



Geronimo and Alligator Creeks WPP Update

Ward Ling

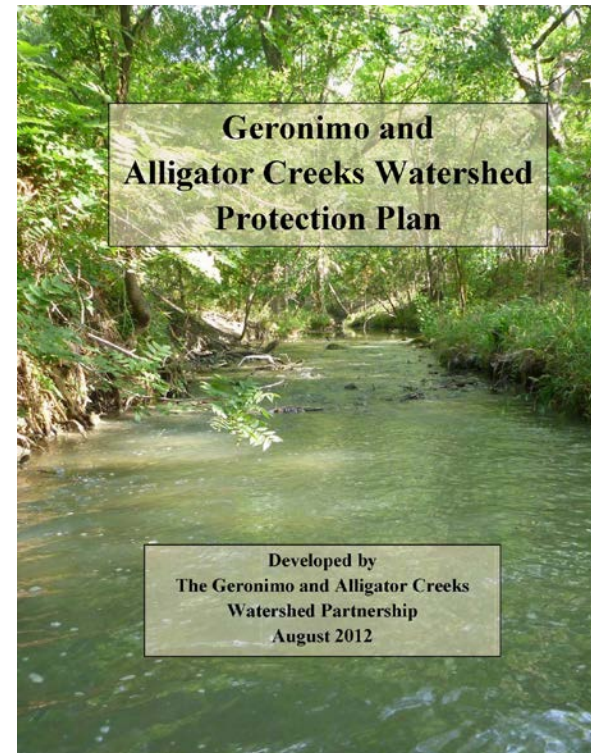
Geronimo and Alligator Creeks Watershed Coordinator

Texas A&M AgriLife Extension

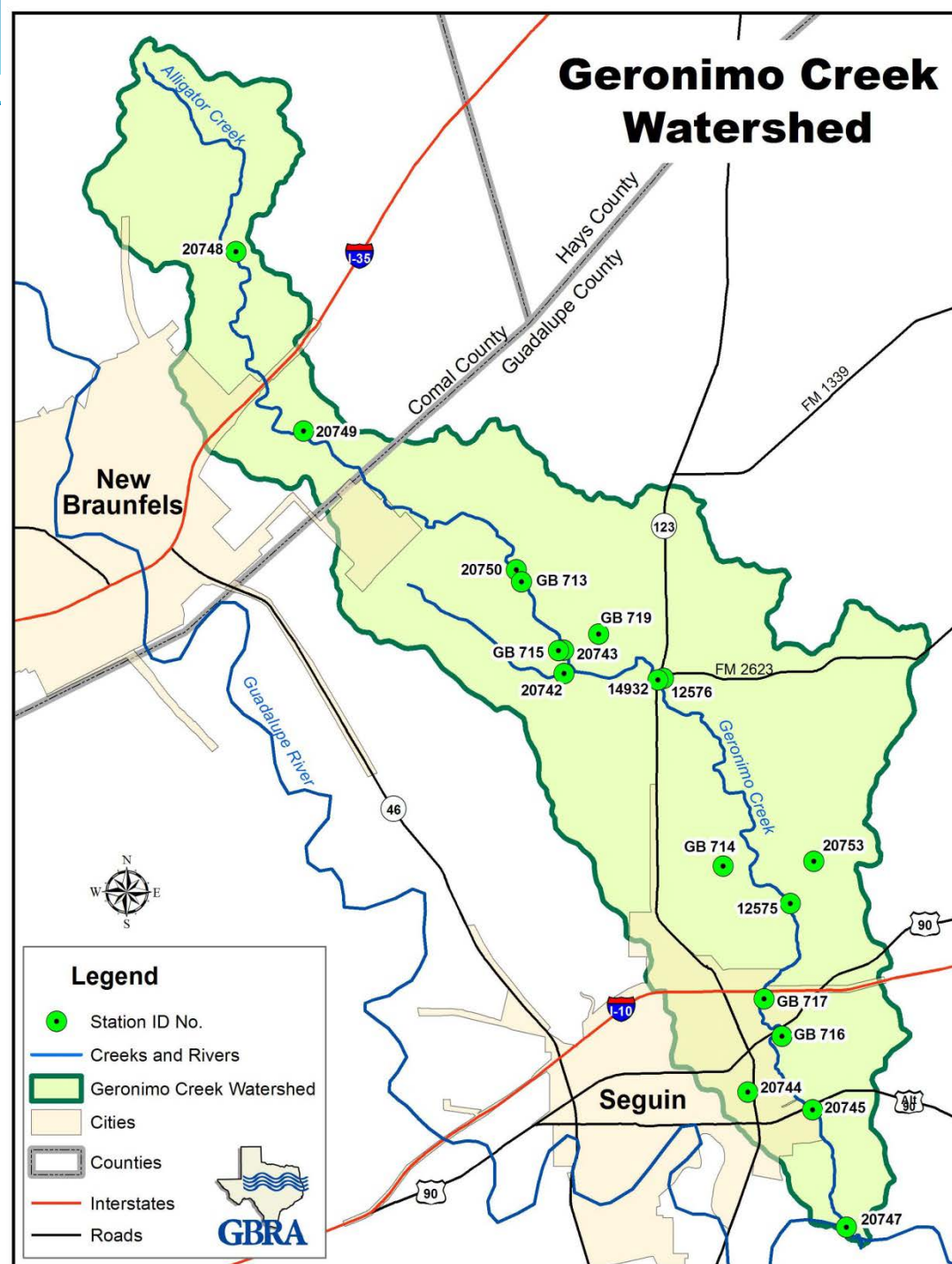
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What is the Watershed Protection Plan?

