



Lampasas River Watershed Planning Process

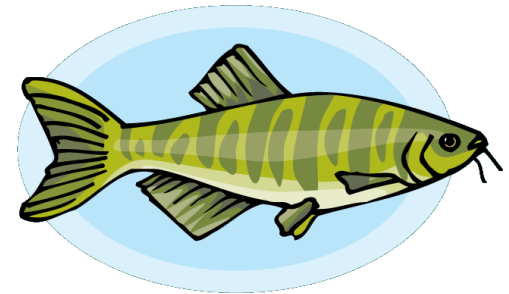
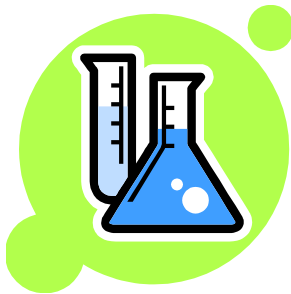
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Texas State Soil and Water Conservation Board

Public Meeting
May 7, 2009 and May 12, 2009
Killeen, TX and Lampasas, TX



Federal Clean Water Act

- “restore and maintain the chemical, physical and biological integrity of the Nation’s waters”
 - fishable/swimable goal
- also, federal Safe Drinking Water Act
 - drinkable goal





Federal Clean Water Act

- requires States to establish Water Quality Standards to achieve objective & goals
- requires States to identify waterbodies failing to meet or not expected 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



2008 Texas 303(d) List

- data from December 1999 to November 2006 was assessed
- 838 waterbody-pollutant combinations
 - 48% of these are for elevated bacteria
- 387 individual waterbodies impaired
- need to deal with magnitude of listings through any & all means
 - SWQM, UAA, WPP, TMDL

Texas Nonpoint Source Management Program



Texas Commission on
Environmental Quality



Texas State Soil and
Water Conservation Board

NPS-MDM

December 2001

- 5-year strategic plan for managing nonpoint source (NPS) pollution in Texas
- required by federal CWA in order for State to receive 319(h) grant funds from USEPA
- jointly administered by TSSWCB & TCEQ

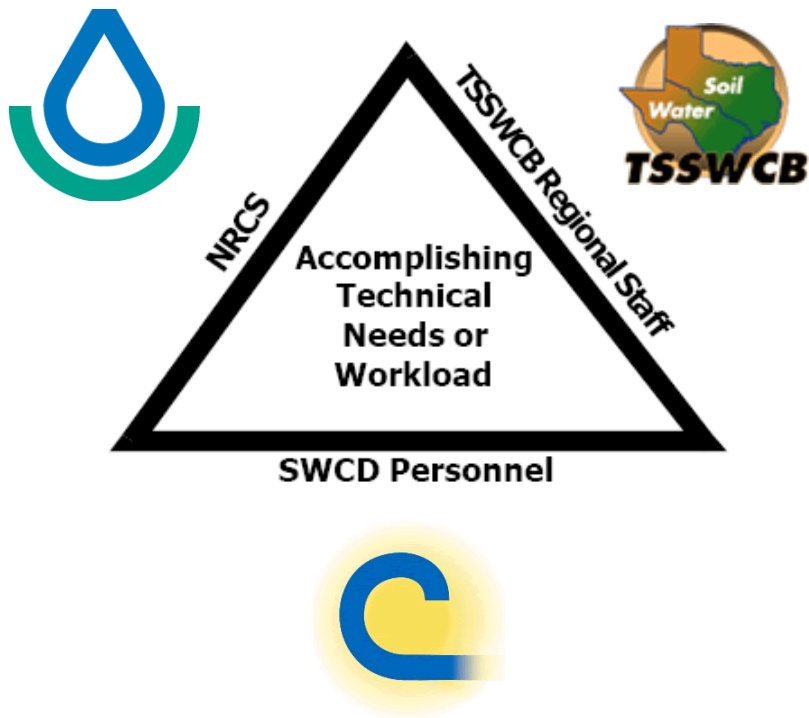


Water Quality in Texas



- Texas State Soil and Water Conservation Board
 - agricultural & silvicultural NPS
- Texas Commission on Environmental Quality
 - point source permitting (WWTF, CAFO, MS4)
 - all other forms of NPS

