

# Update on Locally Driven Watershed Protection Planning in the Plum Creek Watershed

---

Guadalupe River Basin 2008 Clean Rivers Program

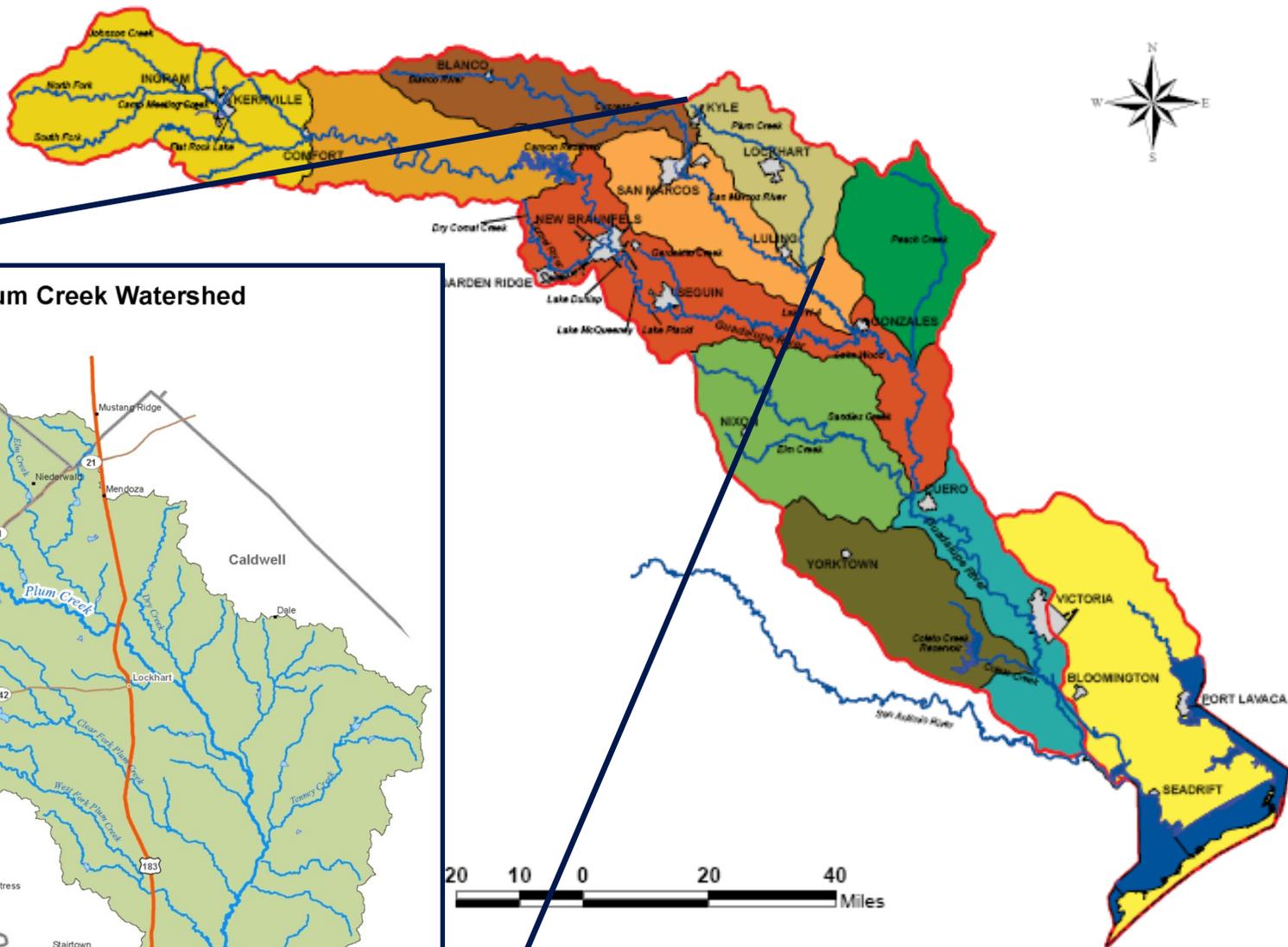
Nikki Dictson, Texas AgriLife Extension Service