- The purpose is to restore and protect the creeks
- It was developed and managed through partnerships among federal, state, county, and local groups and organizations
- It is a summary of voluntary activities that can be done to reduce bacteria and nitrogen from entering the creeks



- Rapidly urbanizing
- Creeks are spring fed and from rainfall runoff
- There are no permitted discharges until near the Guadalupe River

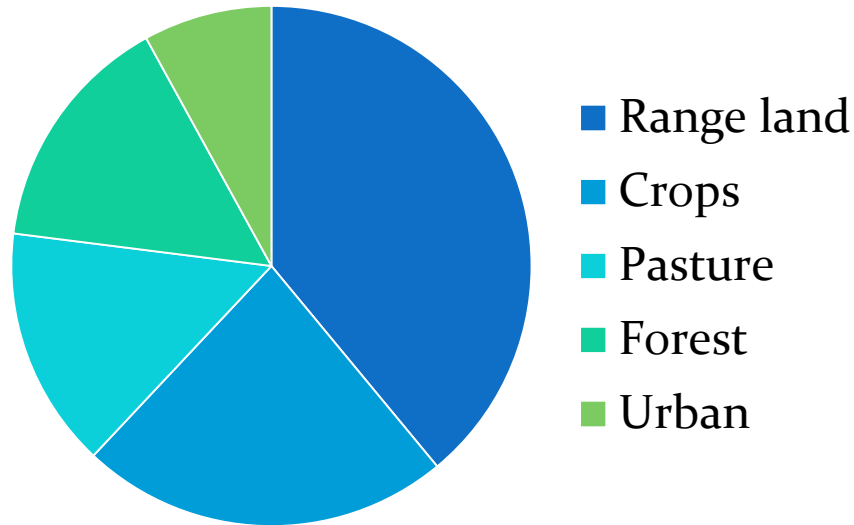


Where is it coming from?