Texas Conservation Partnership



- Providing Conservation Assistance to Private Landowners for 70+ Years
- LOCAL
216 Soil & Water Conservation Districts (SWCDs)
- STATE
Texas State Soil and Water Conservation Board (TSSWCB)
- FEDERAL
U.S. Department of Agriculture
Natural Resources
Conservation Service (NRCS)

- so, for the Lampasas River watershed, how do we deal with
 - bacteria impairment
 - dissolved oxygen impairment
 - nutrient concerns



Restore Water Quality (remove from 303(d) List)

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



What is a UAA?

- Use Attainability Analysis
- evaluation of waterbody & its ability to achieve a specific level of use
- results in site-specific water quality standard



What is a TMDL?

- Total Maximum Daily Load
 - like a budget for pollution in the stream
 - defines the maximum amount (or load) of a pollutant that a waterbody can assimilate on a daily basis & still meet water quality standards
 - allocates pollutant loads between point sources & nonpoint sources
 - requires adoption by TCEQ & must be approved by USEPA



What is a TMDL?

- Implementation Plan (I-Plan)
 - based on environmental target of TMDL, an I-Plan is developed
 - prescribes measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody
 - specifies limits for point source dischargers & recommends best management practices for nonpoint sources
 - Only requires State approval
- together, the TMDL & the I-Plan serve as the mechanism to reduce the pollutant, restore the full use of the waterbody & remove it from the 303(d) List



TMDLs are Limited

- to single waterbody-pollutant combinations
- strict guidance from USEPA
- requires TCEQ/USEPA adoption/approval
- only addresses impairments, no concerns, no protective aspect



What is a WPP?

- Watershed Protection Plan
- coordinated framework for implementing prioritized & integrated water quality protection & restoration strategies
- addresses complex water quality problems that cross multiple jurisdictions
- developed & implemented through diverse, well integrated partnerships



What is a WPP?

- specific geographic watershed focus large enough so that its implementation holistically addresses all of the sources & causes of impairments & threats to water resources
- assures the long-term health of the watershed through strategies for protecting unimpaired waters & restoring impaired waters
- tools to better leverage the resources of local governments, state & federal agencies, & non-governmental organizations

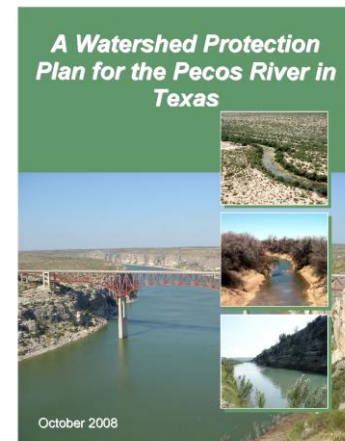
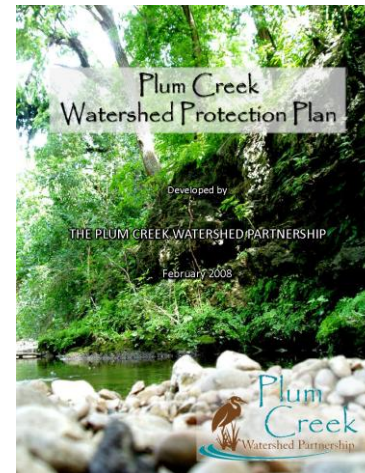
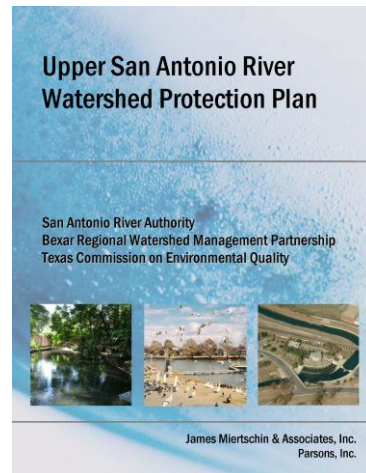
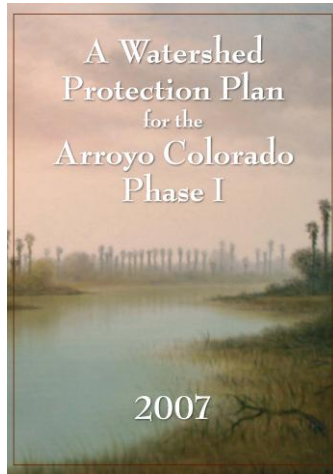


What is a WPP?

