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Overview

National Water Quality Initiative (NWQI)

Leon River 2017

Brazos River Basin CRP Steering Committee Meeting
Waco, Texas
April 2017



Background of the NWQI

- **The National Water Quality Initiative (NWQI) was launched in 2012 by USDA’s Natural Resources Conservation Service (NRCS) in collaboration with the Environmental Protection Agency and state water quality agencies.**

- **The NWQI is utilized to accelerate the implementation of conservation practices in a concentrated area in an effort to improve water quality while maintaining agricultural productivity.**



How Does NWQI Work?



- **NRCS works closely with conservation partners to select priority watersheds where on-farm conservation investments will deliver the greatest water quality improvements.**

- **NWQI is designed to help individual agricultural producers take actions to reduce the loss of sediment, nutrients and pathogens into waterways where water quality is a critical concern.**





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Helping People Help the Land

- **NRCS will work with landowners to develop conservation plans implementing practices such as nutrient management, cover crops, conservation cropping systems, filter strips, terraces and buffers.**
- **The Environmental Quality Incentives Program (EQIP) funds this assistance, and in some cases, is leveraged by funds from local and state partners.**



What are the Benefits of NWQI

Water quality-related conservation practices enhance agricultural profitability through reduced input and enhanced soil health, which results in

- **Higher soil organic matter**
- **Increased infiltration**
- **Increased water-holding capacity**
- **Improved nutrient cycling.**





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What are the Benefits of NWQI

Well-managed farms and ranches limit pollution from runoff, produce food and fiber, sustain rural economies and provide food security to the nation.

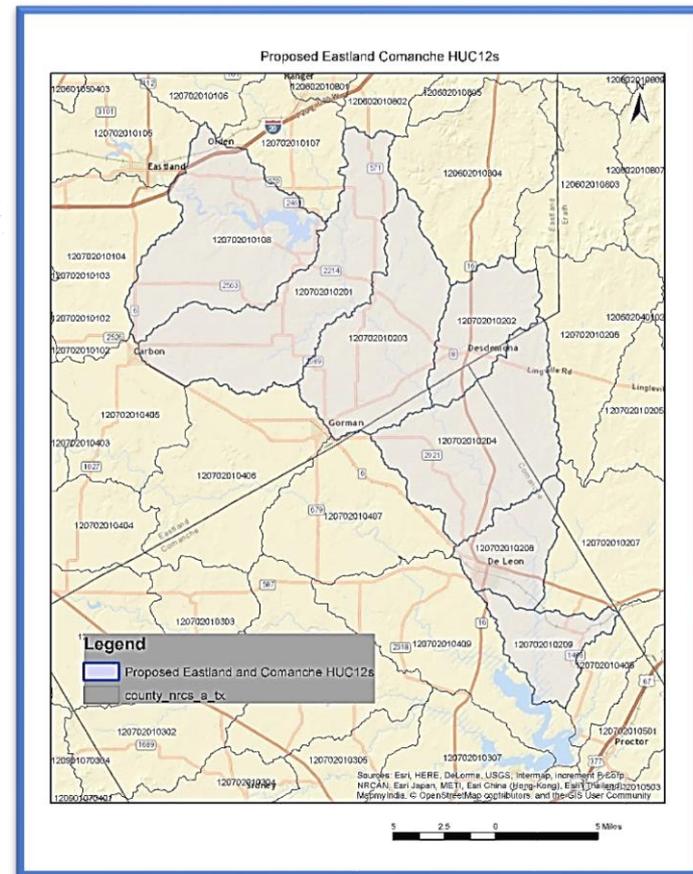


Communities benefit by having clean waterways, safer drinking water and healthy habitat for fish and wildlife.



Leon River NWQI Watersheds

- NRCS in Texas is committed to improving impaired waterways in seven Central Texas sub-watersheds, which are located in the Leon River Watershed above Lake Proctor.
- Sub-watersheds are located in Eastland, Comanche and Erath Counties.
- These sub-watersheds were selected because of low dissolved oxygen levels as well as bacterial loading.





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Conservation Practices and Funding

NRCS conservation professionals will provide technical assistance and planning tools to determine which conservation actions will provide the best results to improve water quality on your land.





Conservation Practices and “ACT” Avoid, Control and Trap

- The NWQI emphasizes a “systems approach” to address priority natural resource concerns.
- A cornerstone of this approach is to encourage producers to implement a system of practices that address the concept for **A**voiding, **C**ontrolling, or **T**rapping pollutants, or “ACT.”





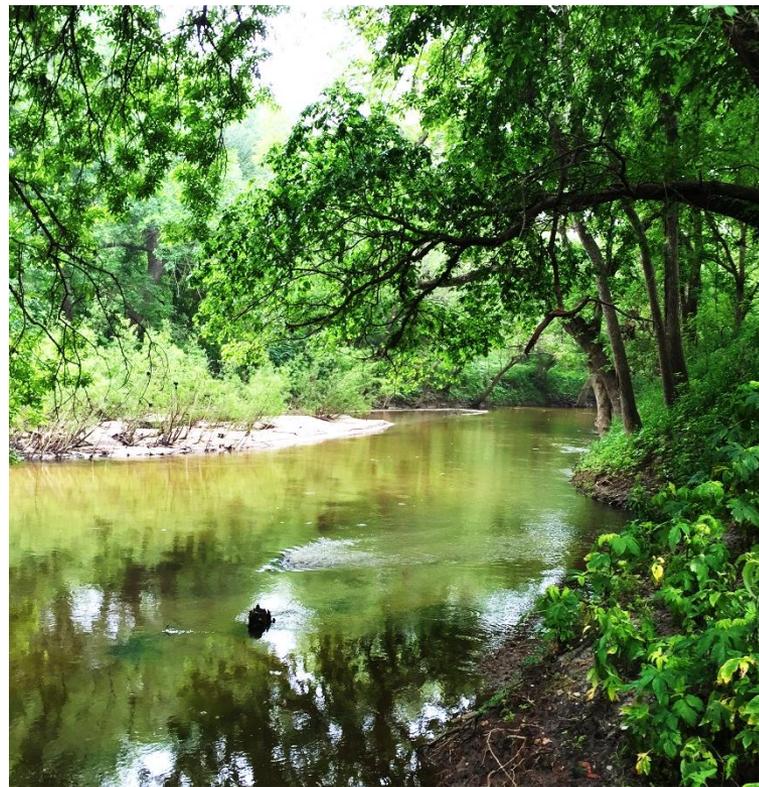
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Avoid

