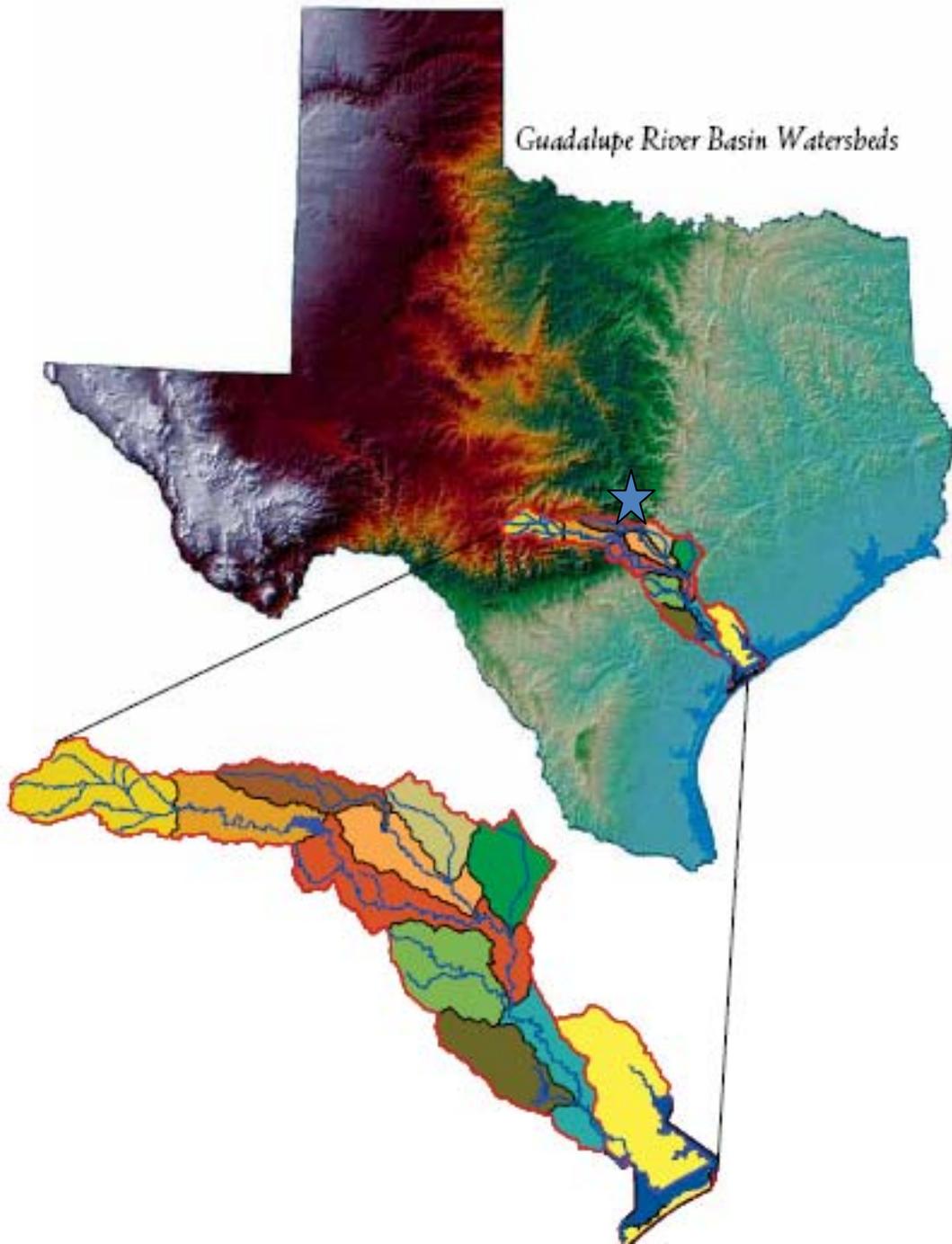


The Geronimo and Alligator Creeks Watershed Protection Plan



