Texas Watershed Stewards:

A WATER RESOURCE TRAINING CURRICULUM

J. Peterson, M. McFarland, N. Dictson, M. Berg, D. Boellstorff
Texas AgriLife Extension Service

Texas Watershed Coordinator Roundtable Meeting
Temple, TX
July 8, 2009

AgriLIFE EXTENSION
Texas A&M System

Soil Water
TSSWCB

TEXAS Watershed Steward

Texas Watershed Steward Program

- Introductory training in the fundamentals of watersheds and watershed management.
- Target audience: individuals representing all stakeholder groups…
  - **Agriculture**
  - **Urban**
  - **Business/industry**
  - **City/county officials and personnel**
  - **Landowners, homeowners**

TWS Program Curriculum

5

Community-Driven Watershed Protection and Management

4

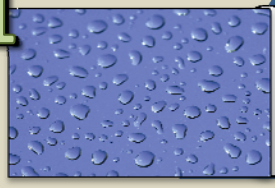
Managing To Improve Watershed Function

3

An Overview of Watershed Impairments

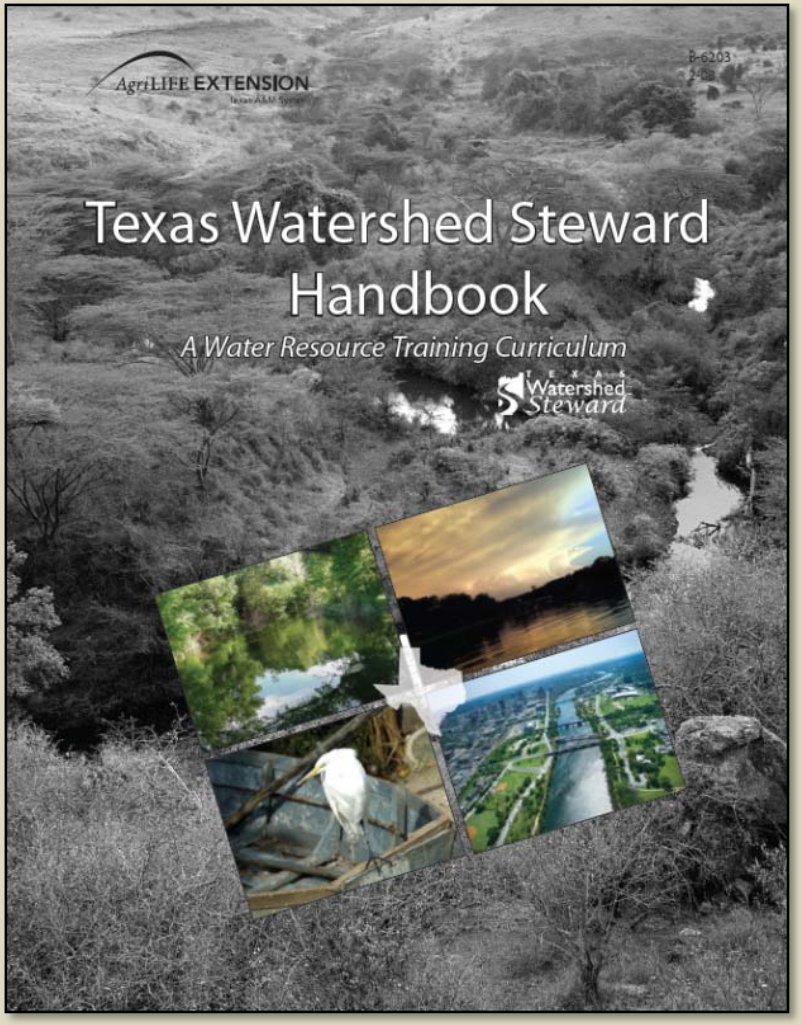
2

An Overview of Watershed Functions

1 

Program Introduction

TWS Curriculum Handbook

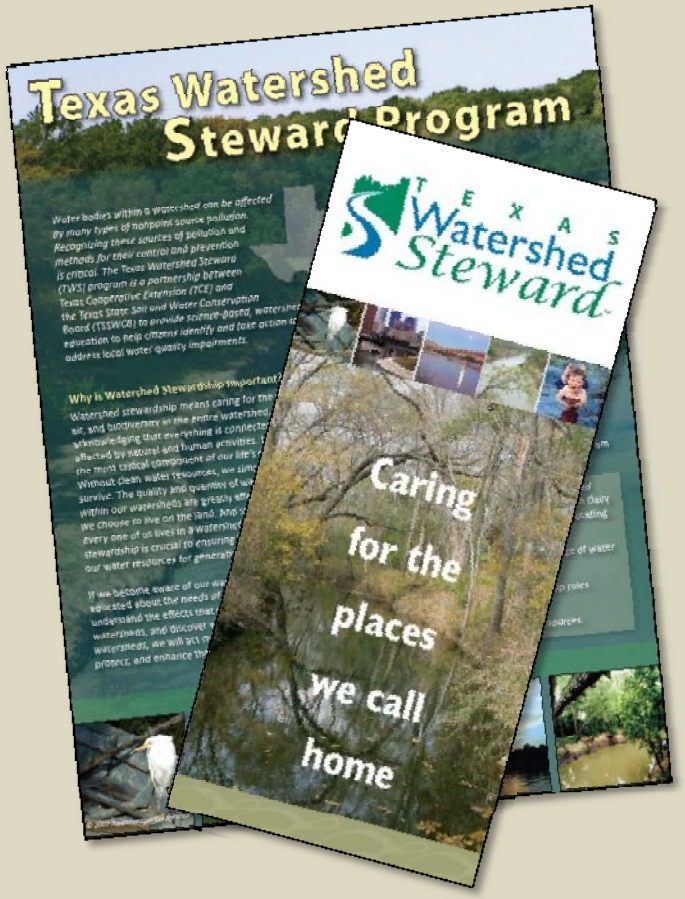


TWS Educational Training

- 1-day training (8 hours)
- PowerPoint
- Facilitated discussion
- Interactive ‘stations’
  - **Enviroscape**
  - **NPS containers**
  - **Rainfall simulator**
  - **WQ monitoring equipment**
  - **Macroinvertebrate ID**
