

# Partnership Building Experiences in the Plum Creek Watershed

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Nikki Dictson  
Texas AgriLife Extension Service

Improving Lives. Improving Texas.

# Watershed Protection Plan Pilot Project

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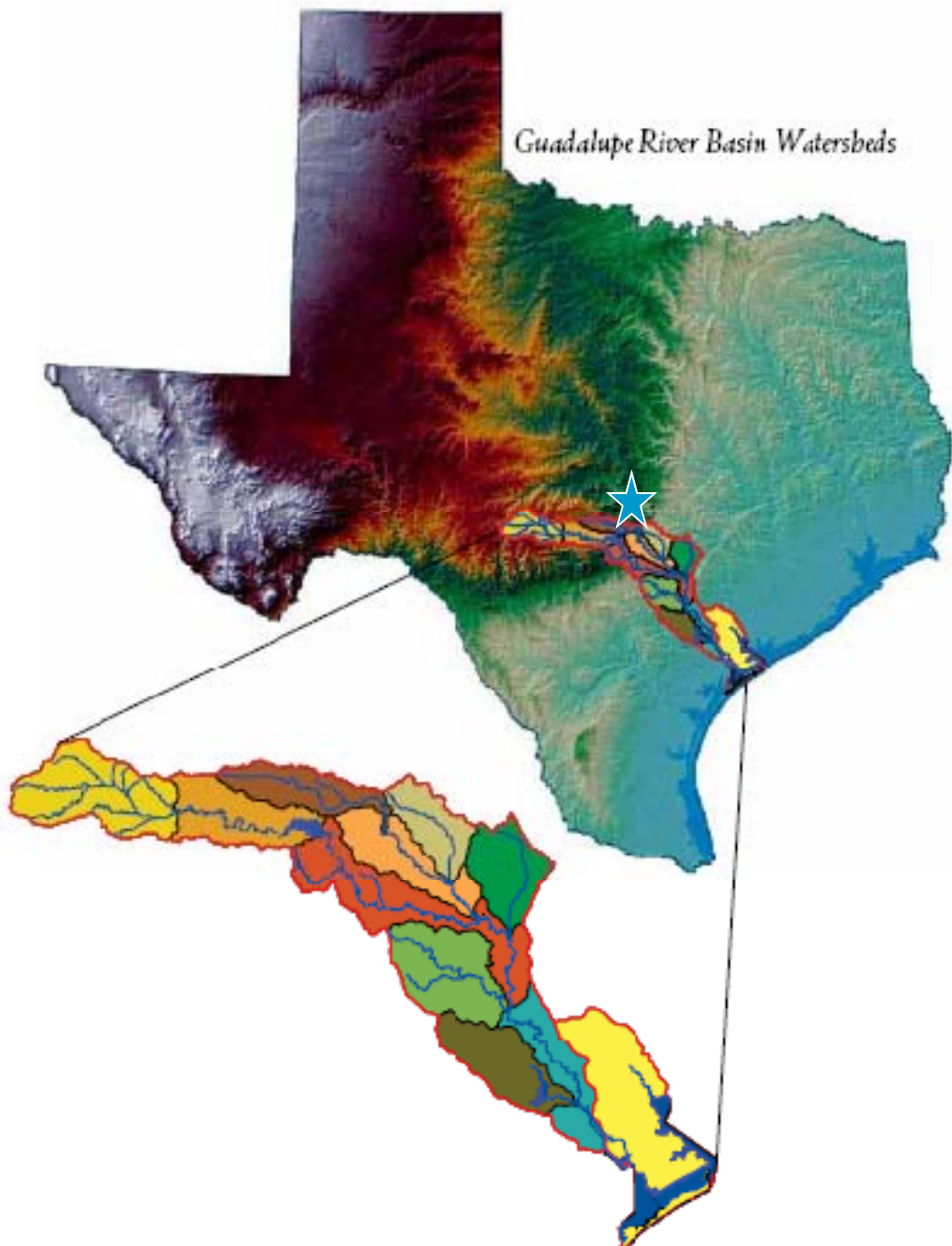
- Texas AgriLife Extension Service partnered with the Texas State Soil and Water Conservation Board (TSSWCB) to pilot a Watershed Protection Plan project
- The nine element watershed protection plan was to be developed by local stakeholders in the watershed in 18 – 24 months



