

Protecting the State's WATERSHEDS

Challenges

- High-nutrient, bacterial and salinity levels — along with low dissolved-oxygen levels — in some Texas watersheds have raised concerns among residents and state officials about public health, water quality, water-use limitations, aquatic habitats and reduced or lost recreational opportunities.
- Potential sources of this pollution include natural sources, feral hogs, wastewater treatment systems, livestock and pet waste, and fertilizer and chemical runoff from croplands, pastures, lawns, landscapes, parks and industrial sites.



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AgriLife Extension Response

Through 49 educational events, watershed planning meetings and workshops in 2021, AgriLife Extension and collaborating agencies engaged more than **1,400 educational contacts** (landowners and stakeholders) in an effort to improve public awareness and participation vital to developing and implementing watershed protection plans.

The process of improving water quality and protecting a watershed's natural resources typically involves forming a local stakeholder partnership group, identifying the causes of watershed pollution and developing a comprehensive management plan. Education and the adoption of best management practices are critical to implementing these efforts.

- The Healthy Lawns Healthy Waters, Lone Star Healthy Streams, Texas Watershed Steward, and Texas Well Owners Network programs play an integral role in supporting watershed protection efforts.
- AgriLife Extension currently coordinates planning and education efforts in the following watersheds: Attoyac Bayou, Cibolo Creek, Mission River, Aransas River, Matagorda Basin, Tres Palacios Creek, Little River, Big Elm Creek, Navasota River, Arroyo- Colorado River, Angelina River, La Nana Bayou, Lower Neches Basin, Middle Yegua Creek, Davidson Creek, Deer Creek, Thompsons Creek, Middle Neches Tributaries, Mill Creek, Geronimo and Alligator Creeks, Ayish Bayou, Pond Creek, and Medina River.

Economic Impacts

The ultimate societal benefit is improved water quality, reduced water treatment costs and protecting public health and the environment.

- While efforts to protect watersheds and restore water quality are in various stages, significant progress is being made. The Plum Creek, Attoyac Bayou, Buck Creek watersheds and portions of the Navasota River watershed have been removed from EPA's list of impaired water bodies.
- Outreach efforts continue to support the identification of sources of contamination, educational programs, and critical water quality protection activities with economic benefits of more than **\$1.4 million** in 2021. Planning efforts facilitate on-the-ground action to protect and improve water quality.
- On-going activities include septic system repairs and/or replacement for low-income households, implementation of agricultural and silvicultural conservation and resource management practices, and installation of stormwater management structures, educational signage in select areas and pet waste stations.