  - **Google Earth…**

Program Marketing

- Media campaign (3 months in advance)
  - **Newspapers**
  - **Local/regional magazines Coops, Agriculture)**
  - **CEA, MG, MN, HOA newsletters**
  - **TV/radio**
  - **Word of mouth**
- Local events
  - **Cleanup Events**
  - **Field Days**
  - **Conferences**

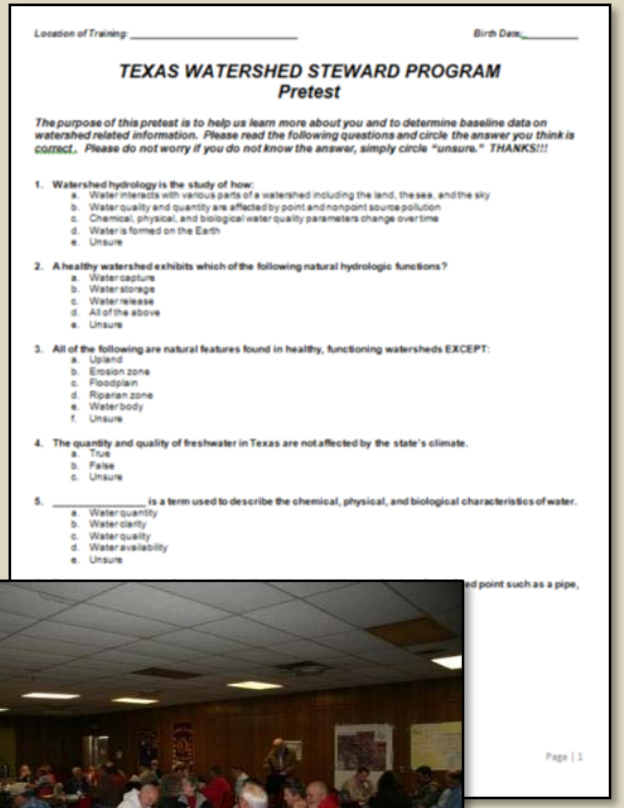


Our "Carrots"

- **FREE** (for now, anyways)
- Educational credits:
  - **Certified Planners (7)**
  - **Professional Engineers (7)**
  - **Certified Crop Advisors (7)**
  - **TX Certified Teachers (7)**
  - **Floodplain Managers (3)**
  - **Pesticide Applicators (3)**
- Lots of free stuff…

Program Evaluation

- 2-phase evaluation approach:
  1. **Pre-test/post-test**
  2. **6 mo. delayed post-test**
- To evaluate:
  - **Knowledge gained**
  - **Satisfaction with program**
  - **"Intentions to change"**



Location of Training: _____ Birth Date:_____

TEXAS WATERSHED STEWARD PROGRAM
Pretest

The purpose of this pretest is to help us learn more about you and to determine baseline data on watershed related information. Please read the following questions and circle the answer you think is correct. Please do not worry if you do not know the answer, simply circle "unsure." THANKS!!!

