

# Update on the Geronimo and Alligator Creeks Watershed Protection Plan

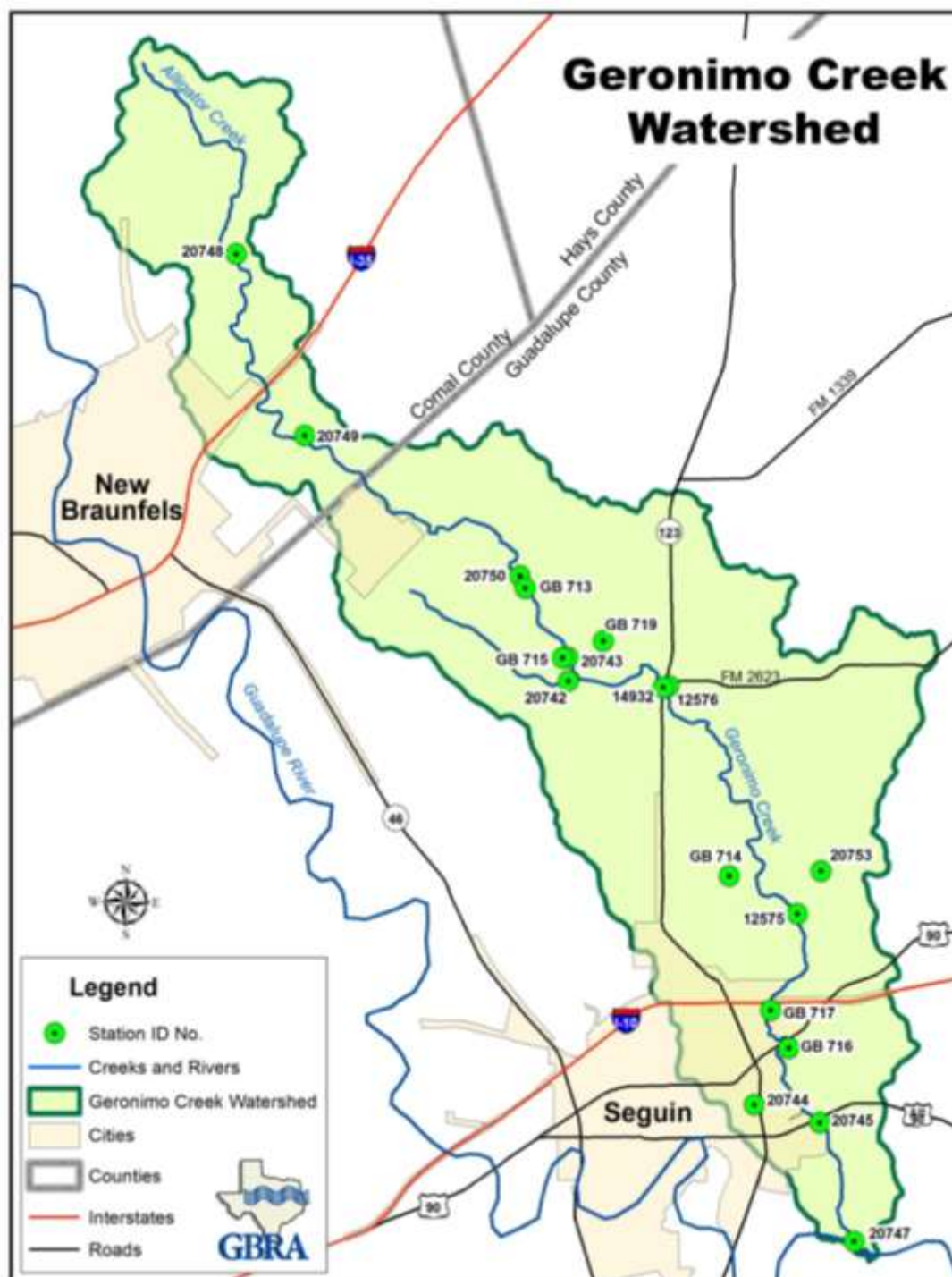


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Texas A&M AgriLife Extension



# Geronimo Creek Watershed



# Watershed Overview

- 90% in agricultural production and shrinking
  - Majority in livestock production, rest in row crop
- 8% in urban areas and growing
  - Cities of Seguin and New Braunfels