# Pilot Project Goals

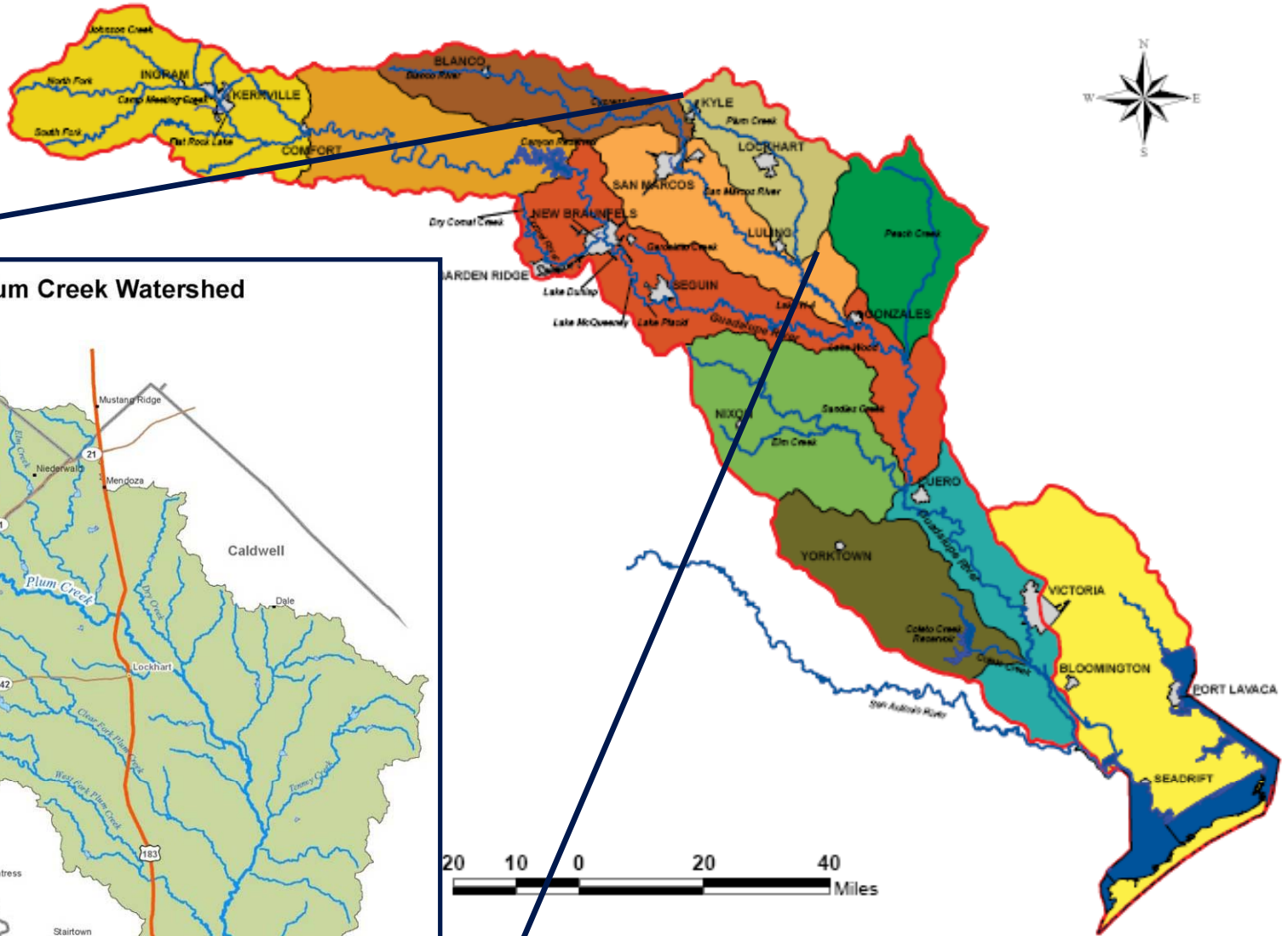
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- The overall goal being to restore and protect the water quality and to remove Plum Creek from the 303(d) list
- Develop and deliver science-based watershed education, outreach and technology transfer to local stakeholders enabling them to address local water quality impairments
- Engage and facilitate stakeholders through the process of developing nine element Watershed Protection Plans

