Texas and beyond.

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