1. Watershed hydrology is the study of how:
   a. Water interacts with various parts of a watershed including the land, the sea, and the sky
   b. Water quality and quantity are affected by point and nonpoint source pollution
   c. Chemical, physical, and biological water quality parameters change over time
   d. Water is formed on the Earth
   e. Unsure
2. A healthy watershed exhibits which of the following natural hydrologic functions?
   a. Water capture
   b. Water storage
   c. Water release
   d. All of the above
   e. Unsure
3. All of the following are natural features found in healthy, functioning watersheds EXCEPT:
   a. Upland
   b. Erosion zone
   c. Floodplain
   d. Riparian zone
   e. Water body
   f. Unsure
4. The quantity and quality of freshwater in Texas are not affected by the state's climate.
   a. True
   b. False
   c. Unsure
5. _____ is a term used to describe the chemical, physical, and biological characteristics of water.
   a. Water quantity
   b. Water clarity
   c. Water quality
   d. Water availability
   e. Unsure

ed point such as a pipe,

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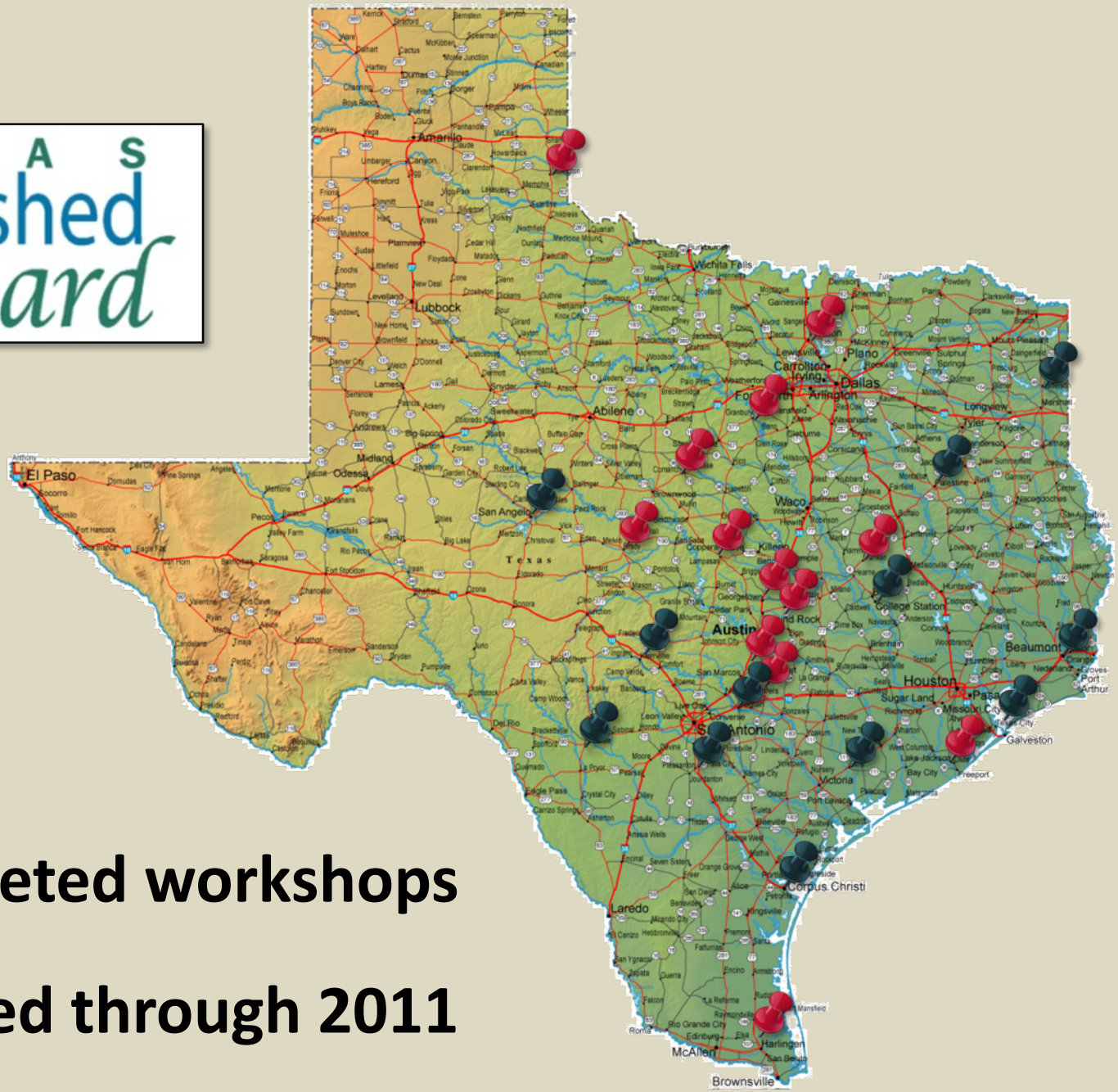
Results/Impacts:

- ***Watersheds:*** **13**
- ***Watershed Stewards:*** **718**
- ***Continuing Education:*** **1,600^{+} hrs**
- ***Overall Knowledge Gain:*** **31%**
- ***Become a Better Steward:*** **99%**

TEXAS Watershed Steward



- 13 completed workshops
- 16 planned through 2011

UPCOMING WORKSHOPS

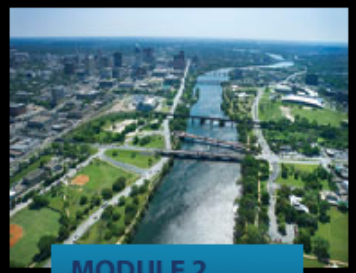
- **July 15th**: *Ft. Worth* (Eagle Mtn.)
- **August 25th**: *Kaufman* (Cedar Creek)
- **October**: *Wimberley* (Cypress Creek)
- **November 10th**: *Seguin* (Geronimo Creek)
- **December**: *Jefferson* (Caddo Lake)

AgriLIFE EXTENSION
Texas A&M System

Texas Watershed Stewards

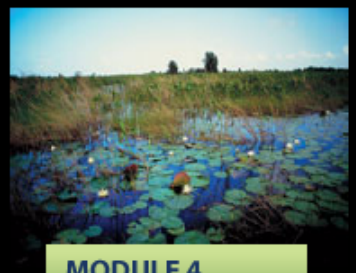
A Water Resource Training Curriculum

MODULE 1
Program Introduction



MODULE 2
Watershed Systems

MODULE 3
Watershed Impairments



MODULE 4
Managing Watersheds

MODULE 5
Community Involvement

TEXAS Watershed Steward

TSSWCB

Produced by the Texas AgriLife Extension Service in partnership with the Texas State Soil and Water Conservation Board. 2008.