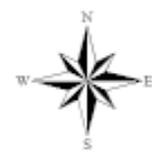
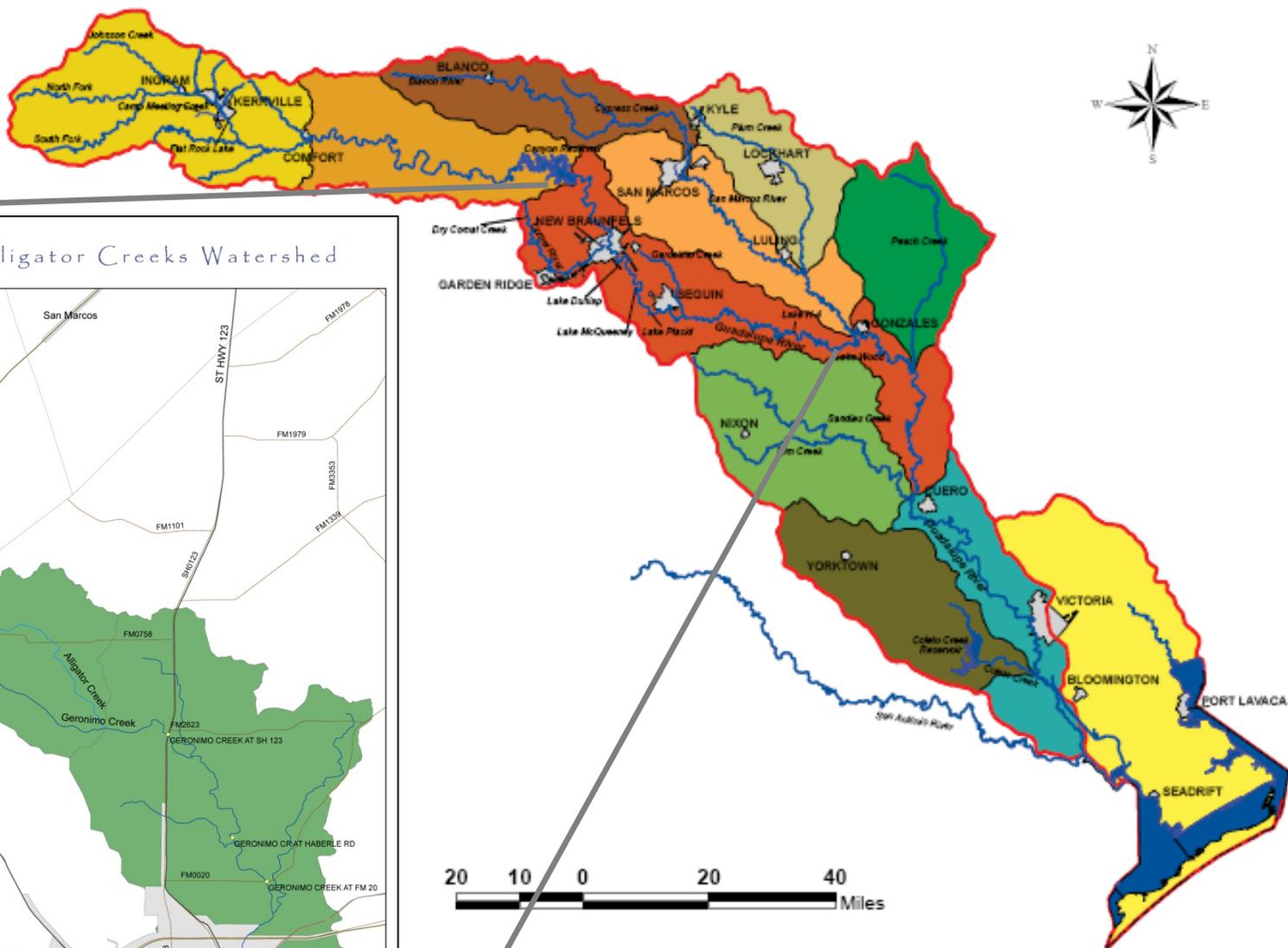
Ward Ling
Texas AgriLIFE Extension