# Watershed Protection Plan

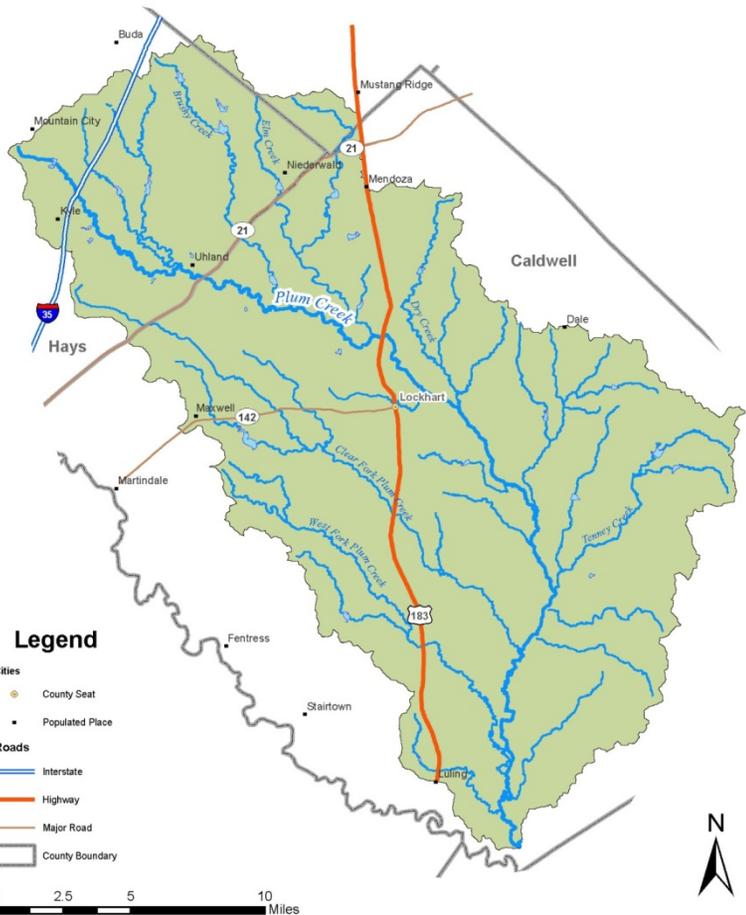
- Texas AgriLife Extension Service partnered with the Texas State Soil and Water Conservation Board to pilot a watershed protection plan project
- The Wharton Regional Watershed Coordination Steering Committee facilitated by the TSSWCB, selected Plum Creek in December 2005
- The nine element watershed protection plan was to be developed by local stakeholders in the watershed in 18 – 24 months



# GUADALUPE RIVER BASIN WATERSHEDS



## Plum Creek Watershed



# Plum Creek Watershed Partnership Meetings

- April 2006 – Three Public Meetings in Watershed (116)
- May 9, 2006 – First Steering Committee Meeting (49)
- June 20, 2006 – Steering Committee Meeting/Work Groups (42)
- July 2006 – Five Work Group Meetings
- August 10, 2006 – Steering Committee/Technical Advisory Group Meeting (45)