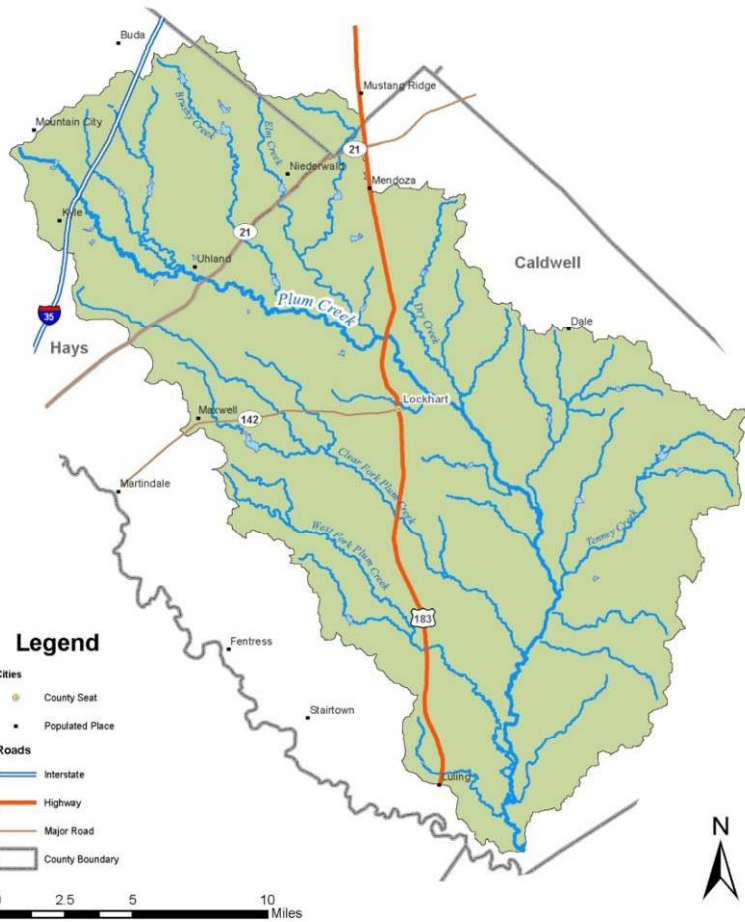


Plum Creek is  
located in the  
Guadalupe-  
Blanco River  
Basin

# GUADALUPE RIVER BASIN WATERSHEDS



## Plum Creek Watershed



# Plum Creek Watershed Partnership

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- December 15, 2005 - Plum Creek was selected as the pilot watershed by the Wharton Regional Watershed Coordination Steering Committee based on a 10 metric ranking system
- January 2006 - Meeting and watershed tour with Hays & Caldwell County Agents and Caldwell County Commissioner, GBRA, PCCD, and TPWD.
- January thru March
  - Gathered Watershed Data
  - Conducted Meetings and Media Promoting Project



# Project Partners



# Media Promotion for Project

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- Initially developed and sent out 6 news releases that went out to over 100 papers and media outlets through Agriculture Communications.
- We pitched these stories to the following local outlets:
  1. Austin American Statesman
  2. Country World
  3. San Marcos Record
  4. Kyle Eagle
  5. Hays Free Press
  6. Lockhart Post Register
  7. Luling News Boy



