



Elm and Sandies Creeks TMDL Implementation Strategy

Texas State Soil and Water
Conservation Board

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Cuero, TX



What is the TSSWCB?

- Since 1939, the TSSWCB has administered Texas' soil and water conservation law and coordinated conservation and pollution abatement programs throughout Texas
- Led by the seven member State Board, the agency's staff, less than 60 statewide, promotes the wise use of Texas' renewable natural resources and provides for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of 217 local soil and water conservation districts (SWCDs)



Agency Program Areas

1. Soil and Water Conservation District Assistance
 - Technical Assistance Grants
 - Matching Funds
 - Field Representatives
2. Water Supply Enhancement
 - Water Conservation Planning
 - Water Conservation Grants
 - Brush Control Program
3. Nonpoint Source Pollution Abatement
 - Water Quality Management Plan Program
 - Poultry Initiative
 - TMDL Program
 - Clean Water Act §319(h) Grants
 - Coastal Zone Management



Legislative Mandate to Protect Water Quality

- Codified in Texas Agriculture Code §201.026
- TSSWCB is the lead agency in Texas responsible for planning, implementing and managing programs and practices for abating agricultural and silvicultural nonpoint source pollution
- Shared water quality responsibility with the Texas Commission on Environmental Quality



TMDL Implementation Strategy

- Proactively address the agricultural sources of bacteria through voluntary implementation of best management practices (BMPs) by private landowners to bring the impaired Elm and Sandies Creeks watersheds back into compliance with Texas Surface Water Quality Standards



Peach Creek Project

- While this Elm and Sandies Creeks TMDL is still in development, we can look forward to implementation using Peach Creek as a roadmap or model
- The watersheds are similar in many respects, including impairment and probable sources of bacteria.
- In Peach Creek the primary contributors of bacteria were identified as grazing cattle, domestic sewage, and chickens



Implementation Through Partnerships

- Texas Cooperative Extension
 - Education for landowners on the water quality concerns in the watershed and what measures they can implement to reduce bacterial runoff
- Gonzales County Soil and Water Conservation District
 - Technical assistance in developing Water Quality Management Plans implementing BMPs that reduce the amount of bacteria entering the creeks
 - Financial assistance through a traditional cost-share program to private landowners implementing the WQMPs and BMPs



WQMPs

- Traditional, voluntary-based incentive program
- Site-specific plan developed through and approved by SWCDs for agricultural or silvicultural lands
- Purpose is to achieve a level of pollution prevention or abatement consistent with state water quality standards
- Includes appropriate and essential land treatment practices, production practices, management measures, technologies, or combinations thereof applicable to the planned land use
- Best available management and technology as described in NRCS Field Office Technical Guide
- Cost share component designed to aid producers in implementing BMPs



Phased Implementation

- Assist producers over time based on geographic distribution of operations relative to Elm and Sandies Creeks
- Main stem → perennial tributaries → intermittent tributaries → watershed



Cattle BMPs

- Prescribed Grazing (528)
 - Managing the controlled harvest of vegetation with grazing animals
 - Fence (382)
- Alternative Water Sources
 - Pond (378), Water Well (642), Pipeline (516), Watering Facility (614)
 - Provide grazing animals access to water to protect and enhance vegetative cover through proper distribution of grazing and to protect streams from contamination
- Riparian Forest Buffer (391)
 - Area of trees and shrubs adjacent to streams
 - Intercept sediment, nutrients, pesticides and other pollutants in surface runoff
 - Food, cover and connectivity for wildlife
 - Increase resistance of banks to erosion from stream flow and surface runoff



Poultry BMPs

- Waste Utilization (633)
 - Application of agricultural waste (poultry litter) on the land in an environmentally acceptable manner while maintaining or improving natural resources to aid in meeting crop nutrient demand
 - Annual soil and litter tests
- Filter Strip (393) and Field Border (386)
 - Strips of permanent vegetation established near streams (393) or the perimeter of a field (386) established to remove sediment, organic material and other pollutants from runoff
- Riparian Forest Buffer (391)
 - Area of trees and shrubs adjacent to streams
 - Intercept sediment, nutrients, pesticides and other pollutants in surface runoff
 - Food, cover and connectivity for wildlife
 - Increase resistance of banks to erosion from stream flow and surface runoff



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