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



**Steering  
Committee**

**Watershed  
Stakeholders**

**Technical  
Advisory Group**

**Work Groups**

Outreach &  
Education

Agriculture  
Nonpoint  
Source

Urban  
Stormwater &  
Nonpoint  
Source

Wastewater &  
Industry

Water Quality &  
Habitat

# Major Tasks

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

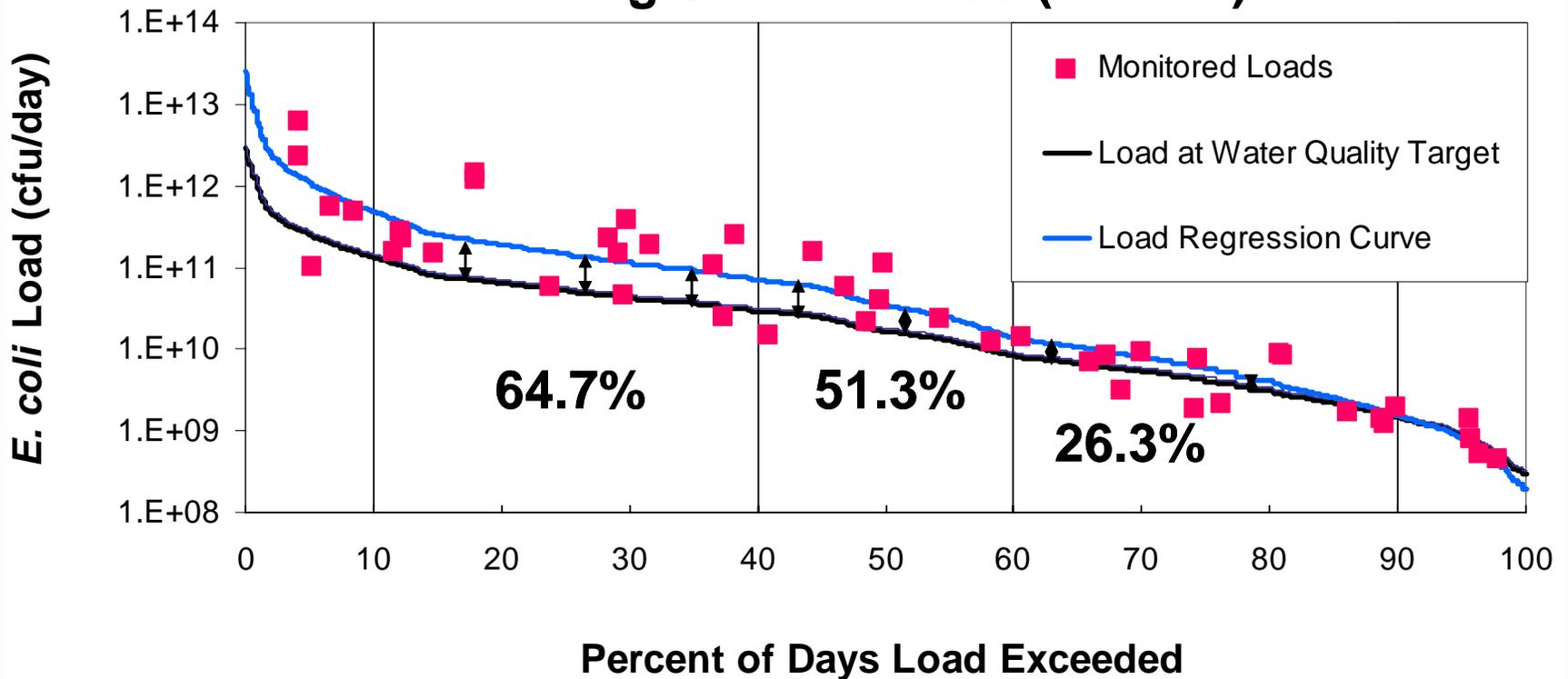
# Assessment Tools

- TAMU team from Spatial Sciences Lab and Biological and Agricultural Engineering Dept.
- Load Duration Curves
- Spatially-explicit Geographic Information System (GIS) methodology – SELECT
- Soil and Water Assessment Tool - SWAT