# Media Promotion Continued

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- TSSWCB News Release in January 6, 2006 – Plum Creek Selected for Watershed Protection Plan
- TCE News Releases January through June
  - Jan. 27, 2006, Texas Cooperative Extension Partnering in Plum Creek Watershed Pilot Program
  - March 30, 2006, Public Invited to Join Plum Creek Watershed Project
  - April 13, 2006, Plum Creek Watershed Partnership Under Way; Meetings Set for Kyle and Luling
  - April 19, 2006, Media Advisory: Watershed Meetings Set for Kyle, Luling
  - June 5, 2006, Public Invited to Plum Creek Watershed Project Meeting
  - June 8, 2006, Preventive Measures Can Help Protect Plum Creek Watershed



# Meetings Promoting Plum Creek Watershed Partnership

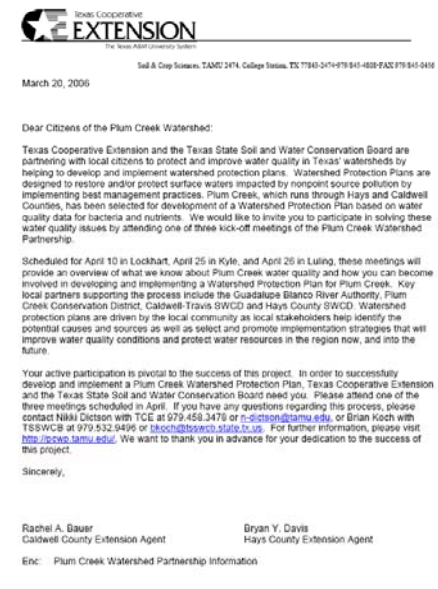
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- Caldwell-Travis County SWCD and Hays SWCD Board Meetings on January 11, 2006 and February 1, 2006
- Plum Creek Conservation District Board Meeting on Jan. 17
- Guadalupe-Blanco River Authority Board Meeting on Feb. 15
- Guadalupe-Blanco River Authority Clean Rivers Steering Committee Meeting March 23, 2006
- Hays County Wildlife Management Training on April 29, 2006
- Luling Kiwanis Club Meeting on May 10, 2006
- Luling Foundation Field Day on May 8, 2006
- Kyle's Citizens Water Advisory Group Meeting on May 25, 2006
- TXDOT SH-130 Project Team



# Websites and Brochures

- Created the Plum Creek Watershed Partnership Website <http://pcwp.tamu.edu> and informational brochure (fact sheet).
- Received contact information from
  - County Agents
  - NRCS
  - GBRA
- Mailed out over 700 brochures and invitations to the three Public Meetings and resent them after the first meeting.



# Plum Creek Website

## plum creek watershed partnership



Contact Us

Project Overview

Meetings

Water Quality

Newsletter

Publications

Watershed Protection Plan

Links

Partners

Forum

### [Download the Draft of Plum Creek Watershed Protection Plan](#)

Updated 2/15/2008

The Plum Creek Watershed Partnership (PCWP) is developing a Watershed Protection Plan (WPP) and promoting a sustainable, proactive approach to improving water quality at the local level. The PCWP consists of a steering committee consisting of local stakeholders, a technical advisory group consisting of local, state and federal agencies, and five work groups composed of steering committee members, agency personnel and other interested citizens. The PCWP has assessed the water quality issues in the watershed, determined needed pollutant load reductions, and is in the process of wrapping up the development of the Draft WPP. The watershed protection plan process has led to implementation strategies that will include the necessary education and awareness campaigns, best management practices, and other measures to be implemented to improve and protect the water quality in Plum Creek. Texas State Soil and Water Conservation Board (TSSWCB) and Texas AgriLife Extension Service have partnered to facilitate plan development and education and awareness, along with the TSSWCB Wharton Regional Office- Watershed Coordination Steering Committee.

