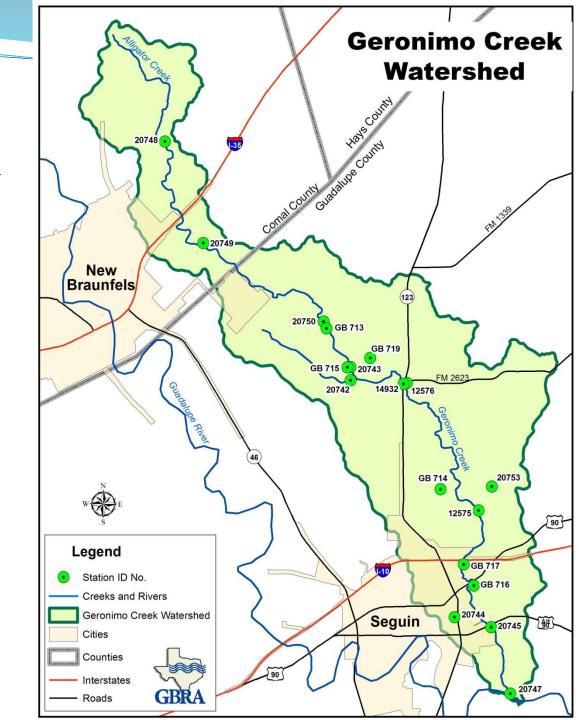


### What is the issue?

- Geronimo Creek does not meet the water quality standard for wading and swimming due to elevated bacteria concentrations
- Nitrate levels are elevated

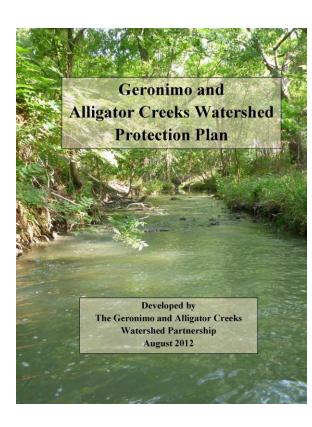


- Rapidly urbanizing
- Creeks are spring fed and from rainfall runoff
- There are no permitted discharges until near the Guadalupe River

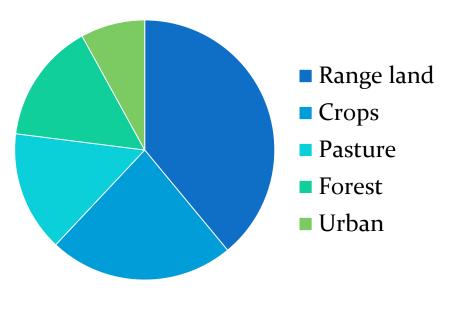


# What is the Watershed Protection Plan?

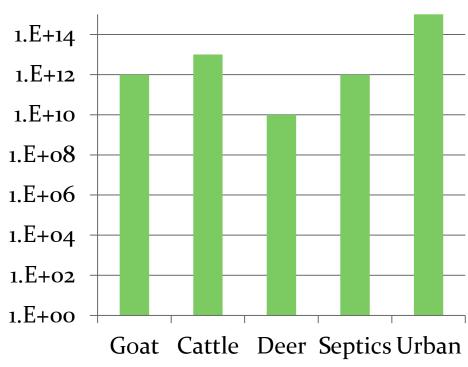
- It is a summary of voluntary activities
- The purpose is to restore and protect the creeks
- It was developed and managed through partnerships among federal, state, county, and local citizens and organizations



#### **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 %.

# 7<sup>th</sup> Annual Creek Clean Up Event

- April of 2019 Spring Event
- 99 volunteers (low attendance due to rain that morning-had over 150 registered)





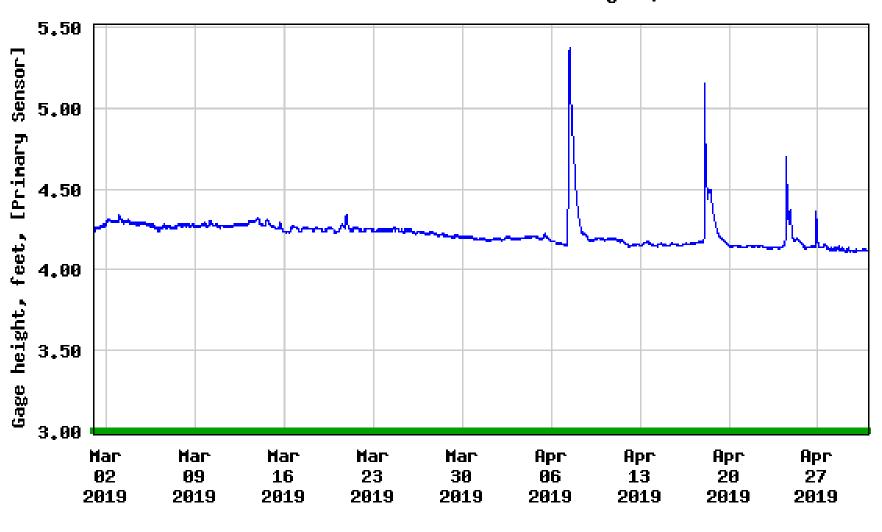
## Rain, rain, go away, come again..