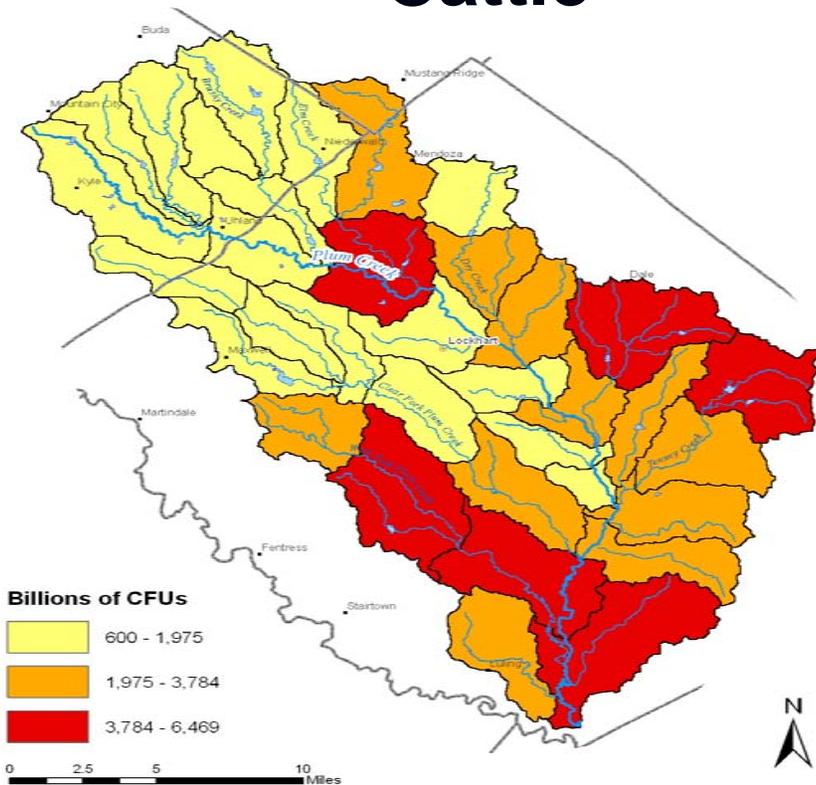
# Bacteria LDC - Uhland

## *E. coli* Load and Reductions Monitoring Station 17406 (Uhland)

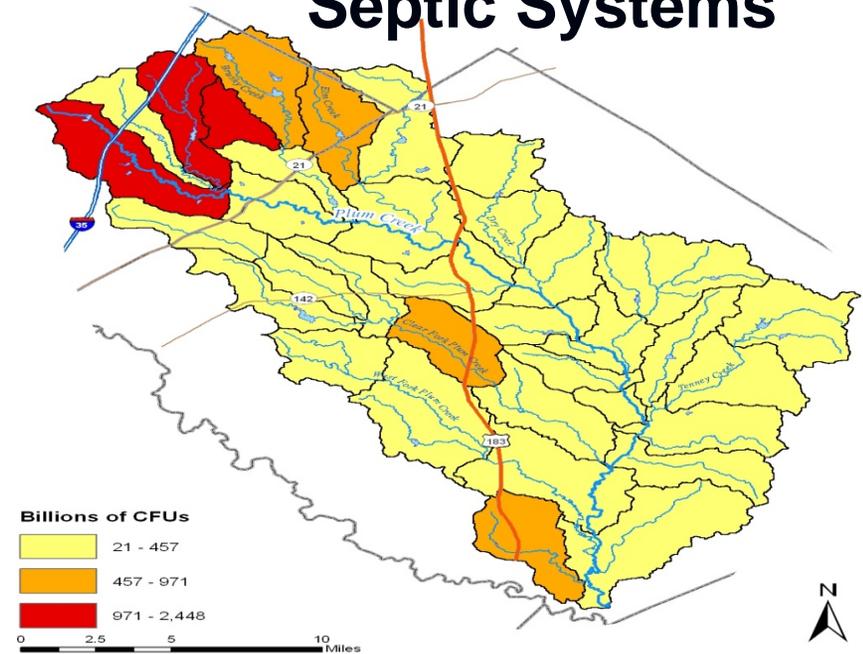


# Average Daily Potential *E. coli* Load

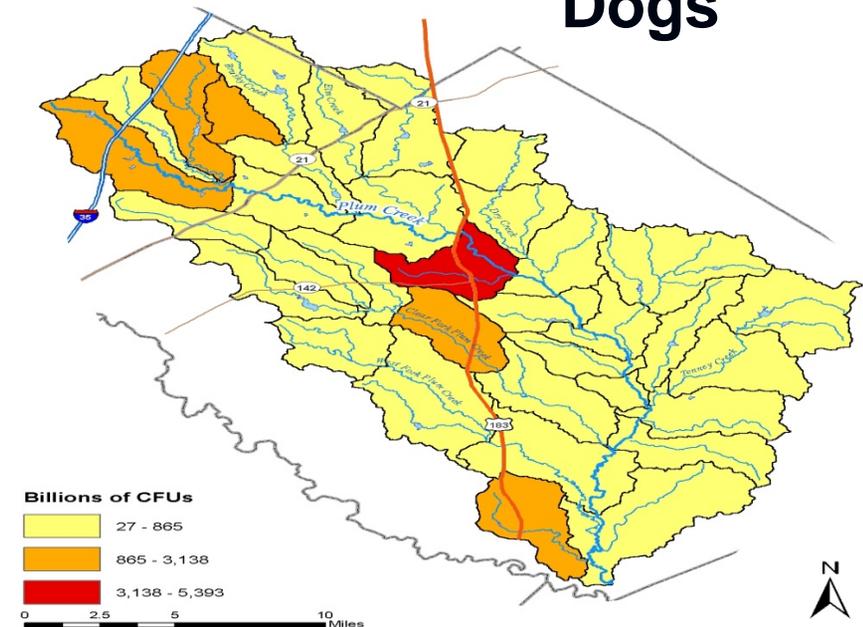
## Cattle



## Septic Systems



## Dogs



# Status of the Plan

## 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.

# Public Comment

- Articles in the papers, newsletters, and email
- Open Public Meetings in the watershed at Luling (Jan. 7), Kyle (Jan. 10) and Lockhart (Jan. 11) from 10 am – 3 pm
- Received verbal and/or written comments during the comment period

# Plum Creek WPP

## Plum Creek Watershed Protection Plan

Developed by

THE PLUM CREEK WATERSHED PARTNERSHIP

February 2008



pcwp

plum creek watershed partnership

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)