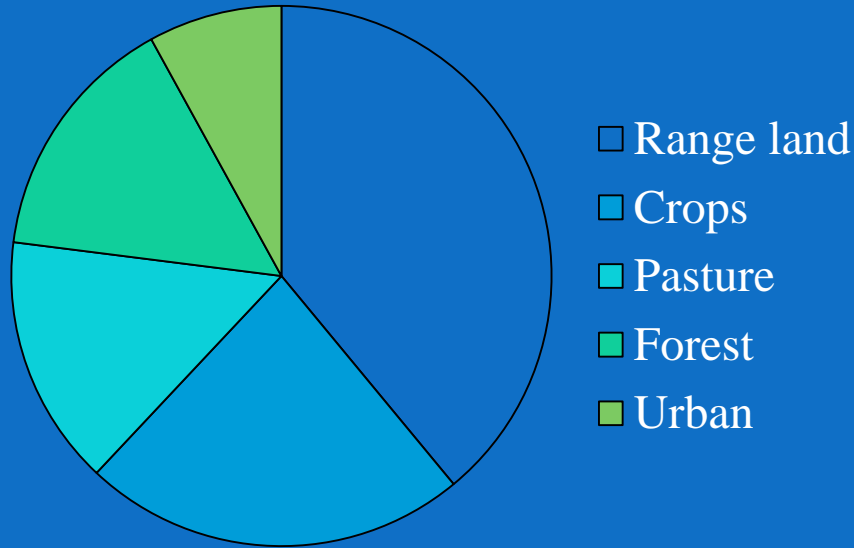


# Water Quality Issue

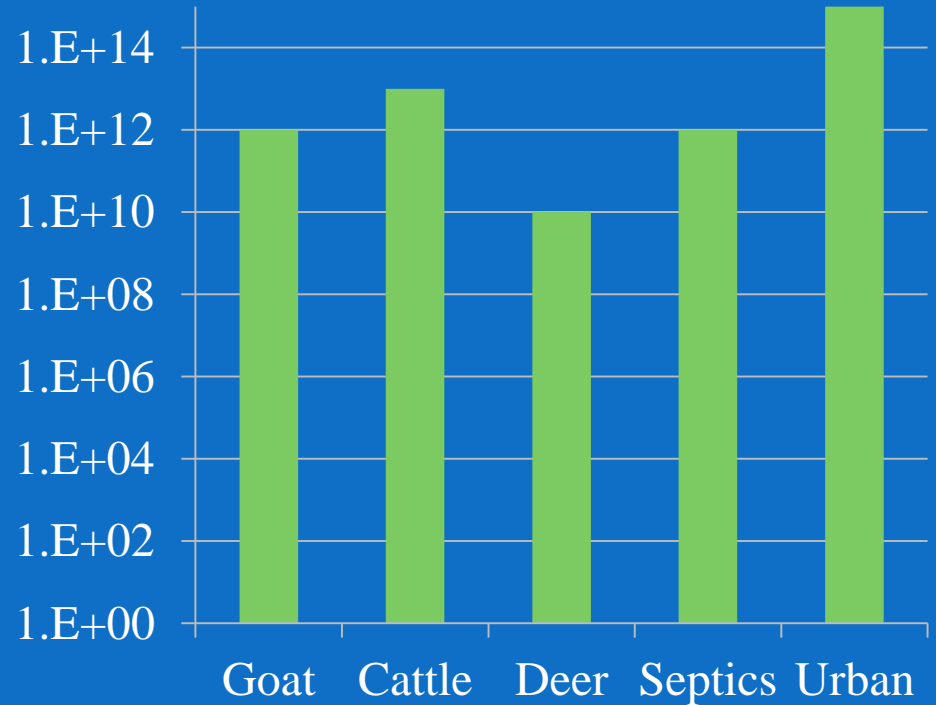
- Geronimo Creek was listed in 2006 for not supporting its contact recreation use
- Geronimo Creek was listed in 2000 for concerns for nutrient enrichment due to elevated nitrates



### Land Use



### *E. coli* Loading

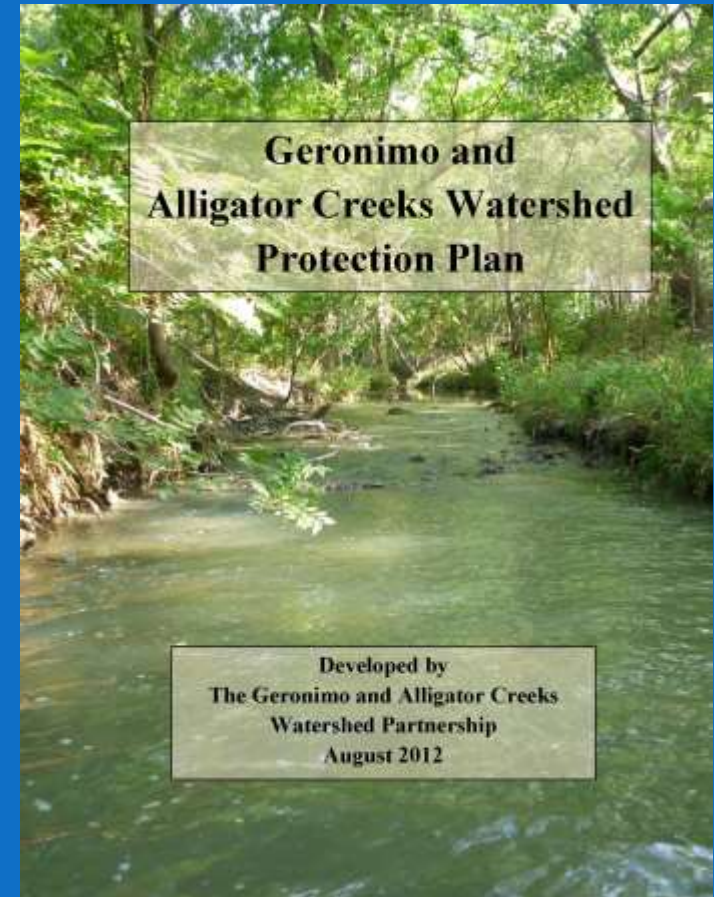


- In terms of potential loading, urban runoff was higher than all the other sources.



