

Environmental Concerns

- 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.

AgriLife Extension's Response

The Texas A&M AgriLife Extension Service has collaborated with many local, state, and federal agencies and organizations to inform and educate residents about water quality concerns in several Texas watersheds.

- AgriLife Extension currently coordinates planning and education efforts in the following watersheds: Attoyac Bayou, Copano Bay, Cibolo Creek, Mission River, Aransas River, Matagorda Basin, Lavaca River, Tres Palacios Creek, Arenosa Creek, Carancahua Bay, Little River, San Gabriel River, Big Elm Creek, Navasota River, Arroyo-Colorado River, Brownsville Resaca, Mill Creek, and Geronimo and Alligator Creeks.
- 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.
- To support the need for stakeholder involvement, the Texas Watershed Steward Program was initiated to provide science-based, watershed education to help citizens identify and

take action to address local water quality impairments.

- Through more than 95 educational events, watershed planning meetings, and workshops in 2017, AgriLife Extension and collaborating agencies engaged more than 3,100 landowners and other stakeholders in an effort to improve public awareness and participation vital to developing and implementing watershed protection plans.

Economic and Environmental Impacts

The following highlights demonstrate recent accomplishments made toward restoring water quality through selected watershed protection and education programs:

- While efforts to protect watersheds and restore water quality are in various stages, significant progress is being made. In 2011, the Plum Creek Watershed became the first watershed to be removed from EPA's list of impaired water bodies. Water quality has also been restored in the Buck Creek Watershed.
- To leverage state resources, \$9.8 million in externally funded grants over five years has been obtained to support critical water quality protection activities, identify sources of watershed contamination, and support educational programs.
- The ultimate societal benefit to Texas is improved water quality, reduced water treatment costs, and protecting public health and the environment.