

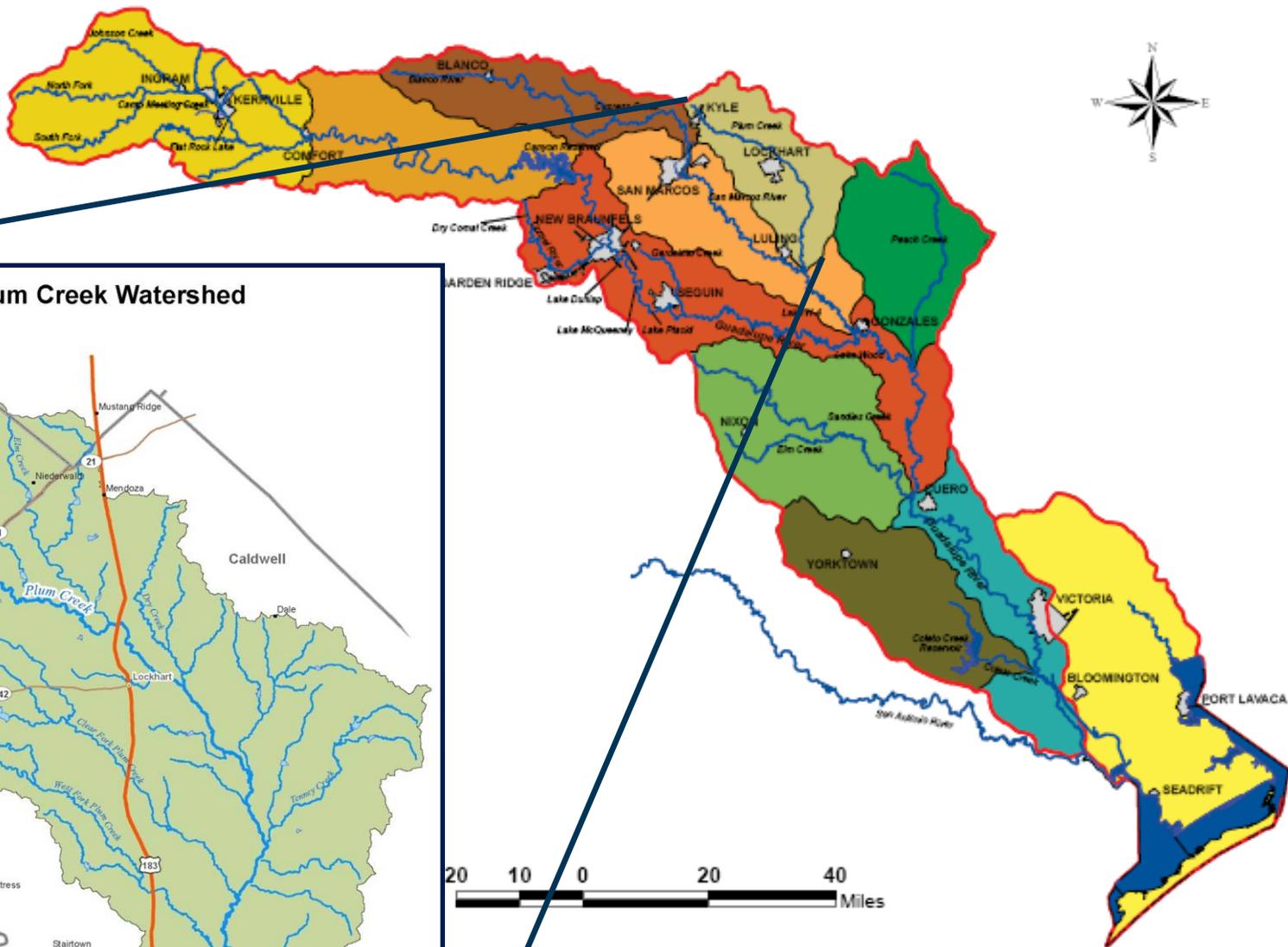


# Plum Creek Watershed Protection Plan Implementation Phase Update

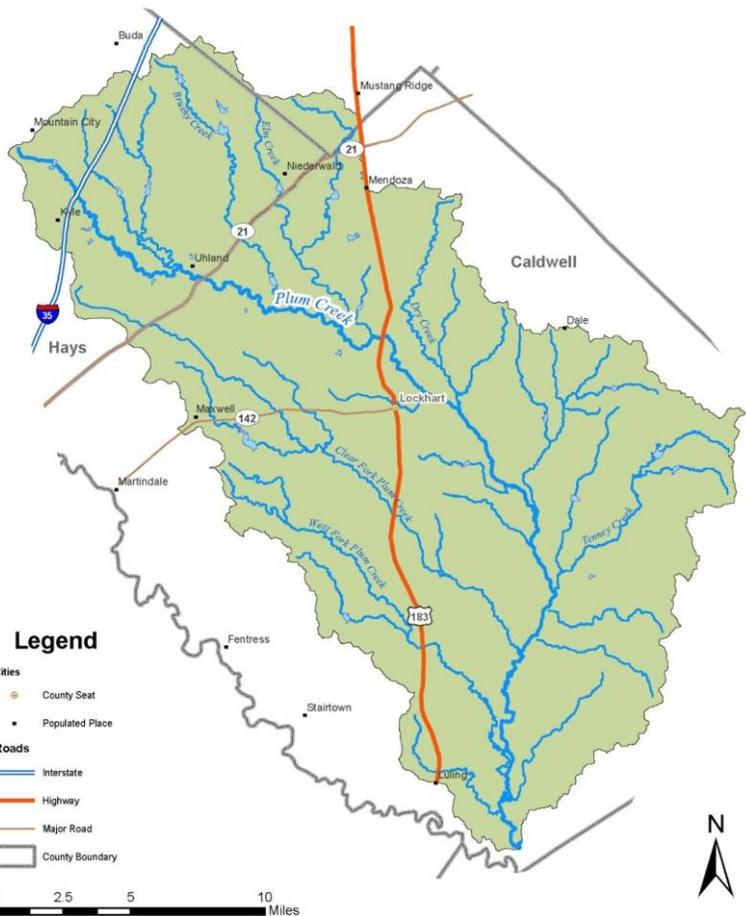
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Guadalupe River Basin CRP Meeting  
March 25, 2010

# GUADALUPE RIVER BASIN WATERSHEDS



## Plum Creek Watershed



# Plum Creek Watershed

- Bacteria impairment and concerns for nutrients
- Watershed Protection Plan was completed in February of 2008
- Received the EPA Region 6 Letter that WPP satisfies EPA's requirements in July 2009
- Implementation Efforts are ongoing in the watershed

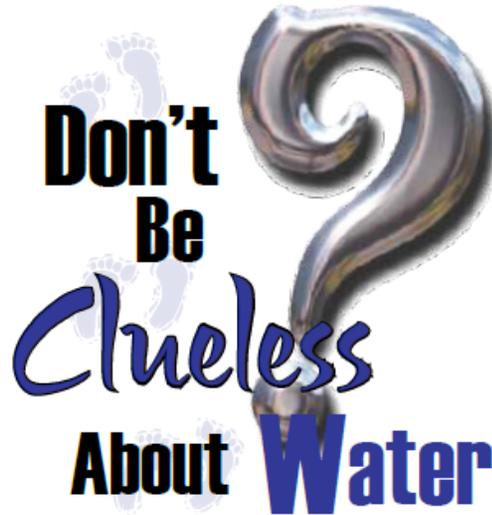
# Taking Charge of Water Quality in Plum Creek - 106 Grant Project with TCEQ is Completed

- Received \$150,000 in September 2007
  - Watershed Protection Campaign Brochure
  - NEMO – Urban Growth Workshops
  - 4 Online Modules- Wastewater Treatment Process; OSSF Module; Fats, Oils, and Grease Module, and Stormwater Management Module
  - Septic System Workshops for practitioners and home owners
  - Illegal Dumping/Litter Campaign
  - Community Stream Cleanups



# Printed 5,000 Plum Creek Brochures

## Created a template



### Are You Helping to Protect Your Watershed?

When it comes to pollution, what comes around goes around (and around and around) the watershed. Your actions can leave footprints... footprints that can affect others downstream.