- voluntary, proactive approach
- not adopted/approved by TCEQ or USEPA
- needed for CWA 319(h) Grant funding
- implementation is iterative through Adaptive Management

- Convergence of opinion that “watershed plans are necessary precedents for successful watershed management, protection, and restoration interventions...”
- In a recent study,... “the use of watershed plans was the only factor with a high correlation with potential positive environmental outcomes.”

Examples of Completed WPPs





Water Quality Solutions Identified in Other WPPs

- changes to Wastewater Treatment Facility permits & possible upgrades
- repair & replace failing septic systems
- technical & financial assistance to landowners for voluntary implementation of BMPs on agricultural land
- education on & demonstration of BMPs



Interaction between TMDLs and WPPs

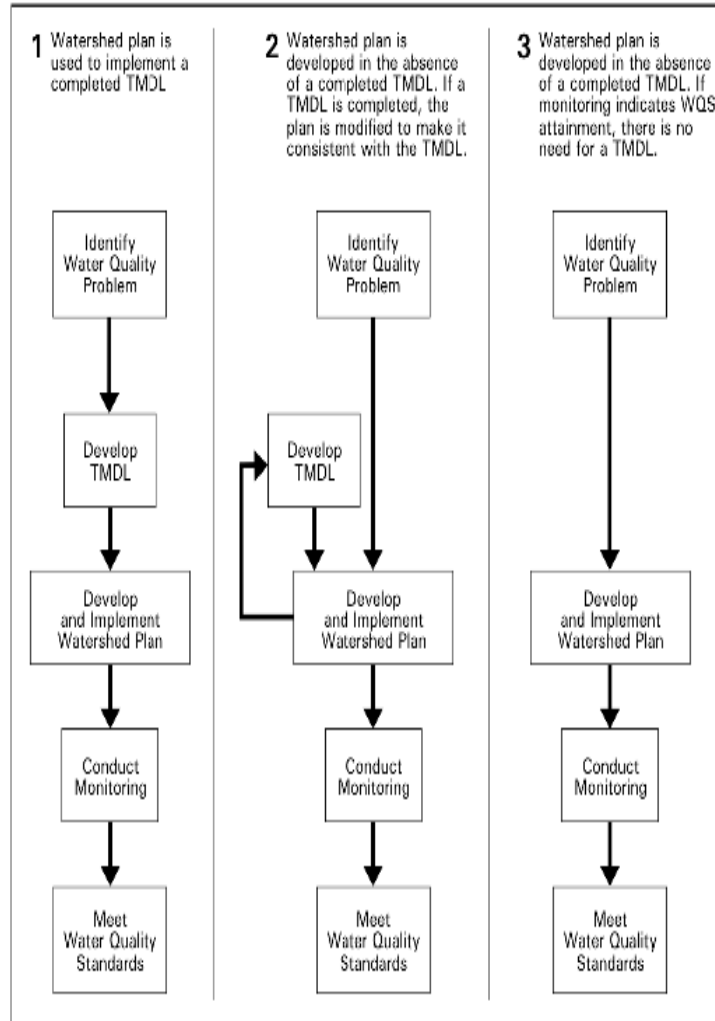


Figure 2-2. Potential relationships between TMDLs and watershed plans.