Module 1: *Program Introduction*

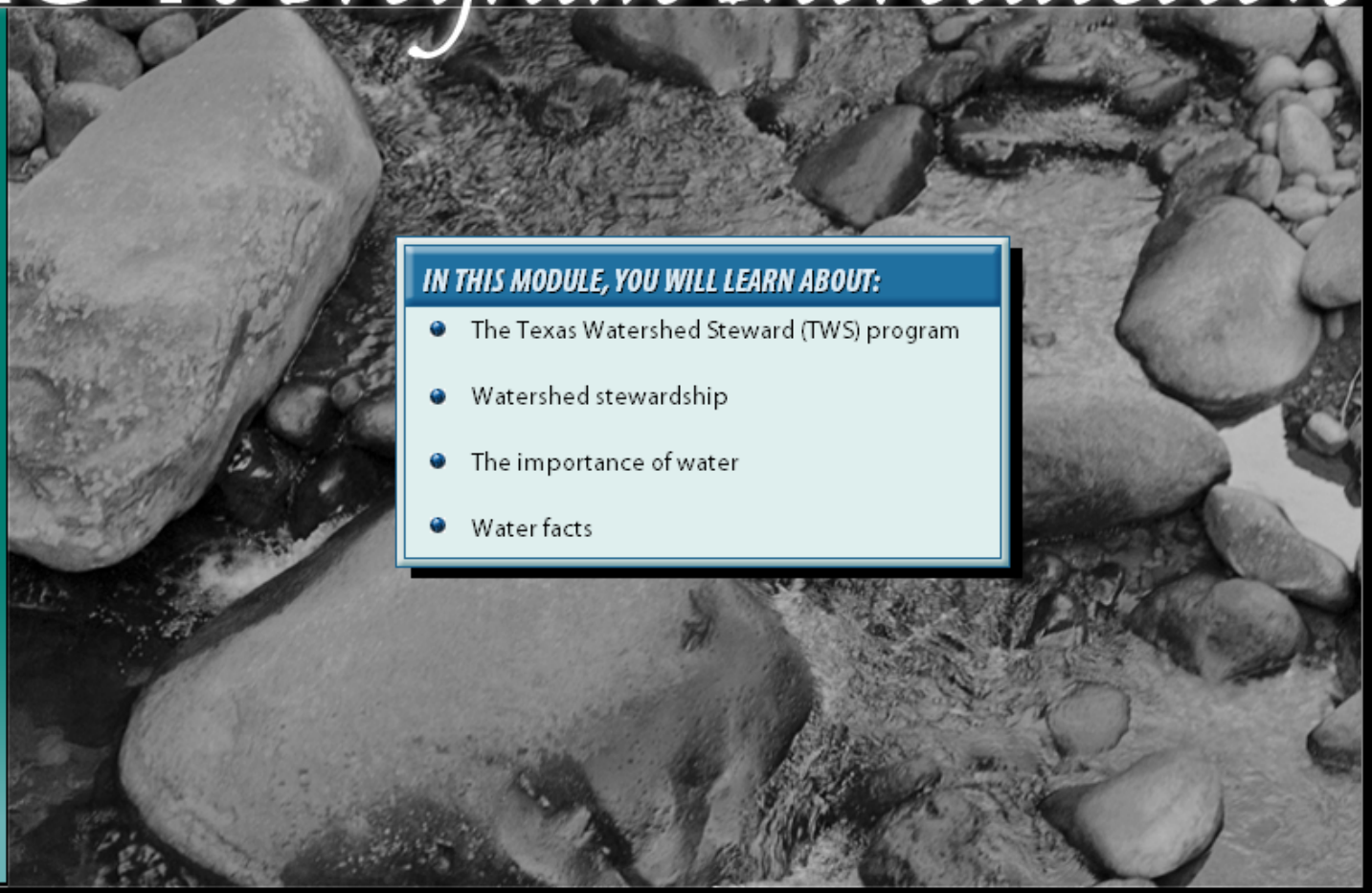
What is Texas Watershed Stewards?

Why is Watershed Stewardship Important, Anyways?

The World's Water

Water Use in the United States

Texas Water Facts



IN THIS MODULE, YOU WILL LEARN ABOUT:

- The Texas Watershed Steward (TWS) program
- Watershed stewardship
- The importance of water
- Water facts

TEXAS Watershed Steward

The World's Water

What is Texas Watershed Stewards?

Why is Watershed Stewardship Important, Anyways?

The World's Water

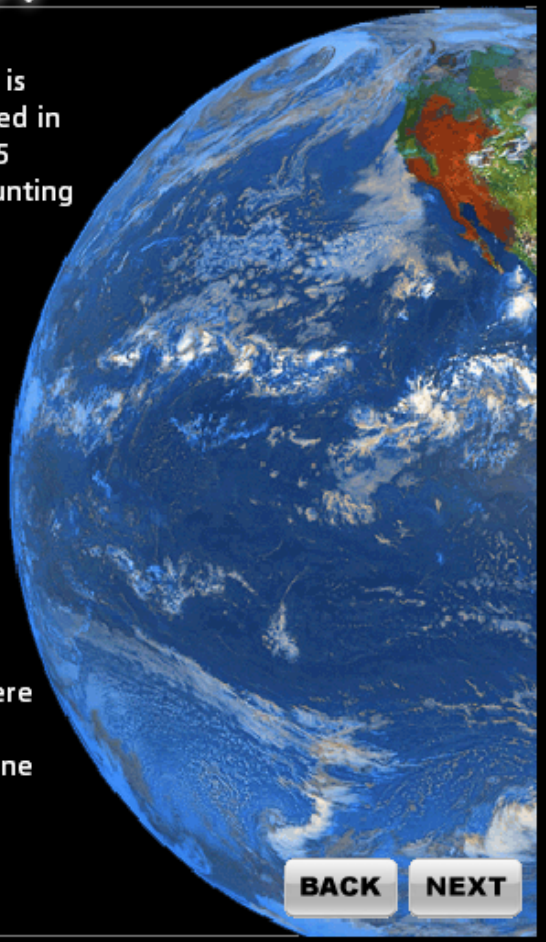
Water Use in the United States

Texas Water Facts

We live on a water planet. In fact, roughly 75 percent of the Earth is covered by water. However, most of the world's water is contained in oceans or seas or is tied up in ice caps and glaciers. Less than 0.65 percent of all the water on Earth today is liquid fresh water, amounting to only 0.01 percent of the Earth's total water resources. For this reason, it is vital that we protect our limited water resources.