Learn to say "No" to common practices that contribute to pollution in the Plum Creek Watershed of the Guadalupe River Basin -- together, we can preserve it as one of the most unique in Texas.

**Watershed Awareness**

**Footprints Inside the House**

**Footprints Outside the House**

**Clues Underground**

**Clues Above the Ground**

**Stewardship: Top Ten Things You Can Do to Show You Care**

**Who's In The Know and Can Tell You More**



# NEMO - Managing Urban Growth: Quality of Life and Environmental Issues

- The trainings were FREE and lunch was provided by Guadalupe-Blanco River Trust
- Extension Specialist, John Jacobs was the featured speaker and is the Texas NEMO Coordinator
- The first NEMO training was held in February 2008 at the Texas Disposal System Pavilion
- The second training was held in May 2008 at The Fountains with over 40 attendees

# Onsite Wastewater Treatment System Workshops

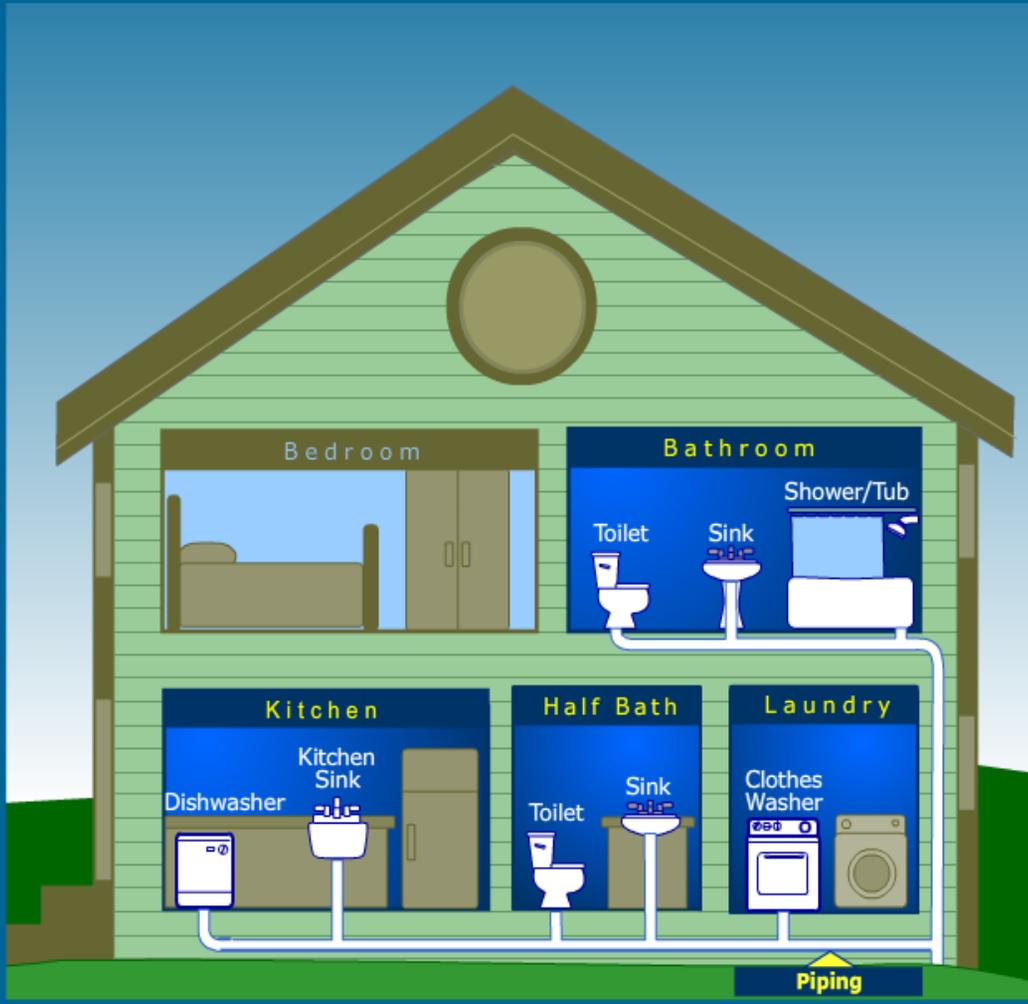
- The following workshops were conducted by Dr. Bruce Lesikar in San Marcos in 2009
  - May 2009 - Homeowner training on Aerobic Treatment Systems
  - June 2009 - Homeowner training on Onsite Wastewater Treatment Systems
  - July – Three day Train the Trainer Workshop on Aerobic Treatment Systems
  