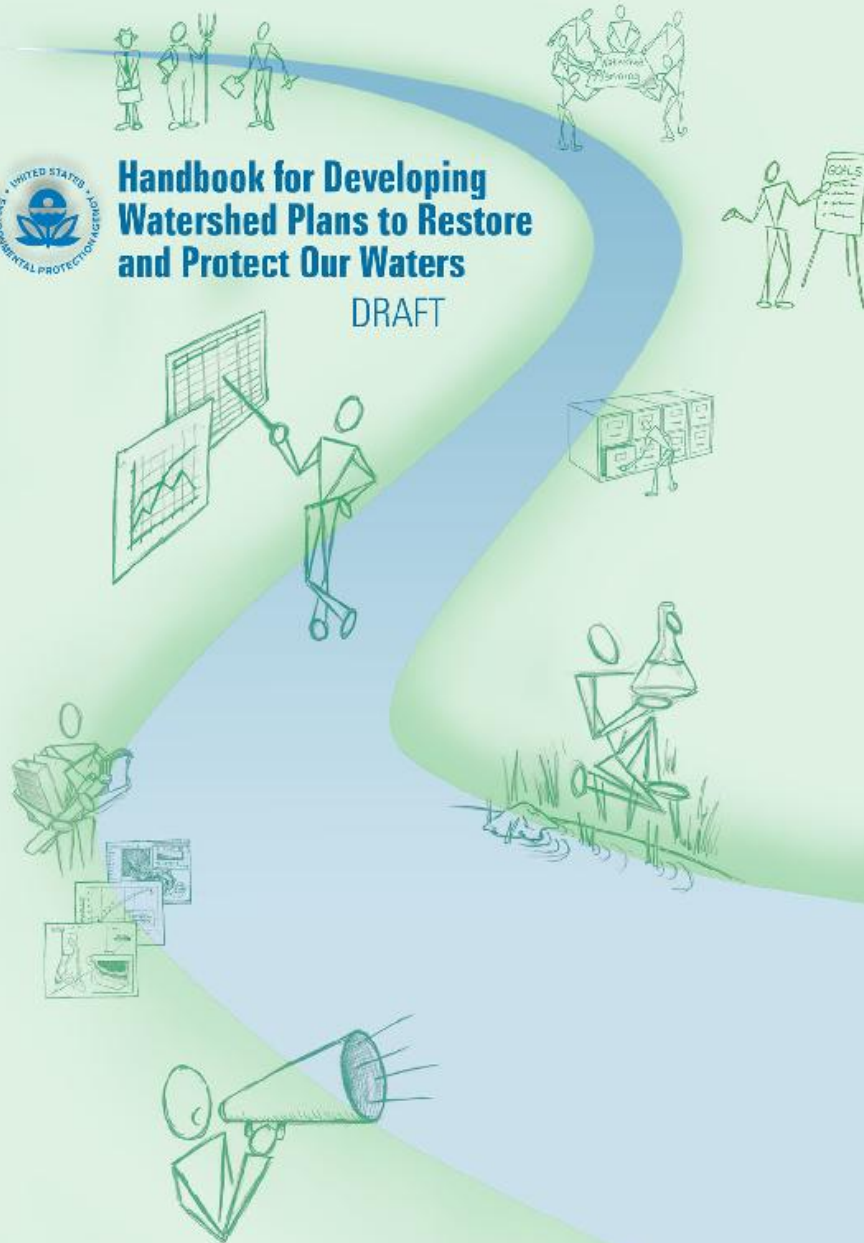
Impetus for WPPs

- Texas gets ~\$9M in CWA 319(h) monies each year
 - equally split between TSSWCB & TCEQ
- USEPA 319(h) Grant Guidance promulgated in 2003 describes WPPs & 9 elements
- ½ of CWA 319(h) grant allocation must be used in development or implementation of WPPs for impaired waterbodies



Handbook for Developing Watershed Plans to Restore and Protect Our Waters

DRAFT





Nine Elements

- a. Identification of the causes
- b. Estimate of the load reductions
- c. Description of management measures
- d. Estimate of financial assistance needed
- e. Information/education component
- f. Schedule for implementing
- g. Description of interim, measurable milestones
- h. Set of criteria to determine achievement
- i. Monitoring component