- Covered 14 locations totaling 11 miles of roadway and creek banks.
- 3,640 pounds of trash including 14 tires, pallets, and debris were removed.
- 15 sponsors supported the event



### Flow Data

USGS 08169780 Geronimo Ck nr Seguin, TX



- Gage height

Period of approved data

## Healthy Lawns Healthy Waters

- 30 attendees
- Irrigation/fertilizer practices
- Free soil test
- Proper turf selection
- Free rain barrel and other door prizes

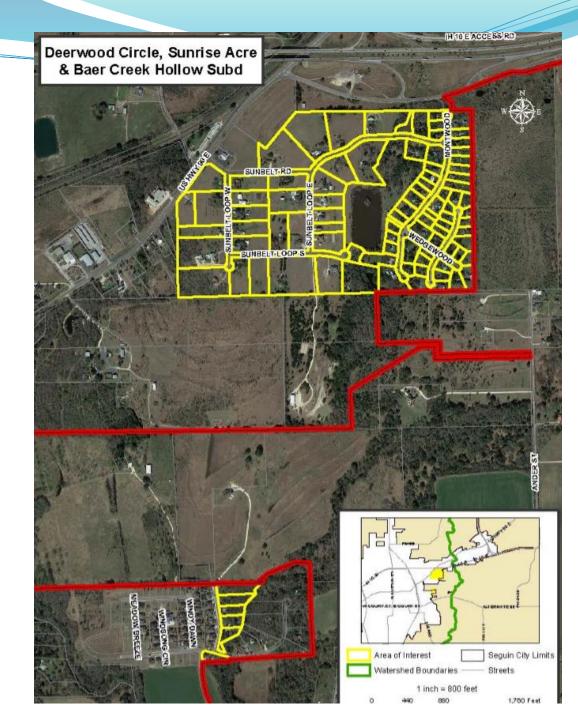






# Grant for City of Seguin

- Grant award from TCEQ to decommission up to 57 septic systems
- Connect to sanitary sewer lines
- Initiates Fall 2020



# Homeowner Septic System Maintenance Class

- Class is conducted in the Spring and Fall past 7 years
- Guadalupe County homeowners with aerobic systems are required to have a maintenance contract or be certified to maintain their system
- This certifies homeowners with aerobic septic systems
- Had around 60 attendees in Sept. 2019



### First-Ever Fall Creek Clean Up Event

Saturday, October 19

Met at the Irma Lewis Seguin Outdoor Learning

Center

76 volunteers participated







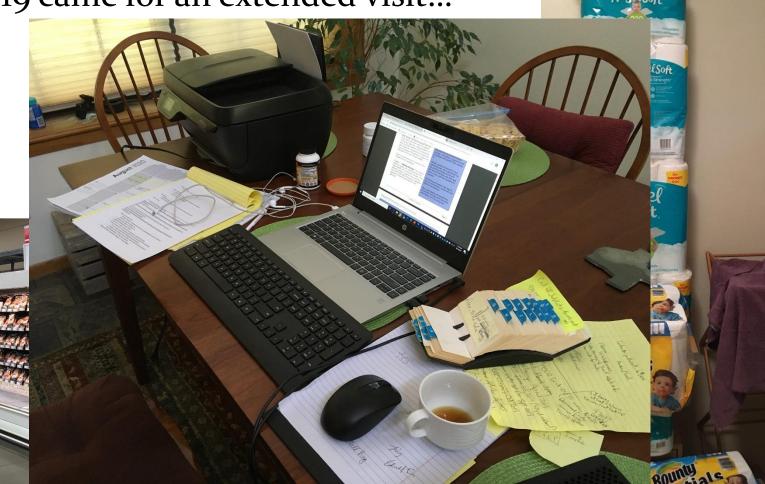


### Planned 2020 Events

- Homeowner Septic System Maintenance Class-April
- 8<sup>th</sup> Annual Creek Clean Up Event-April
- Summer Rainwater Harvesting Program
- Fall Low Impact Development Workshop
- And other events...



• COVID19 came for an extended visit...



### Upcoming-Bacterial Source Tracking

- The process of identifying the source of bacteria, by analyzing the DNA found inside of the bacteria
- Can identify primary sources of bacteria
- Hope to see results this fall





# Thank you!

- I have started a new job with Texas Water Resources Institute
- Will have the opportunity to train my replacement
- I want to say a huge THANK YOU to everyone who I have been able to work with these past 10+ years!



#### Questions and comments?



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