- The following workshops were conducted by Dr. Bruce Lesikar in Lockhart in 2009:
  - May 2009 - An Advanced Training for OSSF Practitioners
  - June 2009 - A Homeowner Training on Aerobic Treatment Systems



# OSSF Online Educational Module



## HOW A SEPTIC SYSTEM WORKS



### Wastewater Source (House)

The source of wastewater is the domestic water used in homes, schools or businesses that the treatment system serves. Domestic wastewater is water discharged from plumbing fixtures, appliances, toilets, baths, laundry and the dishwasher. Wastewater is typically 99.9% liquid.

**Click on the home water applications to learn their uses and misuses.**

**Overview**

**To Septic Tank**

# OSSF Online Educational Module

septic11.swf (application/x-shockwave-flash Object) - Mozilla Firefox

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## HOW A SEPTIC SYSTEM WORKS



To House

### Conventional Septic System Pretreatment

In the pretreatment portion of a septic system, many of the contaminants are removed from the wastewater in order to prepare it for final treatment and discharging into the environment. Contaminants in the wastewater include harmful bacteria that can cause illness, as well as nitrogen and phosphorus that can stimulate algae growth in water bodies.

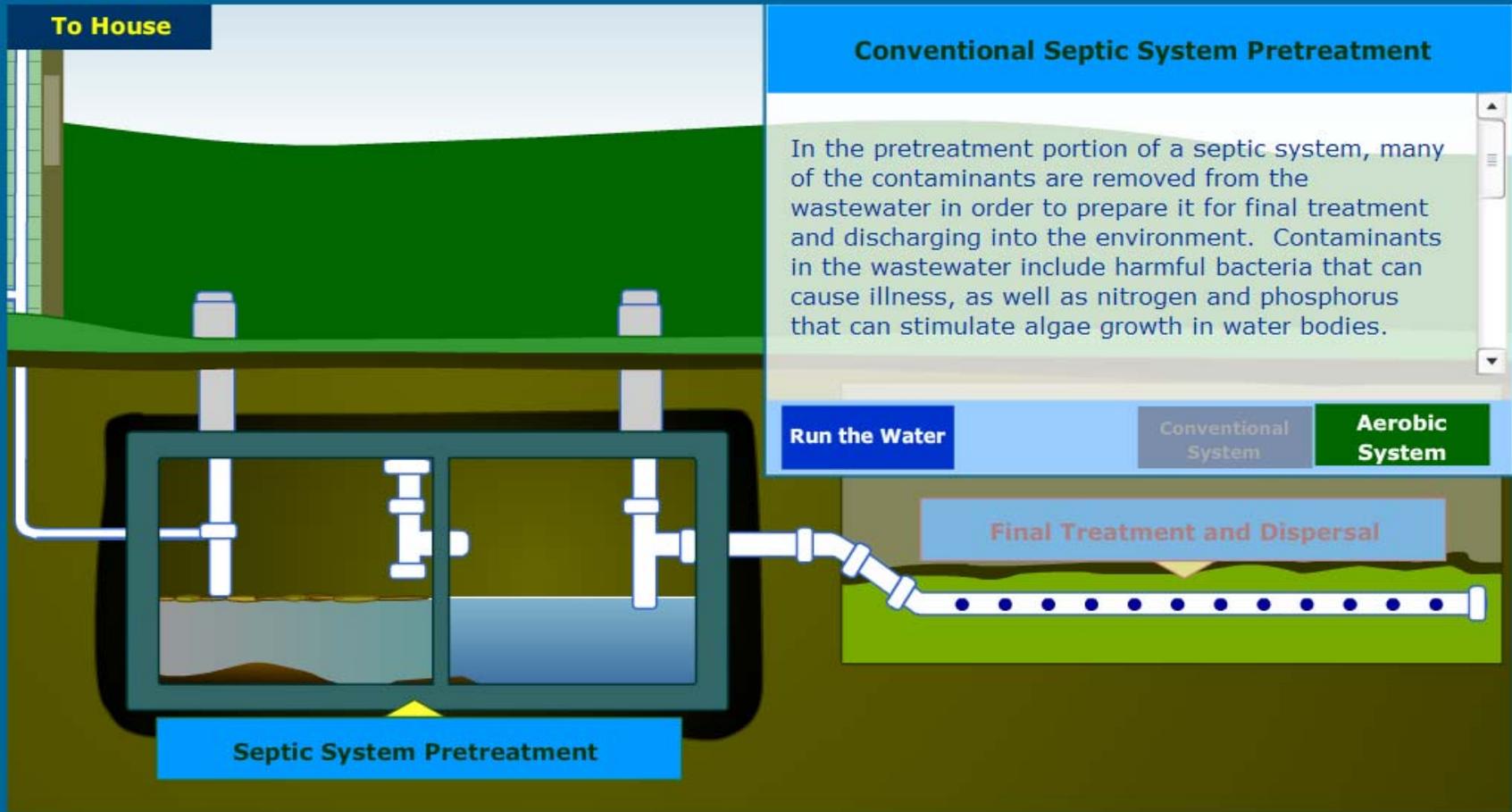
Run the Water

Conventional System

Aerobic System

Final Treatment and Dispersal

Septic System Pretreatment



# OSSF Online Educational Module

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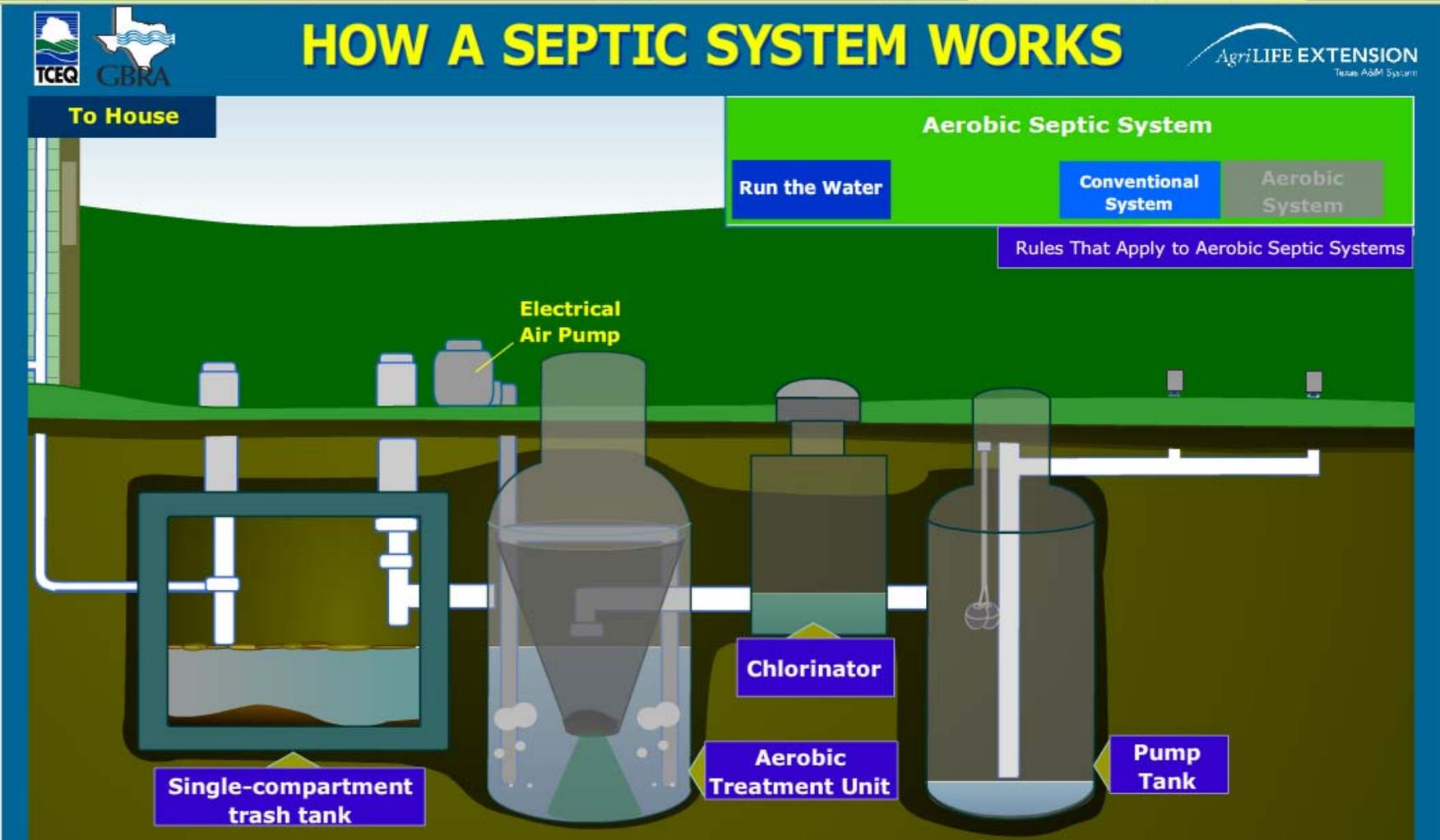
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Don't  
Be  
Clueless  
about the  
Wastewater  
Treatment Process



