



Agricultural Nonpoint Source Pollution in the Arroyo Colorado Watershed

Agriculture in the Arroyo Colorado Watershed

The Arroyo Colorado Watershed, a 706-square-mile area, runs from McAllen to the Lower Laguna Madre and is impaired for dissolved oxygen, bacteria and legacy pollutants. In 2007, local stakeholders developed and published “A Watershed Protection Plan for the Arroyo Colorado Phase I,” which identifies strategies to address water quality issues. Those strategies are currently being implemented throughout the watershed.

Agricultural production comprises approximately 314,000 acres within the Arroyo Colorado Watershed. Agricultural irrigation and rainfall runoff, commonly referred as agricultural nonpoint source pollution (NPS), contains sediment, nutrients, crop organic residue and other foreign materials. Agricultural runoff drains into a series of drainage canals that ultimately lead to the Arroyo Colorado, which eventually empties into the Lower Laguna Madre. Agricultural NPS pollution contributes to the impairment of certain segments of the Arroyo Colorado. Farmers are implementing best management practices (BMPs), which have proven to improve soil health and drainage water quality, thereby reducing the negative impact of agricultural runoff into the Arroyo Colorado.

Nonpoint Source Pollution Mitigation Opportunities

Several federal and state agencies offer financial incentive programs for agricultural producers, which assist producers in implementing and constructing these practices and structures that improve not only the cropland and crop yield potential, but also drainage water quality. Many of these agencies also provide technical assistance needed to make the proper decisions about the combination of conservation practices to be implemented on the land based on its use.

Many BMPs, such as land leveling, soil fertility testing, nutrient management, improved irrigation management, and others listed in the Field Office Technical Guide (FOTG), are used by producers to mitigate possible pollution impacts in the Arroyo Colorado. Produced by the USDA Natural Resources Conservation Service, the FOTG contains technical information about conservation as it relates to soil and water, and it serves as a scientific reference in the adoption of BMPs for the local area.

Detailed information about agricultural nonpoint source pollution in the Arroyo Colorado Watershed and other programs and projects can be found by visiting the following partner websites.

Collaborators

- Arroyo Colorado Watershed Partnership
arroyocolorado.org
- Texas AgriLife Extension Service
agriflifeextension.tamu.edu
- Texas AgriLife Research
agrifliferesearch.tamu.edu
- Texas Water Resources Institute
twri.tamu.edu

Project Funding Agencies

- Texas State Soil and Water Conservation Board
tsswcb.texas.gov
- Texas Commission on Environmental Quality
tceq.state.tx.us
- U.S. Environmental Protection Agency
epa.gov

