



Nonpoint Source Pollution in Texas

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Texas State Soil and Water Conservation Board

ANRA CRP Steering Committee Meeting
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Federal Clean Water Act

- “restore & maintain the chemical, physical & biological integrity of the Nation’s waters”
 - “water quality which provides for the protection of fish, shellfish, & wildlife & provides for recreation in & on the water”
- also, federal Safe Drinking Water Act





Federal Clean Water Act

- requires States to establish Water Quality Standards to achieve objective & goals
- requires States to identify waterbodies failing to meet water quality standards & not supporting their designated uses
 - this list of impaired waterbodies is known as the *Texas 303(d) List*
 - must be submitted to USEPA for review & approval every two years



WQS = Uses + Criteria

- Recreation Use
 - Bacteria (E. coli or enterococci)
- Aquatic Life Use
 - Dissolved Oxygen
 - Nutrients (large reservoirs)
 - Habitat and Aquatic Community
- Oyster Waters
 - Bacteria (Fecal Coliform)
- Domestic Water Supply
 - Nutrients, pH
 - Chlorides, Sulfates, Total Dissolved Solids
 - Toxics
- Fish Consumption
 - Bioaccumulation of metals and organics





Water Quality in Texas

Texas Commission on Environmental Quality (TCEQ)

- General jurisdiction and responsibility for water quality in Texas
- Establish water quality standards
- Collect and assess data, report on water quality conditions [Integrated Report including 303(d) List]
- Issue permits for point sources (wastewater treatment facilities, concentrated animal feeding operations, urban stormwater)
- Prevent and abate urban, and other, nonpoint sources of pollution
- Regulatory enforcement of water quality standards and permits



Water Quality in Texas

Texas State Soil and Water Conservation Board (TSSWCB)

- Lead agency in Texas responsible for planning, implementing and managing programs and practices for preventing and abating agricultural and silvicultural (forestry-related) nonpoint sources of water pollution (Texas Agriculture Code §201.026)
- Provides technical and financial assistance to landowners to develop and implement farm-level conservation plans on agricultural lands (Water Quality Management Plans)

Federal Agencies



- U.S. Environmental Protection Agency
- U.S. Geological Survey
- USDA-Natural Resources Conservation Service
- USDA-Agricultural Research Service
- USDA-Farm Service Agency
- U.S. Fish & Wildlife Service
- U.S. Army Corps of Engineers

Other State Agencies

- Texas General Land Office (GLO)
 - Coastal zone management
- Texas Department of Agriculture (TDA)
 - Regulation of pesticide use
- Texas Water Development Board (TWDB)
 - Water supply planning
 - State Revolving Fund Load Program
- Railroad Commission of Texas (RRC)
 - Oil & gas activities
- Texas Parks and Wildlife Department (TPWD)
 - Protecting State's fish and wildlife resources
- Texas A&M AgriLife
 - Land grant entity
 - Extension & Research
 - Texas Forest Service
- River Authorities & Texas Clean Rivers Program





2008 Texas 303(d) List

- data from December 1999 to November 2006
- 838 waterbody-pollutant combinations (impairments by AU)
- 387 individual waterbodies impaired (295)
- Need to deal with magnitude of listings through any & all means
- 2010 IR has been submitted to EPA for approval



2008 Texas 303(d) List

Type	#	%
bacteria (recreation + oyster)	405	48.3
tissue, metals/organics in	135	16.1
dissolved oxygen	125	14.9
salts	79	9.4
pH	43	5.1
biological integrity	29	3.5
toxicity in sediment/water	14	1.7
metals in water	8	1.0
	838	

Texas Nonpoint Source Management Program



Texas Commission on
Environmental Quality

SPR-NDM



Texas State Soil and
Water Conservation Board

December 2001

- 5+ year strategic plan for managing NPS pollution in Texas
- Required by federal CWA in order for State to receive §319(h) grant funds from USEPA
- Currently being revised for spring 2012
- Jointly administered





Restore Water Quality

(tools to remove from 303(d) List)

- additional monitoring demonstrates now achieving water quality standards
- conduct a Use Attainability Analysis to change water quality standards
- develop/implement Total Maximum Daily Load & Implementation Plan for adoption/approval
- develop/implement a Watershed Protection Plan