Understand *how* the wastewater treatment process works to protect the health and safety of you, your community and the environment.

# FOG Online Educational Module



HOUSE 1

GARAGE

HOUSE 2

LIFT STATION

TREATMENT PLANT

FOOD SERVICES 1

FOOD SERVICES 2

INTRO

Help Inspector Clued-N find the villainous Oyl E. Fatt. Click on each of the listed locations above to find out where he is hiding!



# PROPER DISPOSAL OF RESIDENTIAL WASTE



RETURN TO CITY

# Storm Water Module

shell-guadalupe - Mozilla Firefox

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http://www.stephenrekstad.com/guadalupe/shell.html

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**MUNICIPAL EMPLOYEES:**  
Preventing Storm Water Pollution

**Streets & Drainage  
Maintenance**

Continue

STREETS  
AND DRAINS

PARKS  
AND REC

FLEET  
UPKEEP

STORAGE  
AND SPILLS



# Lockhart and Kyle Stream Cleanup & Environmental Fairs in 2009



# Taking Charge of Water Quality in Plum Creek - 106 Grant Project with TCEQ

➤ The 2-year grant is completed!

- Watershed Protection Campaign Brochure – 5,000
- NEMO – Urban Growth Workshops- 2 in 2008
- 4 Online Modules- Wastewater Treatment Process; OSSF; FOG, and Storm Water Management
- OSSF Workshops – 2 in 2008 and 5 in 2009
- Illegal Dumping/Litter Campaign – 9 sites in 2008, 9 sites in 2009



# Texas Watershed Steward Training

- 1<sup>st</sup> TWS was held in December 2007 in Kyle
  - 42 Participants
- 2<sup>nd</sup> TWS training August 2008 in Luling
  - Over 85 Participants
- Great remarks were received in the surveys from both trainings



# Plum Creek Implementation Grants

- TSSWCB 319 Proposal for outreach and education, project facilitation, Agricultural practices and Feral Hog Management Education
- City of Kyle's TCEQ 319 Implementation Project is underway, Monitoring QAPP is being developed and they recently held another Community Cleanup in February
- Cities of Lockhart and Luling have TCEQ CWA 319 Implementation projects getting started



# Plum Creek Feral Hog Education

- Chancey Lewis has been hired for the Wildlife Extension position in the watershed
- Online feral hog reporting system
- Texas AgriLife Extension held the annual Feral Hog Workshop in February in Luling
- Attendance at these events is typically around 300



## Box Traps for Capturing Feral Hogs

Chancey Lewis, Matt Berg, James C. Cathey, Jim Gallagher, Nikki Dictson, and Mark McFarland  
Texas AgriLife Extension Service  
The Texas A&M University System

Rising feral hog numbers pose a threat to agriculture and water quality in the Plum Creek Watershed and across the state. As part of the toolbox for feral hog management, box traps should be considered among approaches to reducing feral hog numbers and impacts. While they are not the best choice to remove large numbers of animals at a time, box traps are useful as a pinpoint control effort – a tool to remove a small number of hogs or to focus on a relatively small, defined area – and can be a first strike in combination with larger traps and other techniques.