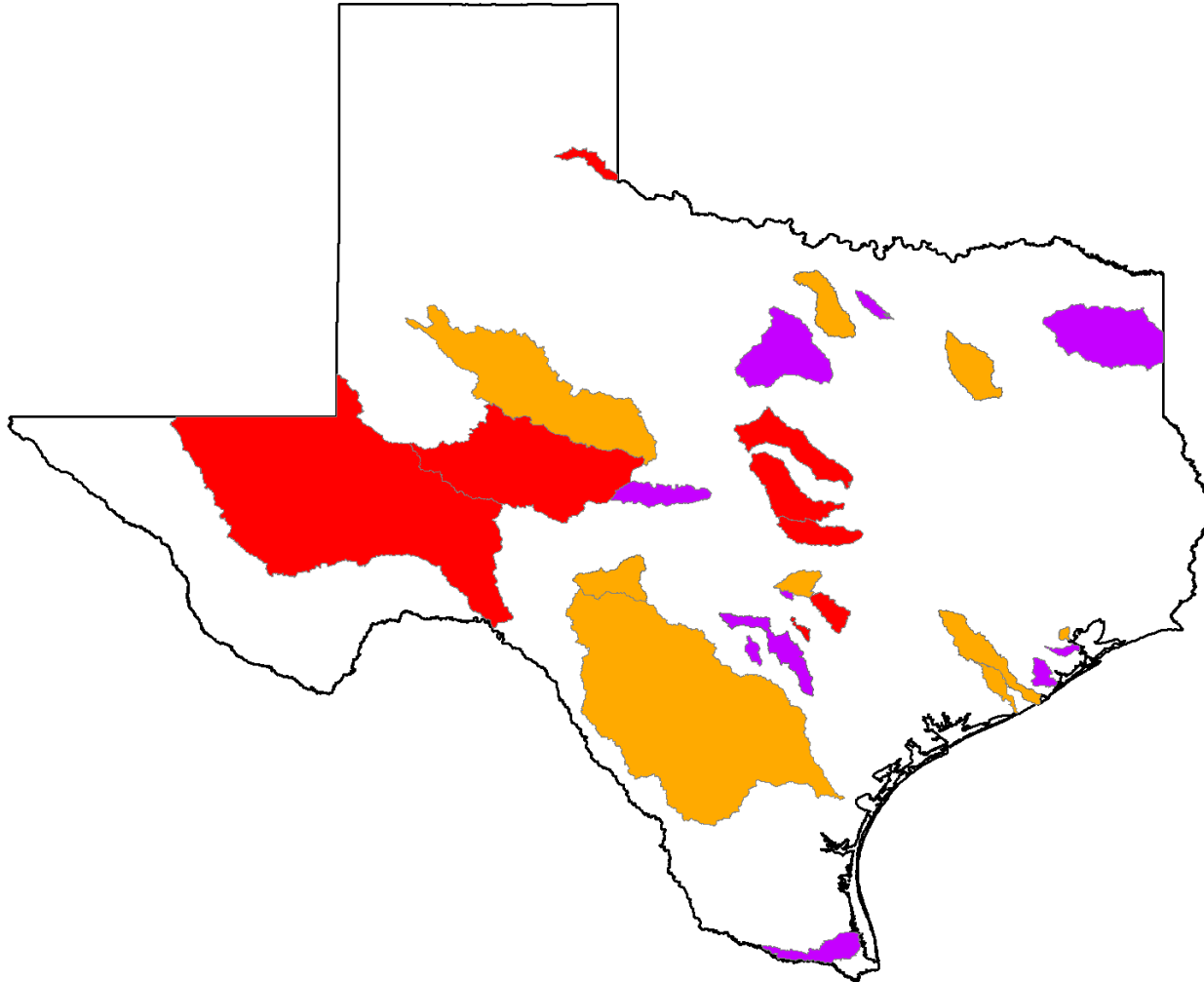


Lampasas WPP

- several individuals and entities discussed watershed planning for the Lampasas River and Stillhouse Hollow Reservoir with TSSWCB
- TSSWCB provided a CWA §319(h) NPS Grant to Texas AgriLife Research - Blackland
 - to facilitate WPP development process in this watershed by providing technical assistance to local stakeholders
- TSSWCB & TCEQ will be able to spend CWA §319(h) grant monies to implement the Lampasas WPP