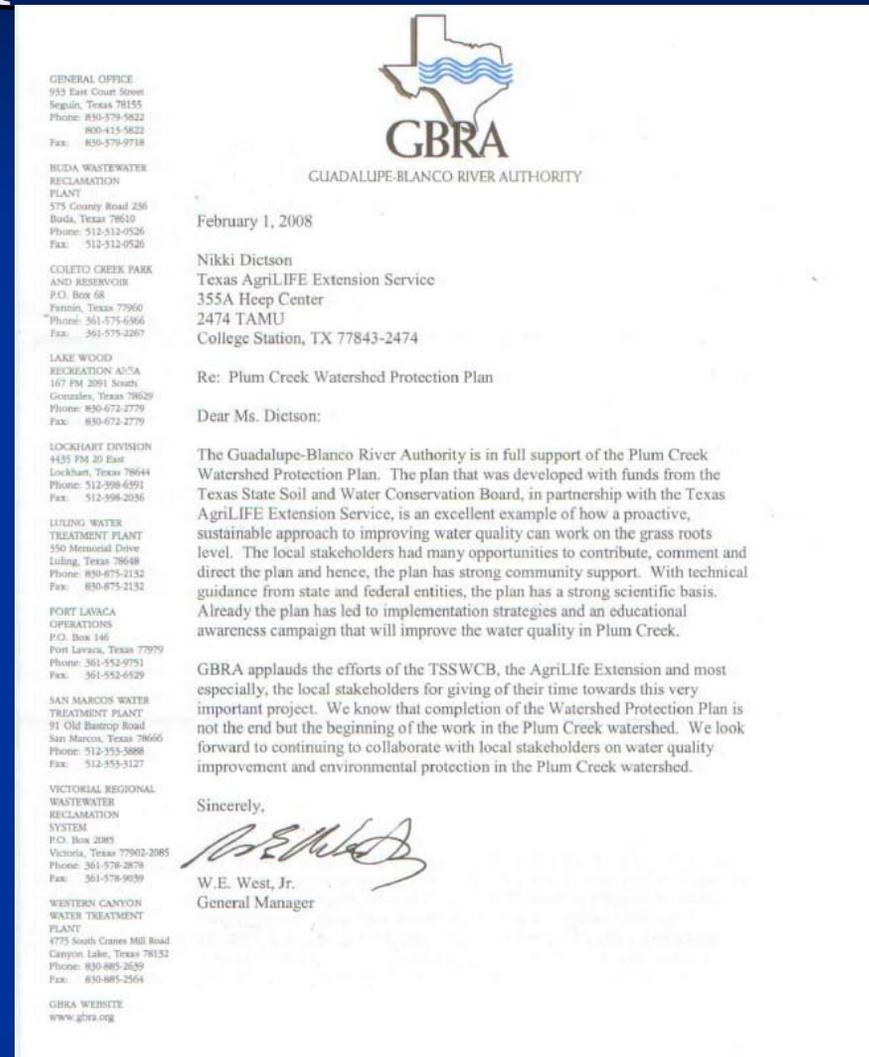


# Plum Creek WPP

- On February 19, 2008 the Steering Committee signed and adopted the Plum Creek Watershed Protection Plan
- GBRA sponsored a wonderful dinner for the Steering Committee in Lockhart
- Steering Committee members received tokens of appreciation
- GBRA, TSSWCB, and TCE all said a few words of thanks

# Letters of Support for the Plan

- GBRA
- City of Kyle
- City of Lockhart
- City of Luling
- Hays County
- Caldwell County
- San Marcos River Foundation



# Exciting Watershed Highlights

- Additionally selected by the Texas Tri-Agency Water Quality Team (EPA, TSSWCB, and TCEQ) as a WPP pilot project
- Water quality education and monitoring at 6 elementary schools in the watershed reaching 760 4<sup>th</sup> and 5<sup>th</sup> graders
- Coordinated with TCEQ to conduct 2 Stormwater BMP Demonstrations and an Ag. Waste Collection Day
- Assisted the City of Kyle with a 319 Grant Proposal for Urban BMPs, planning and Outreach and Education



# Exciting Watershed Highlights Continued

- GBRA Received \$150,000 in September for water quality outreach and education from a TCEQ Clean Water Act 106 funding
  - Watershed Protection Campaign Brochure
  - Marketing and Outreach Plan
  - NEMO – Urban Growth Workshops
  - 4 Online Modules- Stormwater Mgmt; Wastewaters Treatment Plants; OSSFs; and Fats, Oils, and Grease
  - Septic System Workshops
  - Illegal Dumping/Litter Campaign
  - TCEQ Fats, Oils, and Grease Workshops and Site Assessment Visits



Thanks!

