

## Water Quality Concerns

- Elevated nitrogen and bacteria levels in the Geronimo and Alligator Creeks watershed flow directly into the Guadalupe River. This raises concerns about water quality, public health, aquatic habitats, and reduced or lost recreational opportunities.
- Potential sources of water pollution include urban stormwater runoff, livestock and pet waste, failing septic systems, feral hogs, wildlife, and runoff from croplands, pastures, and lawns.

## AgriLife Extension's Response

- The Texas A&M AgriLife Extension Service collaborated with the Guadalupe-Blanco River Authority and the Texas State Soil and Water Conservation Board in 2009 to inform and educate local citizens about water quality concerns in the watershed.
- AgriLife Extension led the formation of the Geronimo and Alligator Creeks Watershed Partnership, which comprises local stakeholders working together with state and federal agencies toward the shared goal of restoring water quality and protecting water resources in the watershed.
- AgriLife Extension guided the partnership through the development of the Geronimo and Alligator Creeks Watershed Protection Plan, a comprehensive management plan that identifies potential sources of water pollution and management measures needed to restore and protect water quality.
- 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 27 meetings and workshops, AgriLife Extension engaged 1,194 citizens and landowners (for a total of 2,213 contact hours) to improve public awareness and participation, which is vital to developing and implementing the watershed protection plan. The project website has logged 76,989 visits since it went online in late 2009.

## Economic and Environmental Impacts

- The Geronimo and Alligator Creeks Watershed Protection Plan was formally accepted by the Environmental Protection Agency in September 2012. It was only the third plan in Texas to meet all federal requirements.
- As a result of this designation, externally funded grants totaling \$1.68 million over three years were obtained to implement critical water-quality protection activities identified in the Geronimo and Alligator Creeks Watershed plan.
- In 2015, the grant funds included more than \$580,000 for education and training programs and an additional \$140,000 directed to homeowners to implement a centralized sewer collection system.
- These grant-financed projects for improving and protecting the watershed support an additional 17 jobs annually in the region.
- Through these efforts, water quality in Geronimo and Alligator Creeks and the Guadalupe River will be improved and protected for the beneficial use of future generations.