You may ask yourself where all of our water is going. About 70 percent of the world's water is being used for agricultural purposes, primarily for irrigated farming. In the past 40 years, the amount of irrigated land in the world has doubled. Roughly 8 percent of the world's freshwater resources are used for human consumption and sanitation, while the remaining 22 percent is used by industry.

If all of the Earth's water (an estimated 325 quintillion gallons) were squeezed into a gallon jug and you poured out what was not drinkable (too salty, frozen, or polluted), you'd be left with only one drop, and even that might not pass U.S. water quality standards.

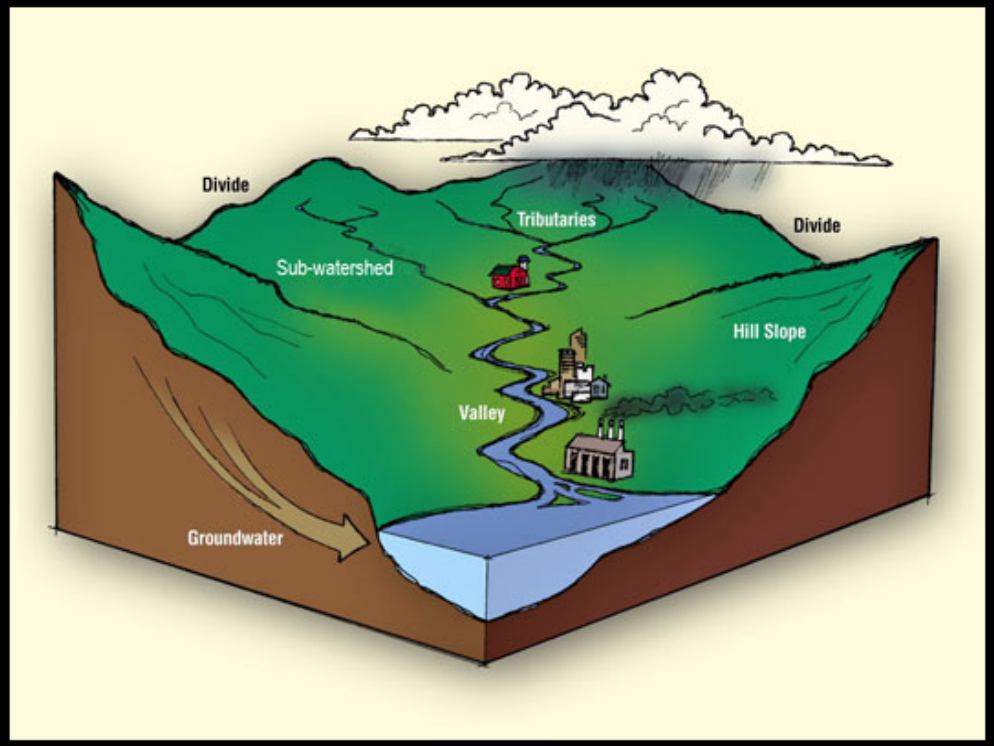


DID YOU KNOW?

TEXAS Watershed Steward

What is a Watershed?

What is a Watershed?
Watersheds in Texas
How Do Texans Use Watersheds?
Principles of Watershed Hydrology
Natural Watershed Functions
Natural Watershed Features



A watershed diagram.

A watershed is an area of land that water flows across, through, or under as it drains to a stream, river, lake, ocean or other body of water.

Each kind of drainage system has its own watershed and all drainage systems and watersheds are connected across the landscape.

Click to Play a Watershed Video!

TEXAS Watershed Steward

The Texas Watershed Steward Program

http://tws.tamu.edu

Jennifer L. Peterson
Texas AgriLife Extension Service

Tel: 979-862-8072
jlpeterson@ag.tamu.edu