Plum Creek rises in Hays County north of Kyle and runs south through Caldwell County, passing Lockhart and Luling, and eventually joins the San Marcos River at their confluence at the Caldwell-Gonzales County line. The main stem of Plum Creek is a 52 river mile segment with a drainage area of approximately 397 square miles. Major tributaries to Plum Creek in the watershed include: Brushy Creek, Clear Fork of Plum Creek, West Fork of Plum Creek, Elm Creek, Dry Creek, Porter Creek, Tenney Creek and Salt Branch.

According to the Draft 2006 Texas Water Quality Inventory and 303(d) List, Plum Creek (Segment 1810) exhibits elevated nutrient levels and is impaired by elevated bacteria concentrations for contact recreation uses. These water quality issues, in conjunction with land use across the watershed, increasing urban development, oil and gas production and potential for agricultural nonpoint source pollution, were considered when Plum Creek was selected for the WPP process.

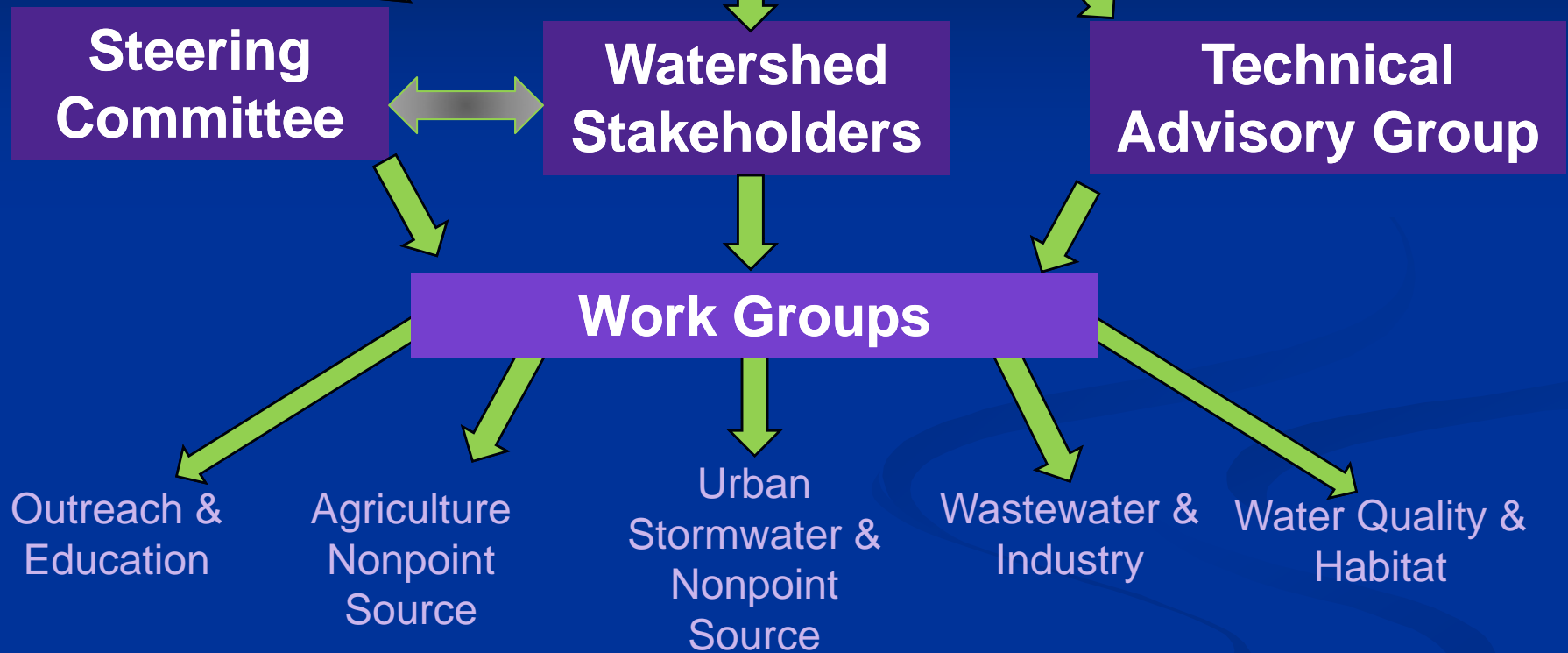


# Plum Creek Public Meetings

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- Three Public Meetings in April 2006 in Lockhart, Luling and Kyle
- Discussed the WQ issues, watershed, and WPP Project
- Had County Commissioner for that area give the Welcome
- Door Prizes and Food available
- Conducted a survey with questions about themselves and their interest in participating in the Steering Committee
- We also asked them “who else needed to be invited to participate?” and told them to tell their neighbors about the first May meeting.