Avoidance helps manage nutrients and sediment source control from agricultural lands, including animal production facilities.

Practices such as **Nutrient Management**, **Cover Crop**, and **Conservation Crop Rotation** help producers avoid pollution by reducing the amount of nutrients available in runoff or leaching into water bodies and watersheds.

Practices such as cover crops and crop rotation help take up nutrients to avoid potential runoff and pollution. Crop rotations that include differing crops, such as legumes, can limit amounts of commercial nutrients applied.





Control

Choose practices that will help with controlling erosion and runoff.

Specific practices such as **No-till/Strip/Till/Direct Seed**, **Mulch Tillage**, and **Ridge Till** are foundation practices to recommend to producers.

Practices such as **Cover Crop** will also do double duty by helping with Avoidance as well as Controlling.

Other facilitating practices, such as **Terraces** or **Stripcropping**, help control erosion and may manage runoff to reduce nutrients loading.



Trap



The last line of defense against potential pollutants is to trap them.

Practices such as **Contour Buffers**, **Filter Strips**, **Riparian Buffers** and the suite of **wetland practices to create, enhance, and/or restore wetlands** all serve to trap and uptake nutrients before entering water bodies.





Core Practices	Code	Avoiding	Controlling	Trapping
Waste Storage Facility	313	X	X	
Composting Facility	317	X	X	
Conservation Cover	327	X		X
Conservation Crop Rotation	328	X		
Residue and Tillage Management, No Till/Strip Till/Direct Seed	329		X	X
Cover Crop	340	X		X
Critical Area Planting	342		X	X
Residue Management, Seasonal	344		X	X
Residue and Tillage Management, Mulch Till	345		X	X
Field Border	386		X	X
Riparian Herbaceous Cover	390			X
Riparian Forest Buffer	391			X
Filter Strip	393		X	X
Stream Habitat Improvement and Management	395	X		
Grade Stabilization Structure	410		X	X
Grassed Waterway	412		X	
Irrigation Pipeline	430		X	
Irrigation Reservoir	436		X	
Irrigation Water Management	449		X	
Access Control	472	X		
Livestock Pipeline	516	X		
Prescribed Grazing	528	X		
Range Planting	550			X
Heavy Use Area Protection	561	X		
Animal Trails and Walkways	575		X	
Nutrient Management	590	X		
Terrace	600		X	
Vegetative Barrier	601			X
Tree/Shrub Establishment	612	X		X
Waste Treatment	629		X	
Waste Transfer	634	X		
Water and Sediment Control Basin	638		X	X





Supporting Practices	Code	Avoiding	Controlling	Trapping
Agrichemical Handling Facility	309	X		
Alley Cropping	311		X	X
Brush Management	314	X	X	
Herbaceous Weed Control	315	X		
Sediment Basin	350		X	
Diversion	362		X	
Roofs and Covers	367	X	X	
Pond	378			X
Windbreak/Shelterbelt Establishment	380		X	X
Silvopasture Establishment	381	X		
Fence	382	X		
Woody Residue Treatment	384	X		
Hedgerow Planting	422	X		X
Irrigation Pipeline	430		X	
Irrigation System, Micro-Irrigation	441	X		
Irrigation System, Sprinkler	442	X		
Precision Land Forming	462			X
Lined Waterway or Outlet	468		X	
Mulching	484		X	X
Forage and Biomass Planting	512	X		X
Livestock Pipeline	516	X	X	
Pond Sealing	521A	X	X	X
Pumping Plant	533	X		
Range Planting	550			X
Row Arrangement	557	X		
Roof Runoff Structure	558	X		
Access Road	560	X		
Spring Development	574	X		
Stream Crossing	578	X		
Stripcropping	585		X	
Structure for Water Control	587		X	X
Integrated Pest Management	595	X		
Herbaceous Wind Barriers	603		X	
Watering Facility	614	X		
Underground Outlet	620		X	
Solid/Liquid Waste Separation Facility	632		X	
Water Harvesting Catchment	636	X	X	
Restoration and Management of Declining Habitats	643	X		
Wetland Wildlife Habitat Management	644		X	
Windbreak/Shelterbelt Renovation	650		X	X
Wetland Restoration	657		X	
Wetland Enhancement	659		X	
Upland Wildlife Habitat Management	645	X		





Partnerships

- **NRCS identified priority watersheds through the help of local partnerships and state and federal water quality agencies. NRCS will continue to work with our partners in this initiative.**
- **Partners include the Texas State Soil & Water Conservation Board, TCEQ and the EPA, along with the Upper Leon Soil & Water Conservation District.**
- **NRCS will continue to coordinate with local, state and federal agencies, conservation districts, nongovernmental organizations and others to implement this initiative**





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Questions?

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