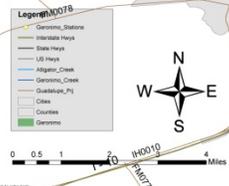
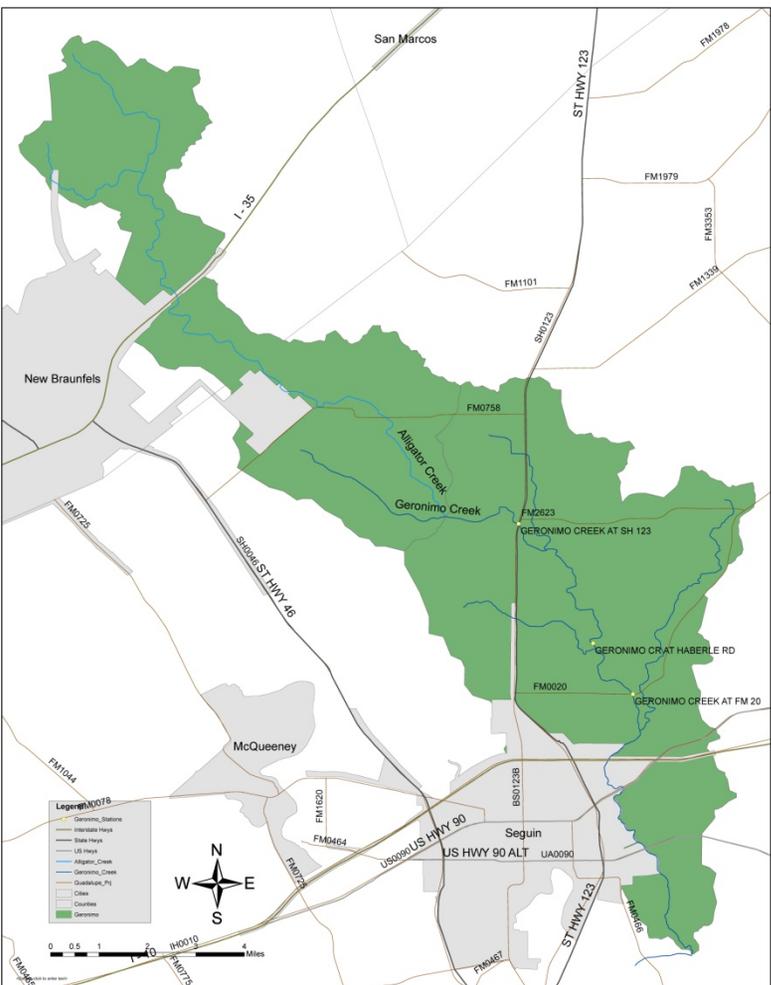