# What is the Plan all about?

- A community-driven, voluntary management plan
- The purpose is to restore and protect the creeks
- It is developed and managed through partnerships with citizens
- Relies heavily on stakeholder involvement at the local level



# Grant Funded Projects

- Issues identified by stakeholders during development of the WPP, and along the way...



# Septic Systems

- Grant from TCEQ to the City of Seguin
- Assisting homeowners with a septic system decommissioning project in Oak Village North





# Field Technician

- Joseph McIntosh, 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



# Irma Lewis Seguin Outdoor Learning Center Project

- Collaboration between GBRA, Texas A&M AgriLife, and the Irma Lewis Seguin Outdoor Learning Center
- Combines technology with on-the-ground demonstrations and outdoor education on LID techniques
- Rainwater harvesting, vegetated swales, rain garden, detention pond, and pervious pavement



# Phase 1





# Isotope Study

- GBRA and USGS are conducting targeted surface water quality monitoring
- Identify the source of nitrates in the groundwater and surface water in the Geronimo and Alligator Creeks Watershed and Plum Creek Watershed
- Possible sources:
  - Fertilizers
  - Septic systems
  - Animal waste
  - Nitrifying plants
  - Atmospheric deposition





# Watershed Coordinator

- To ensure that implementation of the WPP is completed and successful
- Funding from TSSWCB to Texas A&M AgriLife Extension



# Seguin High School

- Never before seen collaboration
- Impacting high school students and beyond



# Purpose

- Students tour a fabrication facility
- Extension provides feral hog and water quality information
- Students combine this knowledge to construct feral hog traps
- Traps will be auctioned off and some will be donated to be used in a trap loan program to assist area landowners



# Educational Opportunities

- Texas Watershed Steward Workshop
- Texas Well Owner Network Workshop
- Lone Star Healthy Streams Program
- Septic system workshops
- Master Gardener and Naturalist training
- Bacteria, nutrient, and pesticide management programs
- Soil and water testing campaigns





# Homeowner Septic System Maintenance Classes

- Classes conducted in the Spring and Fall past 2 years
- Two types of classes conducted
  - 2 hr basic overview class (materials on project website)
  - 6 hr in-depth class on aerobic systems
- Comal and Guadalupe County homeowners with aerobic systems are required to have a maintenance contract for first 2 years
  - After that time, Guadalupe County homeowners can be certified or must have a maintenance contract

# Next Round

- Classes are scheduled for 11<sup>th</sup> and 12<sup>th</sup>
- Will offer both the 2 hr and 6 hr classes

Those taking the 6 hr class will receive certification to maintain their own aerobic systems (Guadalupe County requirement)



# Feral Hog Control

- Josh Helcel, the 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
- Contact info at <http://www.geronimocreek.org/>



# Feral Hog/Lone Star Healthy Streams Workshop

- Scheduled for September 1<sup>st</sup>
- Come hear about how to protect Texas' surface water from bacterial contamination from livestock, horses, and feral hogs
- 3 TDA CEUs for pesticide applicators





# Smart Growth Workshop

- Explore Low Impact Development techniques – have an improved impact on surface water, both quality and quantity
- Target audience is the county and city decision makers



# Annual Creek Clean Up Event

- Saturday, April 11, 9am to noon
- Volunteers use an online registration form
- Day of the event, all necessary equipment is provided-- water bottles, breakfast tacos, and T-shirts—oh, and gloves, tools, and bags
- Guadalupe County Master Naturalists will present educational presentations to many of the clean up crews







# 2014 Event

- 22 locations covering 17 miles of roadways and creek banks
- Over 230 volunteers
- Volunteers could choose to meet at one of three locations





















# 2014 Results

- Volunteers collected over 7,000 pounds of trash
- Cities of New Braunfels and Seguin donated disposal and recycling of all materials collected
- Residents have a greater awareness of area creeks
- Great response from area businesses and groups





# 2015 Sponsors

- Cities of New Braunfels and Seguin
- Alamo Group
- Continental Corporation
- Geronimo Creek Retreat
- Guadalupe-Blanco River Authority
- HEB
- Progressive Waste
- Liz Sedlacek
- Spirit of Joy Lutheran Church
- Texas A&M AgriLife Extension
- Guadalupe County Groundwater Conservation District
- Guadalupe Valley Young Marines



# Upcoming Opportunities

- 3<sup>rd</sup> Annual Clean Up Event April 11
- Homeowner Septic System Maintenance Workshops
- Feral Hog/Lone Star Healthy Streams Workshop
- Turf grass management workshop in the fall
- Fall soil testing campaign
- Quarterly newsletter
- Quarterly Partnership meetings



Thank You!  
Get connected at  
<http://www.geronimocreek.org/>