### Trap Placement

When deciding where to locate a box trap for capturing feral hogs, identify creeks, ponds, and other watering locations, particularly if these are near bedding or feeding areas. Feral hog trails are ideal locations for trap placement. Set the trap upwind of an area frequented by hogs so animals will be attracted to bait in the trap. A game camera can help determine hog behavior in the area and identify optimal locations for trap placement.

### Trap Dimensions and Gate Styles

Box traps come in a variety of designs and shapes. Most are constructed of livestock panels with steel pipe or angle iron frames. Most traps are built by the user, and consequently there exists a tremendous variety of traps that differ in size, portability, door configuration, flooring and roofing. In some areas, ready-to-use box traps and different styles of head gates are available for purchase.

A common design is the 4' x 8' heavy duty cage (Fig. 1). Trap height is typically between 3' and 4', and a top is recommended to prevent hogs from crowding in the corners and climbing out. Fully enclosed traps with a top and a floor may allow the trapper to transport a live hog without removing it from the trap. However, all box traps, particularly those without floors, require T-posts to anchor the trap, adding materials that may dissuade a hog from entering and driving up the total cost of the trap.

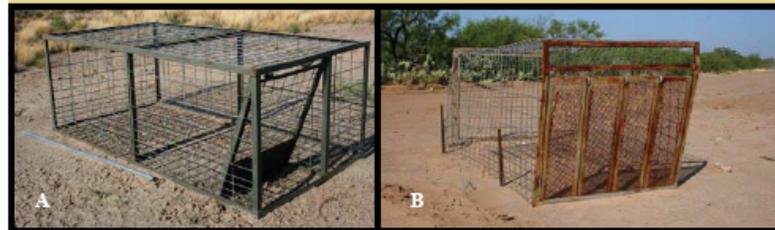


Figure 1. Box traps vary in both size and construction. A common design includes a 4' x 8' cage built with durable materials (A). The best box traps are both effective and low in cost. Many box traps are fashioned with materials readily available to the landowner (B).

- Lewis, C. D., B. McFarland, 2019. AgriLife Extension Service.
- Lewis, C. D., B. McFarland, 2019. AgriLife Extension Service.
- Lewis, C. D., B. McFarland, 2019. AgriLife Extension Service.
- Lewis, C. D., B. McFarland, 2019. AgriLife Extension Service.
- Lewis, C. D., B. McFarland, 2019. AgriLife Extension Service.
- Lewis, C. D., B. McFarland, 2019. AgriLife Extension Service.
- 2 more on the way!