Implementation Strategy

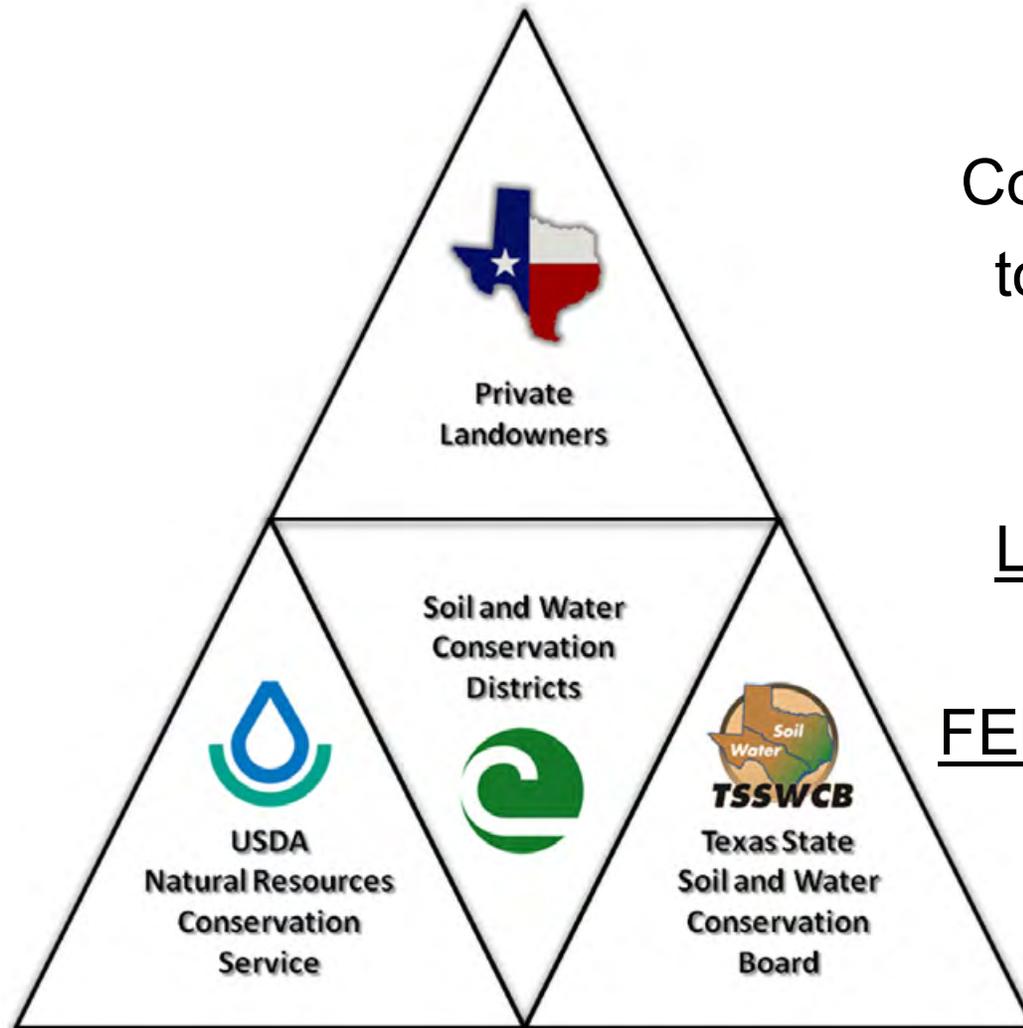
- Proactively address agricultural and silvicultural sources of pollutants through voluntary implementation of BMPs by private landowners to bring impaired waterbodies back into compliance with water quality standards or to prevent healthy waterbodies from becoming impaired



How Is This Done?

- Technical assistance for private landowners to develop Water Quality Management Plans (WQMPs) that implement BMPs
- Financial assistance for private landowners through traditional cost-share programs to implement WQMPs/BMPs
- Research on effectiveness of BMPs
- Education on and Demonstration of BMPs