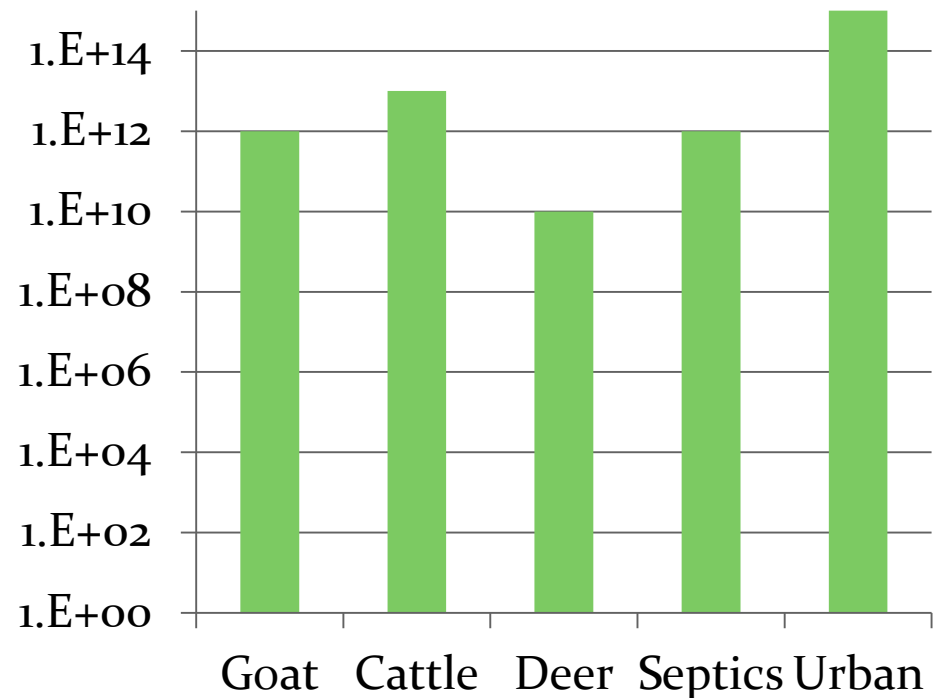
- The bacteria is coming from nonpoint sources
- Potential sources identified in the WPP
 - Urban sources such as dogs and urban runoff
 - Agricultural sources such as livestock, feral hogs, and wildlife
 - Failing septic systems



Land Use % Cover



Potential *E. coli* Loading



- In terms of loading, urban runoff was higher than all the other sources, but occupies the lowest land cover %.

What is being done?

- TCEQ Investigation
- SWCD Field Technician
- Septic System Workshops
- Lone Star Healthy Streams
- Annual Creek Clean Up
- LID at ILSOLC
- Revegetating Geronimo Creek
- Feral Hog Control



Issues along the creek

- TxDOT contractor working under Alt. Hwy 90, working without stormwater controls in place



Investigation

- Contacted the TCEQ San Antonio Field Office
- A Field Investigator came out and did an inspection
- Contractor was cited for improper storm water controls



Field Technician

- Cris Perez, is an employee of the Comal-Guadalupe SWCD
- He is a field technician who works with agricultural producers to better manage runoff from their operations



Homeowner Septic System Maintenance Class

- Class is conducted in the Spring and Fall past 5 years
- 6 hr in-depth class on aerobic systems
- Guadalupe County homeowners with aerobic systems are required to have a maintenance contract for first 2 years of a new system
 - After that time, Guadalupe County homeowners can be certified or must have a maintenance contract