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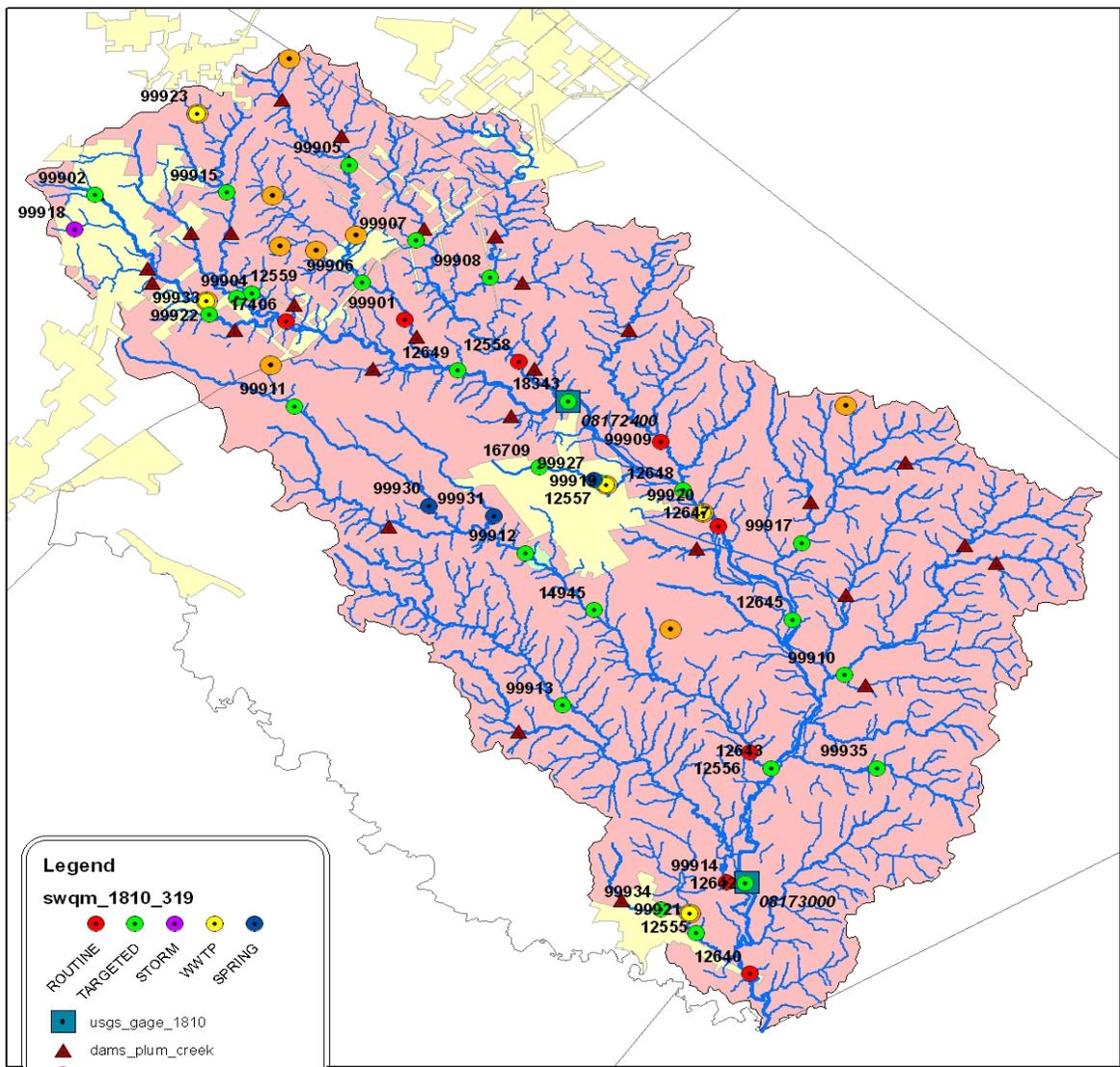
# Feral Hog Abatement Project

- Enrolled 236 different properties in the Plum Creek Watershed
  - Range from 8-1,195 acres
  - Average property size was 128 acres
- Total 30,180 acres in cooperative agreement with Wildlife Services
- Properties mostly along portions of Clear Fork and West Fork
- Flights in January, February, and March

# Targeted Monitoring

- Developed by Plum Creek Watershed Partnership, TSSWCB, GBRA and TCE
- Funded by TSSWCB to assist with source identification and WPP development
- Six types of surface water quality monitoring will be conducted

Routine, targeted, stormflow, 24hr DO, effluent, and spring flow

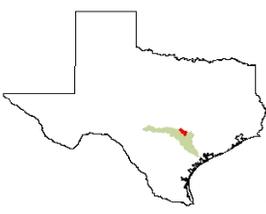


**Legend**

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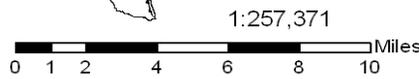
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- TARGETED
- STORM
- WWTP
- SPRING

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- travis\_citylimits
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- counties
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## Plum Creek Watershed

Guadalupe River Basin - Segment 1810



April 27, 2007

**TSSWCB**