Texas Conservation Partnership



Providing
Conservation Assistance
to Private Landowners
for 70+ Years

LOCAL = 216 SWCDs

STATE = TSSWCB

FEDERAL = USDA-NRCS

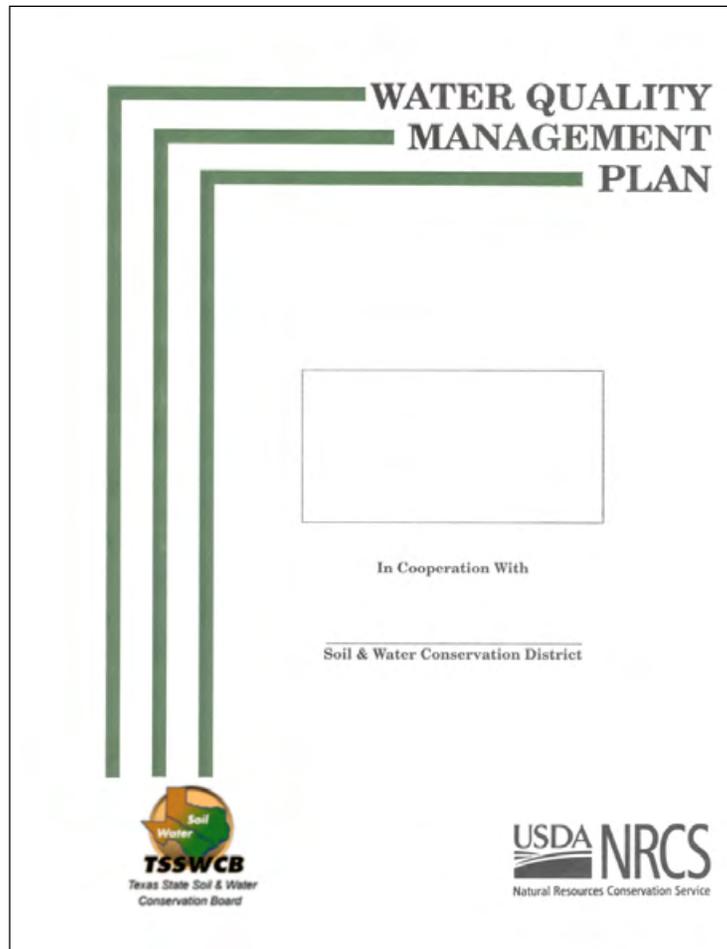


Critical Partners

- Texas AgriLife Extension Service
 - Education and demonstration of BMPs
 - Soil testing campaigns
- Texas Forest Service
 - Silvicultural NPS management
- Texas Department of Agriculture
 - lead state agency for the regulation of pesticide use and application
- Texas AgriLife Research
 - Research and demonstration of BMP effectiveness
- USDA Agricultural Research Service
 - Research and demonstration of BMP effectiveness



Water Quality Management Plans



- Site-specific plan for land improvement measures developed through SWCD for agricultural lands
- Provides farmers and ranchers a voluntary opportunity 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, or technologies applicable to the planned land use
- Best available management and technology as described in NRCS Field Office Technical Guide



Why have a WQMP?

- Abate/prevent erosion and promote conservation
- A strategic “management” plan for your operation
- “Assurance” policy – proof that you aren’t just sitting around doing nothing
- Demonstrate that voluntary conservation programs promote agricultural production and environmental quality as compatible goals and that agriculture is doing our part to protect water quality
- Resolve water quality complaints through voluntary process with SWCD and TSSWCB



Financial Assistance

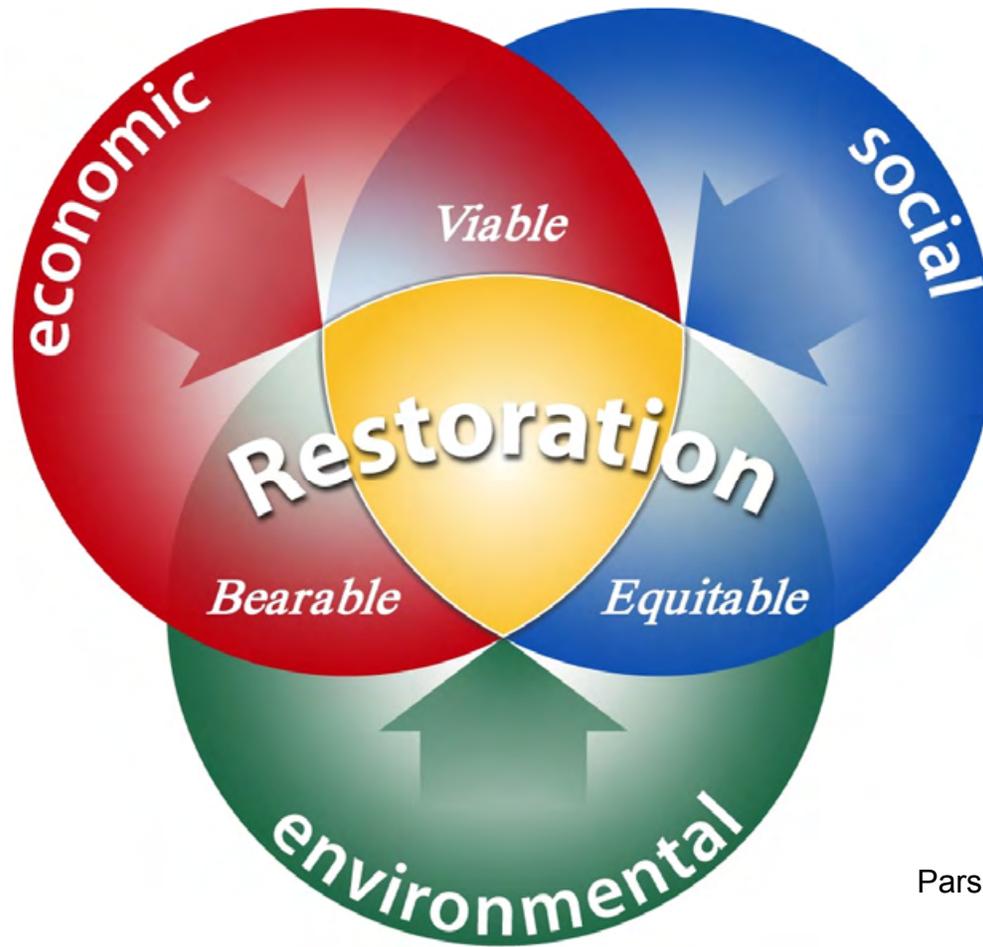


State (TSSWCB) or Federal (NRCS) assistance is obtainable for certain conservation practices

- TSSWCB
- NRCS



- Farm Bill Programs (EQIP, WHIP, WRP, AWEP)
- Local Work Group meetings to set priorities
- Statewide Resource Concern



Parsons 2010 & Adams 2006



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