At the First Steering Committee Meeting decided:

- Structure of the Group
- Ground Rules or Bylaws
- Determined needed Work Groups

# Plum Creek Steering Committee

Bill Steubing, LO

Bill Watson, Lawyer/LO

Bobby Berger, Luling

Bud Wade, Caldwell-Travis SWCD

Chris Powell, Luling

James Earp, Kyle

Debbie Magin , GBRA

Dianne Wassenich, SMRF

Frank Hamilton, Realtor

Gary Dickenson, Pioneer Seed

Joe K. Smith, Dentist/LO

Johnie Halliburton, PCCD

Marilyn Abbott, Battle for PC

Melba Sexton, Luling School Bd

Nathan Johnson, LO

Paul Pittman, Polonia WSC

Peter Reinecke, LO

Rick Waddell, Lehigh Cement

Robert Wilson, Lawyer/LO

Roger Miranda, Citizen of Kyle

Stanley Fees, City of Buda

Susan Meckel, LCRA/LO

Susie Carter, Hays SWCD

Vance Rodgers, Lockhart



# Technical Advisory Group Members

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- Texas Commission on Environmental Quality (TCEQ)
- Texas AgriLife Extension Service
- Texas Department of Agriculture (TDA)
- Texas Department of Transportation (TxDOT)
- Texas Farm Bureau (TFB)
- Texas Parks and Wildlife Department (TPWD)
- The Railroad Commission of Texas (RRC)
- Texas State Soil and Water Conservation Board (TSS)
- Texas Water Development Board (TWDB)
- USDA Natural Resources Conservation Service (NRCS)
- U.S. Environmental Protection Agency (EPA)
- U.S. Geological Survey (USGS)



# Plum Creek Watershed Partnership Meetings

- May 9, 2006 – First Steering Committee Meeting (49)
- June 20, 2006 – Steering Committee Meeting/Work Groups (42)
- July 2006 – Five Work Group Meetings
- July 2006 – Watershed Tour
- August 10, 2006 – Steering Committee/Technical Advisory Group Meeting (45)

**Monthly meetings of either steering committee/  
partnership or work group meetings.**



# Watershed Tour

- On July 27, 2006 from 9:00 am to 4:00 pm.
- 62 participants and speakers
- Tour Stops included:
  - Urban - Plum Creek Subdivision in Kyle at headwaters
  - GBRA's Plum Creek Monitoring Site near Uhland
  - Lockhart Springs in Lockhart
  - Don Meador, Ag Producer
  - Drive on south eastern side of Watershed / Oil Wells
  - Lockhart WWTP Tour by GBRA



# The Nine Elements

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- Identification of the causes.
- Estimate of needed load reductions.
- Description of management measures.
- Estimate of technical and financial assistance needed to implement the plan.
- Information/education component to enhance public understanding.
- Schedule for implementation.
- Description of interim, measurable milestones.
- Set of criteria to determine whether load reductions are being achieved.
- Monitoring component to evaluate effectiveness of implementation.