Geronimo and
Alligator Creeks
are located in
the Guadalupe-
Blanco River
Basin

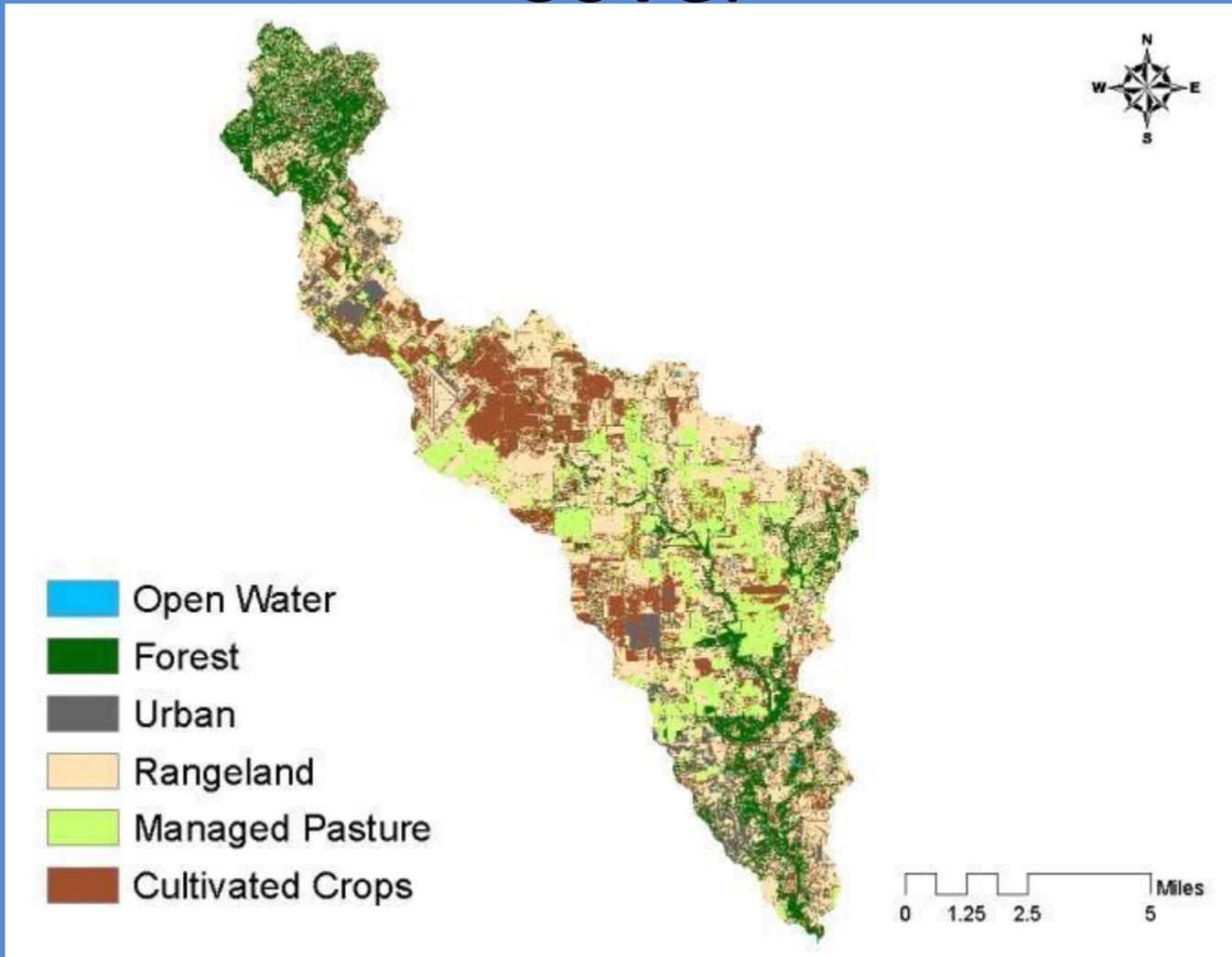
GUADALUPE RIVER BASIN WATERSHEDS



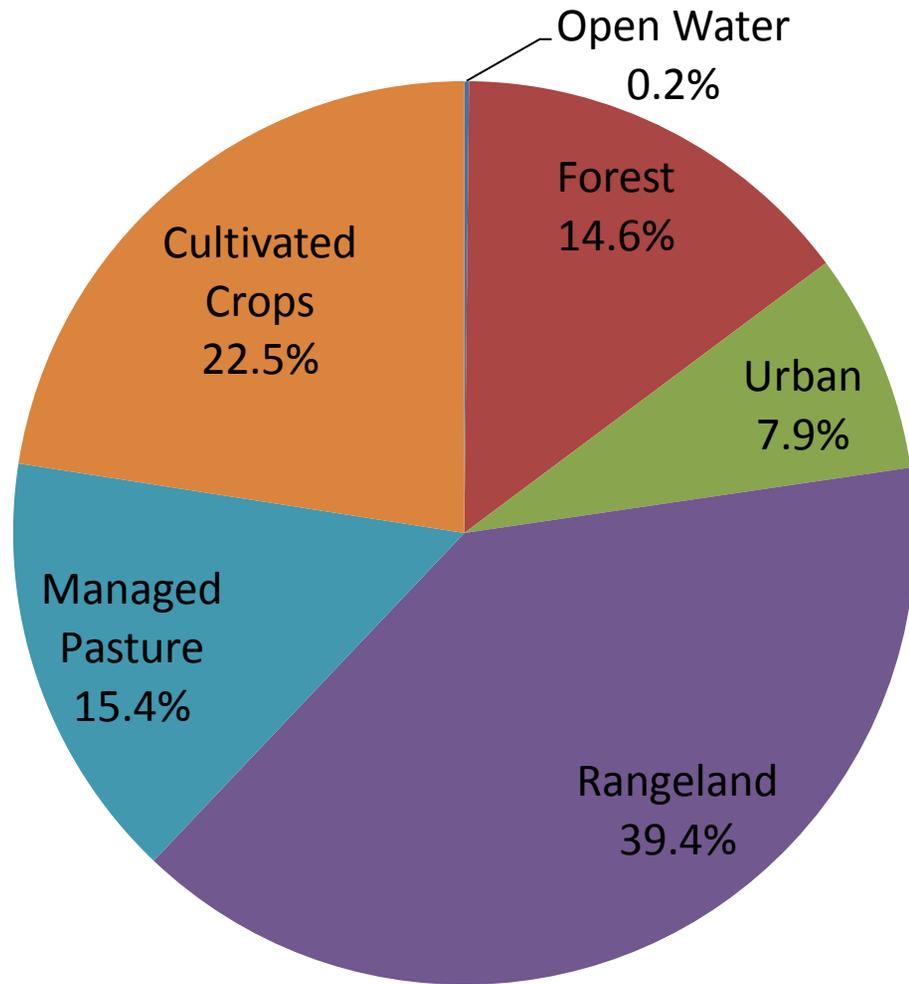
Geronimo and Alligator Creeks Watershed



Watershed Land Use/Land Cover



Land Use Percentages



<u>Land Use</u>	<u>Acres</u>
Total	41625
Rangeland	16397
Cultivated Crops	9381
Managed Pasture	6406
Forest	6088
Urban	3282
Open Water	72