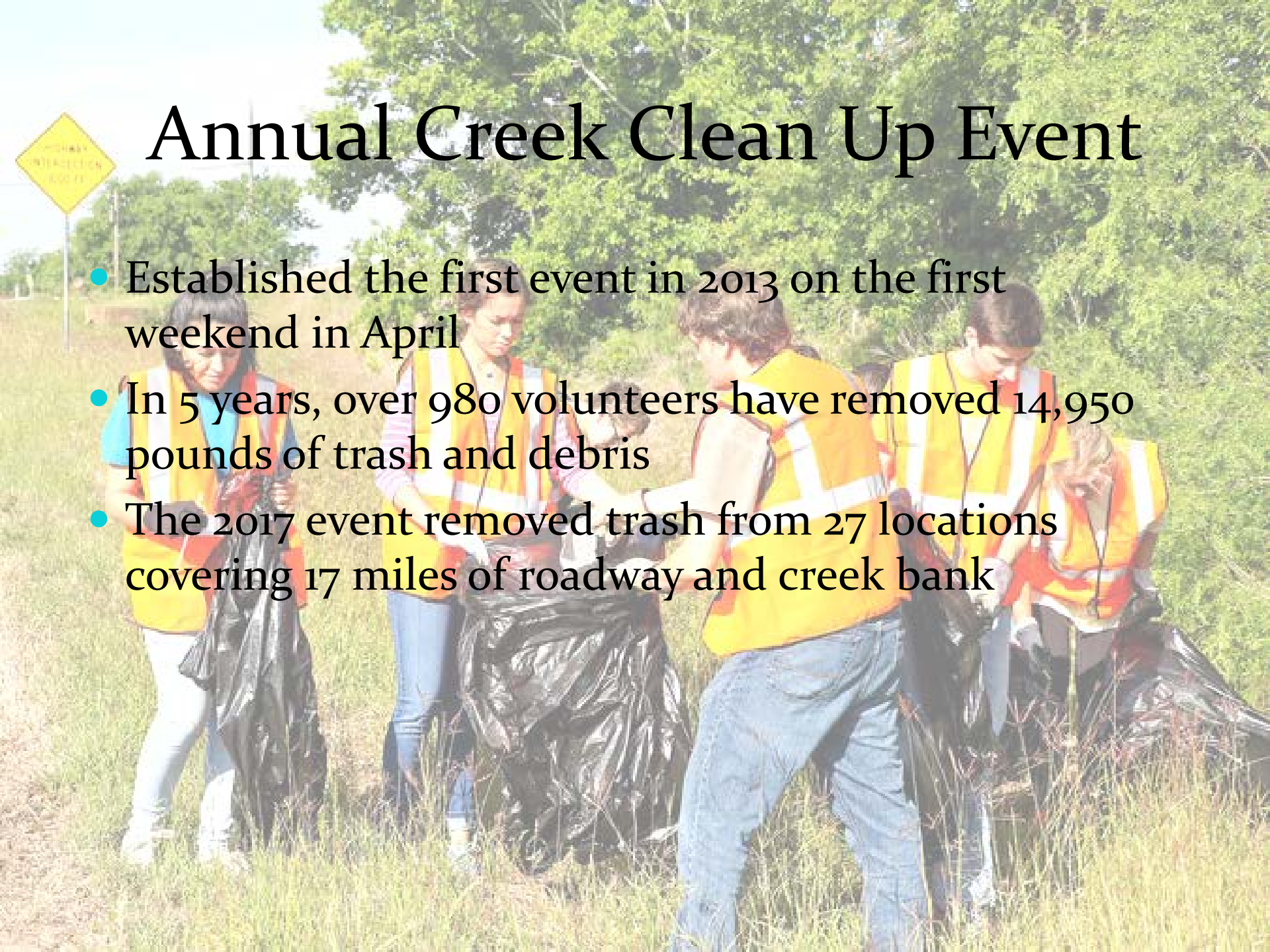
Lone Star Healthy Streams Workshop

- Goal is protection of Texas waterways from bacterial contamination from livestock and feral hogs
- Half day workshops for area agricultural producers
- Coming May 24, 2018



Annual Creek Clean Up Event

- Established the first event in 2013 on the first weekend in April
- In 5 years, over 980 volunteers have removed 14,950 pounds of trash and debris
- The 2017 event removed trash from 27 locations covering 17 miles of roadway and creek bank