# Major Tasks

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- Identify pollutant sources
- Gather data and information and identify gaps
- Estimate pollutant loads
- Set Goals and Objectives
- Identify BMPs that could be implemented to reduce pollution
- Identify Outreach and Education that is needed
- Develop an Implementation Plan & Schedule

# Potential Sources

Potential Sources	Bacteria	Nutrients	Other
<u>Septic Systems</u>	X	X	X
<u>Wildlife</u>			
Deer	X	X	
Feral Hogs	X	X	
<u>Cropland</u>		X	
<u>Livestock</u>			
Sheep and Goats	X	X	
Horses	X	X	
Cattle	X	X	
<u>Oil and Gas Production</u>			X
<u>Urban Runoff</u>	X	X	X
<u>Wastewater Treatment Facilities</u>	X	X	

# O&E Logo Development

- Outreach and Education Work Group
- Surveyed the Partnership to determine knowledge of the watershed and future vision
- Used survey results to develop several logos
- Partnership voted on the final two logos
- Logo is used on all materials and projects for the Partnership





# plum creek watershed partnership

# Plum Creek Watershed Protection Plan

Developed by

THE PLUM CREEK WATERSHED PARTNERSHIP

February 2008



- HOME
- CONTACT
- PROJECT OVERVIEW
- MEETINGS
- WATER QUALITY
- NEWSLETTER
- PUBLICATIONS
- WATERSHED PROTECTION PLAN
- LINKS
- PARTNERS
- FORUM

### watershed protection plan

Download the Entire Draft of Plum Creek Watershed Protection Plan  
**Updated 11/29/2007**

- [Microsoft Word Document](#) (54.7 MB)
- [Portable Document Format](#) (16.5 MB)

For dial-up users, download sections of the draft in separate PDFs, each under 1MB.

- [Table of Contents, Introduction and Background](#) (710 KB)
- [Water Quality and Watershed Partnership](#) (877 KB)
- [Methods of Analysis](#) (345 KB)
- [Estimate of Pollutant Loads and Required Load Reductions](#) (529 KB)
- [Pollutant Sources A](#) (730 KB)
- [Pollutant Sources B](#) (829 KB)
- [Management Measures](#) (243 KB)
- [Urban Management Measures](#) (244 KB)
- [Wastewater Management Measures](#) (72 KB)
- [Agricultural Management Measures](#) (140 KB)
- [Wildlife and Feral Hog Management Measures](#) (45 KB)
- [Outreach and Education](#) (686 KB)
- [Measures of Success](#) (254 KB)
- [Implementation Program](#) (349 KB)
- [Appendix A - D](#) (146 KB)
- [Appendix E - F](#) (1051 KB)
- [Appendix G - I and References](#) (881 KB)



# City Council and County Commissioners Court Meetings

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- Project Updates
- Discussion of Proposed Management Measures
- Discussion of how to implement the management measures
- Answer any Questions
- Requested a Letter of Support for the Watershed Protection Plan



# Elementary School Water Quality Program 2006-2007

- Water quality education and monitoring at 6 elementary schools in the watershed reaching 760 4<sup>th</sup> and 5<sup>th</sup> graders
- The Partner Schools include:
  - Negley Elementary
  - Tobias Elementary
  - Hemphill Elementary
  - Science Hall Elementary
  - Plum Creek Elementary
  - Clear Fork Elementary
  - Luling Shanklin Elementary



# School Water Quality Program 2007-2008

- Water quality education and monitoring at 6 elementary schools in the watershed continued reaching over 700 4<sup>th</sup> and 5<sup>th</sup> graders
- Lockhart and Luling:
  - Service Learning Grant
  - Middle & High Schools
  - Older kids taught younger
  - Increased Monthly Sites
  - High School – River Pals



# Stormwater BMP Field Demonstrations

- Coordinated with TCEQ to conduct two Stormwater Mulch Tube BMP Field Demonstrations
- Kyle downtown road improvements project
- Lockhart business Park along drainage



# Ag Waste Pesticide Collection Days

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June 5, 2007 – Luling

- 87 Participants
- 31,852 lbs of waste
- 239 Batteries
- 2 drums of oil filters
- 1000 gal of oil
- Containers:
  - 621 – 1 gallon
  - 174 – 2 ½ gallon
  - 42 – 30 gallon