Water Quality Issues

- Geronimo and Alligator Creeks
 - Elevated nitrogen
 - Drinking water criteria
 - Elevated *E. coli*
 - Contact recreation criteria
- All other uses are good
 - General use
 - Aquatic life use



Funding the Plan

- GBRA submitted a proposal to TSSWCB for a grant from the U.S. Environmental Protection Agency to develop a WPP for Geronimo Creek
- GBRA began engaging potential stakeholders and collecting additional water quality data
- GBRA contracted with AgriLife Extension
 - help facilitate the stakeholder process
 - analyze the data
 - assist in development of the WPP

The Goal

- To develop a plan to reduce nitrogen and bacteria loading
- To put the plan into action
- Measure progress over time
- Restore and maintain water quality



Geronimo and Alligator Creeks Watershed Protection Plan

- This effort is similar to the Plum Creek Project
- Stakeholder driven process
- Data collection and analysis
- Plan development will take a little over a year
- Monthly meetings
- Turn ideas into actions



Project Initiation

- Two kickoff meetings in October '09
 - Newspaper, radio, email lists, USPS mailings
- Texas Watershed Stewards Program in November
- First Partnership Meeting in January '09
- Monthly meetings

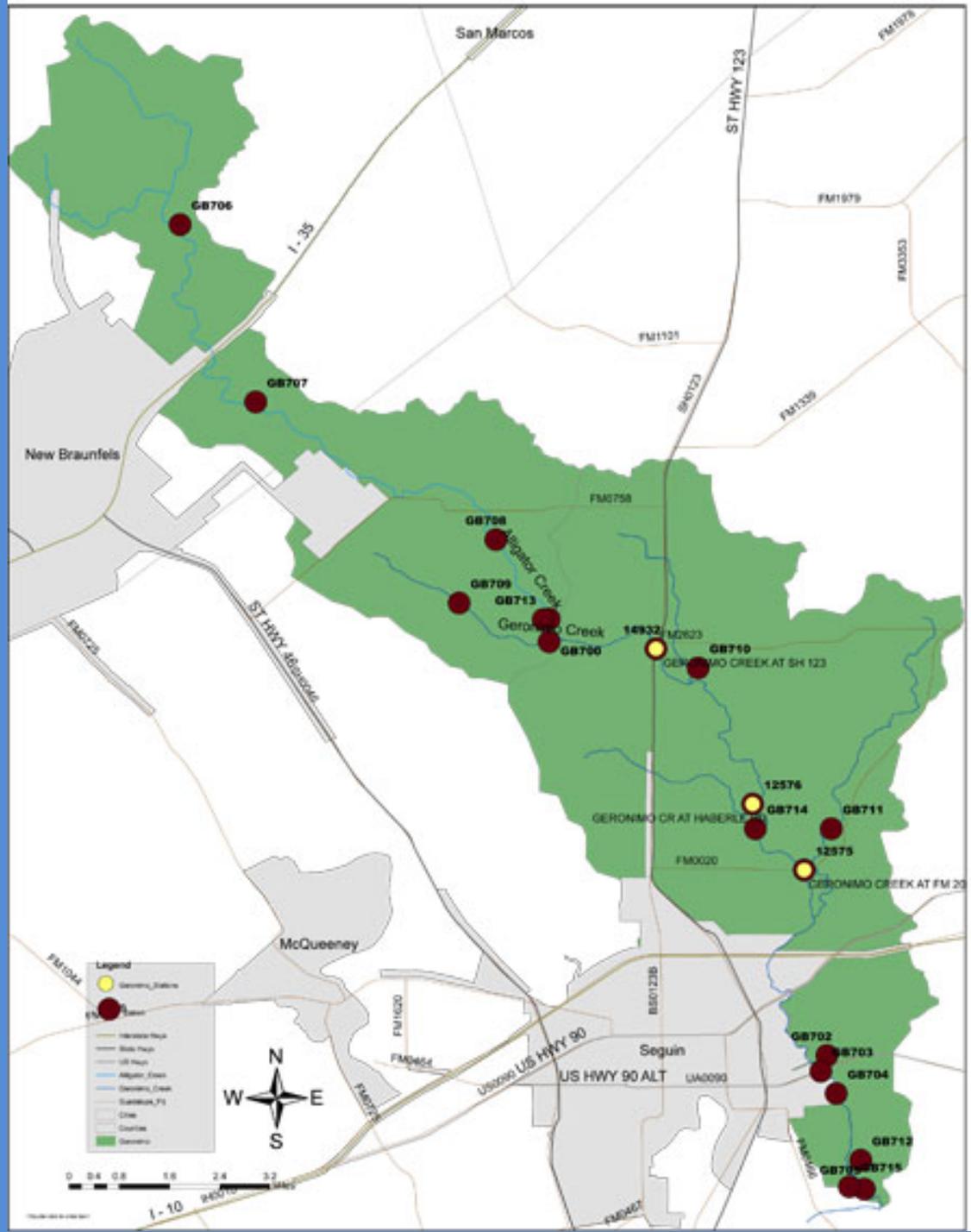
Partnership Structure

- Formation of the Steering Committee
 - Working with GBRA, CEAs, SWCDs, cities, local individuals
- Formation of Work Groups
 - Wastewater Infrastructure Work Group
 - Agricultural Nonpoint Source Work Group
 - Urban Nonpoint Source Work Group
- Formation of a Technical Advisory Group

Data Analysis

- Historical data is primarily from 2 sites
- New intensive data collection initiative began last year at over 15 sites
- Will utilize Spatially Explicit Load Enrichment Calculation Tool (SELECT) to estimate loadings