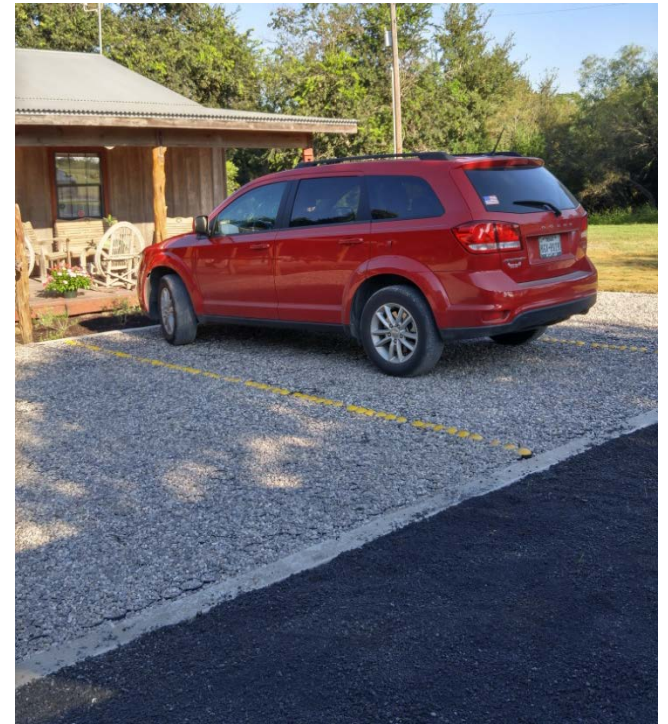


Saturday, April 7



LID Workshops

- Introduce Low Impact Development structures and practices to decision makers, students, and public
- Combination of classroom presentations and outdoor demonstrations



Why LID?

- Reduce stormwater runoff
- Reduce pollution in runoff
- Reduce impact to existing water supply
- Improved aesthetics over traditional construction techniques
- Restore and protect aquatic habitat through reduced erosion





RAINWATER HARVESTING

Rainwater harvesting reduces stormwater runoff and the problems associated with it. By harvesting rainwater and storing it, you can slowly release the water back into the soil, either through irrigation or direct application.

The capacity of the adjoining tank at the Sustainable Living Center is 5,000 gallons. Collected water will be used in the garden, rain garden, landscape and native grass demonstration areas.

The roof is only partially gabled because the goal was to capture rainwater for the garden and demonstration areas only.

Components of this rainwater harvesting system include: gutters, piping to the tank, tank, pump and associated piping to the garden and demonstration areas.

Benefits of Rainwater Harvesting

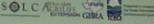
- Rainwater harvesting systems, electric, and storm sewer for water use. It can also release runoff, erosion, and accumulation of surface water.
- Rainwater can be used for nearly any purpose that requires water such as landscape use, stormwater runoff, toilets and laundry washing, in home use, and the protection.
- The practice of rainwater harvesting promotes water conservation by reducing demand on existing water supplies. It is a green strategy because the collected water becomes a free source of water during drought.



What is Stormwater?

- Stormwater is any water running off a hard surface (roof) it reaches a natural water body. It occurs when the rate of rainfall is greater than the infiltration rate.
- Runoff also occurs when the soil is saturated. Runoff occurs across the surface and flows into streams, creeks and rivers.
- Movement of stormwater across the soil can cause erosion. The stormwater can also carry and deposit unwanted pollutants, such as sediment, nutrients and pesticides into nearby surface waters.

Did you know?
One inch of rainfall on a 1,000 sq. ft. roof will collect 600 gallons of water. In Texas, a one inch rainfall will collect approximately 6.02 gallons for every square foot of roof surface. How about the next time you need water?



DO NOT DRINK













Revegetating Geronimo Creek













Questions and comments?



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Feral Hog Grant

- Met with Guadalupe County Commissioner's Court
- Moving forward with application to Wildlife Services
- Bounty Program and trapping supplies



Feral Hog Control

- Feral Hog Education Program Assistant focuses on feral hog management in the watershed
- The position works directly with landowners to reduce hog populations in the watershed