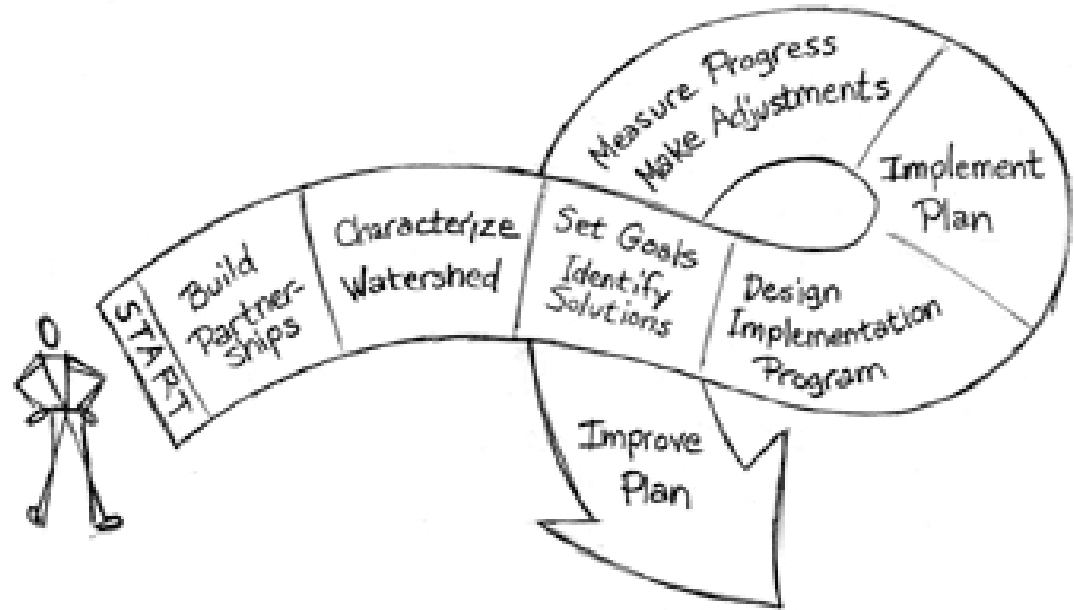


Texas WPPs





Watershed Planning Process





Stakeholders

- stakeholder driven decision-making
 - compromise & consensus
 - science-based analysis
- role of watershed coordinators to understand links between pollutants & watershed impacts then translate that for stakeholders
 - => facilitate the watershed planning process



Stakeholders

- what brings a particular stakeholder to the table?
 - motivation leads to implementation
 - illegal dumping at stream sites
 - ecosystem issues (instream flows, habitat, brush control)



Stakeholders

- private individual landowners & citizens
- groups of landowners & citizens
 - Texas Farm Bureau, Texas and Southwestern Cattle Raisers Association
 - Sierra Club, National Wildlife Federation, Audubon Society, The Nature Conservancy
 - Texas Wildlife Association, local wildlife management associations/cooperatives
 - Texas Master Naturalists, Texas Master Gardeners
 - Lake Stillhouse Hollow Cleanwater Steering Committee, Inc.
 - Texas Stream Team

Stakeholders

- local & regional governmental entities
 - cities & counties
 - public drinking water suppliers
 - river authorities & Texas Clean Rivers Program
 - groundwater conservation districts
 - soil & water conservation districts



State Agencies

- Texas Commission on Environmental Quality
- Texas State Soil and Water Conservation Board
- Texas Department of Agriculture
- Texas Parks & Wildlife Department
- Texas AgriLife Extension Service
- Texas AgriLife Research
- Texas Forest Service
- Texas Water Development Board



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
- U.S. Army – Fort Hood



Take Home Message

- federal Clean Water Act requires us to take action to restore water quality in the Lampasas River watershed
- WPP is the preferred, voluntary, holistic path to accomplish this
- watershed planning is driven by stakeholder decision-making, facilitated by a watershed coordinator



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