# Steering Committee Meeting Discussions

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- Discuss the nine elements at first mtg.
  1. Clearly explain the water quality issue & data
  2. Discuss all of the potential sources
  3. Explain what modeling approach will be used to determine load reductions
  4. Explain results of load reduction estimates
  5. Discuss appropriate management measures
  6. Discuss appropriate O&E
  7. Discuss technical and financial assistance needed
  8. Discuss implementation schedule, set of criteria for load reductions, and interim & measurable milestones
  9. Finally discuss monitoring component to determine effectiveness of the plan

# Status of the Plan

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## The Nine Elements

- ✓ Identification of the causes.
- ✓ Estimate of needed load reductions.
- ✓ Description of management measures.
- ✓ Estimate of technical and financial assistance needed to implement the plan.
- ✓ Information/education component to enhance public understanding.
- ✓ Schedule for implementation.
- ✓ Description of interim, measurable milestones.
- ✓ Set of criteria to determine whether load reductions are being achieved.
- ✓ Monitoring component to evaluate effectiveness of implementation.

# Support Letters



(512) 398-3461 • FAX (512) 398-5103  
P.O. Box 239 • Lockhart, Texas 78644

OFFICE OF THE HAYS COUNTY JUDGE



**ELIZABETH 'LIZ' SUMTER**

111 E. San Antonio St., Suite 300 • San Marcos, Texas 78666  
Phone: 512/393-2205 • Fax: 512/393-2282 • E-mail: lizsumter@co.hays.tx.us



**Hays County Soil and Water Conservation District No. 351**  
501 Broadway, Suite B - San Marcos, Texas 78666 - Phone (512) 392-4050

**H.T. Wright**  
County Judge  
512-398-1808

**Lori Rangel-Pompa**  
County Treasurer  
512-398-1800

**James E. "Sonny" Rougeou**  
County Auditor  
512-398-1801



**Caldwell County Courthouse**

110 South Main Street  
Lockhart, TX 78644  
FAX: 512-398-1828

**Tom Bonn**  
Commissioner, Precinct 1

**Charles Bullock**  
Commissioner, Precinct 2

**Neto Madrigal**  
Commissioner, Precinct 3

**Joe Ivan Roland**  
Commissioner, Precinct 4

February 27, 2008

Plum Creek Watershed Partnership  
C/O Texas AgriLife Extension Service  
2474 TAMU, 355A Heep Bldg.  
College Station, Texas 77843-2474

Dear Plum Creek Watershed Partnership,

The Plum Creek Watershed Protection Plan represents a significant step



**CITY OF KYLE**

100 W. Center • P.O. Box 40 • Kyle, Texas 78640 • (512) 262-1010 • FAX (512) 262-3800



**City of Luling**

509 E. Crockett • Luling, Texas 78648 • Phone: (830) 875-2481 • Fax: (830) 875-2038



**Caldwell-Travis Soil and Water Conservation District #304**  
1400-D Hwy. 20 East - Lockhart, TX 78644 - Phone: (512) 398-2121

**THE SAN MARCOS RIVER FOUNDATION**

GENERAL OFFICE  
933 East Court Street  
Seguin, Texas 78155  
Phone: 830-579-5822  
830-415-5622  
Fax: 830-579-9718

BUDA WASTEWATER  
RECLAMATION  
PLANT  
575 County Road 256  
Buda, Texas 78610  
Phone: 512-512-0526  
Fax: 512-512-0520

COLETO CREEK PARK  
AND RESERVOIR  
P.O. Box 68  
Finnin, Texas 77960  
Phone: 501-575-6566  
Fax: 501-575-2367

LAKE WOOD  
RECREATION AREA



GUADALUPE-BLANCO RIVER AUTHORITY

February 1, 2008

Nikki Dictson  
Texas AgriLIFE Extension Service  
355A Heep Center  
2474 TAMU  
College Station, TX 77843-2474

# Through These Partnerships the Plan was Completed!

- January 2008 concluded the comment period
- February 19, 2008 the Steering Committee signed and adopted the Plum Creek Watershed Protection Plan





Thanks!

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