Nikki Dictson

2474 TAMU

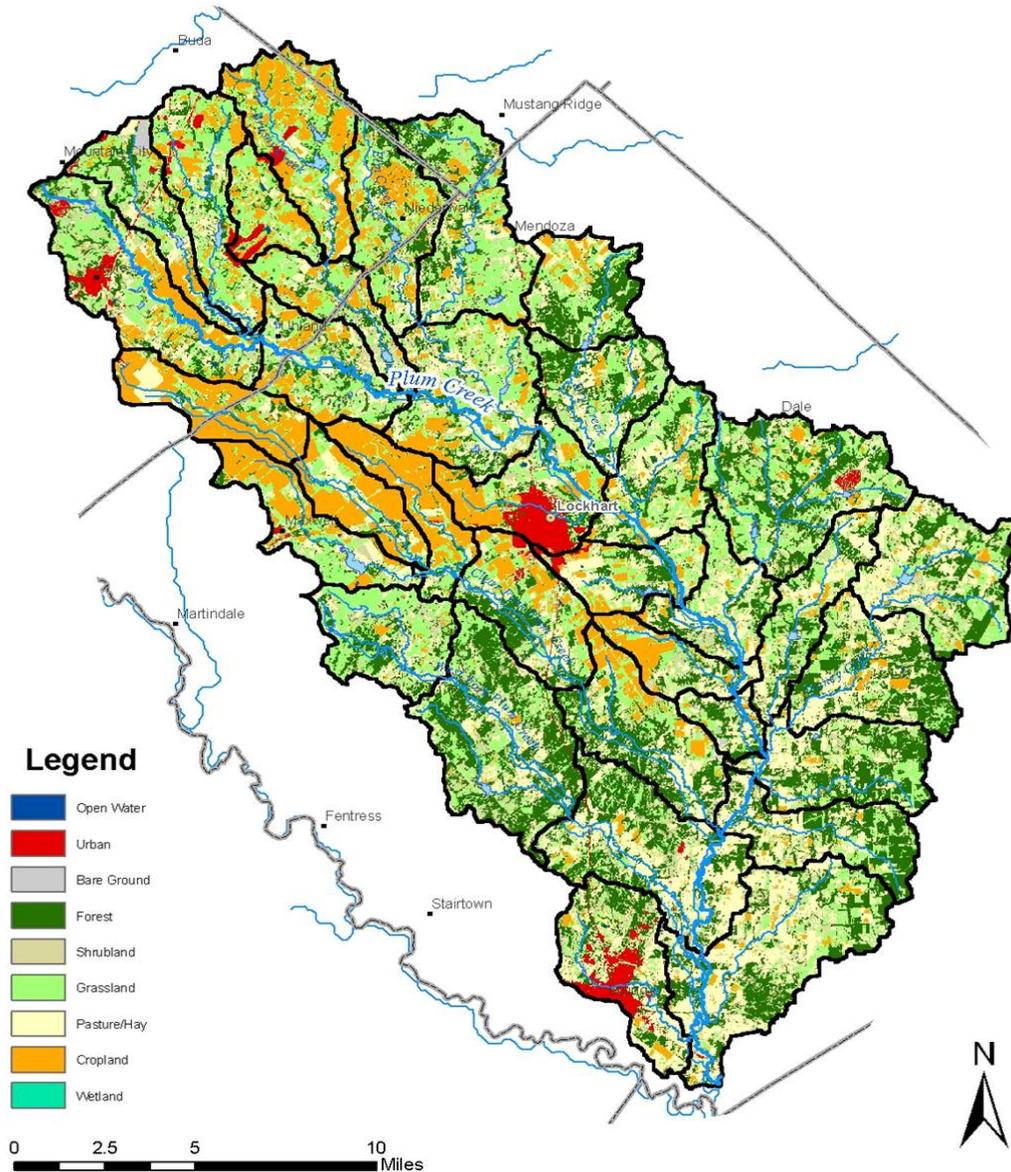
College Station, Texas 77845

n-dictson@tamu.edu

979-458-3478

<http://pcwp.tamu.edu>

# Plum Creek Land Use



# Watershed Tour

- On July 27, 2006 from 9:00 am to 4:00 pm.
- 64 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