- Load Duration Curve analysis will be used to determine load reductions

Water Quality Monitoring Sites



Timeline

- Summer through Fall 2010- continue to alternate monthly Work Group meetings with Partnership meetings
- Winter 2010-11 develop draft Watershed Protection Plan
- Spring 2011- finalize the Watershed Protection Plan

Project Partners



Geronimo and Alligator Creeks Watershed Partnership



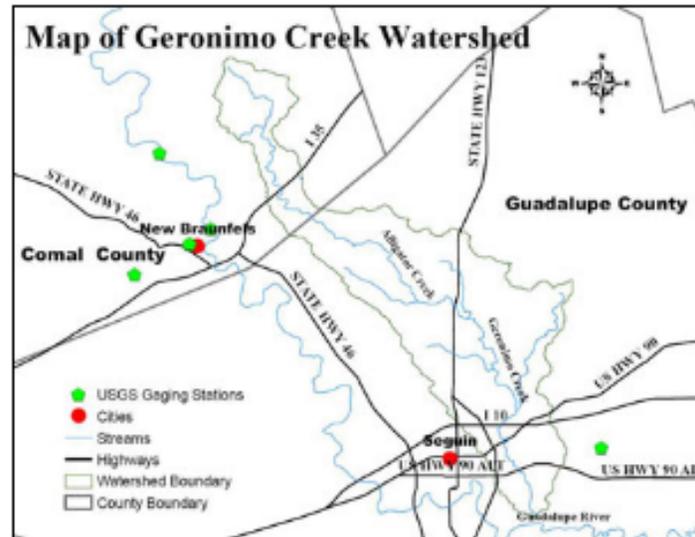
- Home
- Contact Us
- Project Overview
- Meetings
- Water Quality
- Publications
- Partners

Geronimo and Alligator Creeks

Geronimo Creek and its tributary Alligator Creek are located in Comal and Guadalupe Counties. The almost 70-square-mile Geronimo Creek watershed lies within the larger Guadalupe River Basin. The lower portion of the Geronimo Creek watershed lies in the extra-territorial jurisdiction (ETJ) of Seguin. The upper portion of the Alligator Creek watershed lies in the ETJ of New Braunfels. Alligator Creek begins on the west side of I-35 and flows southeast, travelling through a rapidly developing area of the Austin-San Antonio corridor.

As development and population growth continue, the percentage of urban land use will rise and play an increasingly important role in the hydrology and water quality of Geronimo Creek and its tributaries.

Based on routine water quality sampling of Geronimo Creek, the stream is impaired by elevated bacteria concentrations and has nutrient enrichment concerns for nitrate-nitrogen. High bacteria concentrations do not support contact recreation use and high levels of nitrogen can cause algal blooms and excessive growth of aquatic vegetation.



Website

www.GeronimoCreek.org

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