

CEAP Monitoring Activities in the Upper Leon River Watershed

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Cooperators

- Local Farm Bureau group
 - Melde, Schrank, Patton family land
- Tentative approval for USEPA 319 grant



TIAER

**STRONG ECONOMY
HEALTHY EARTH**

Major Objective

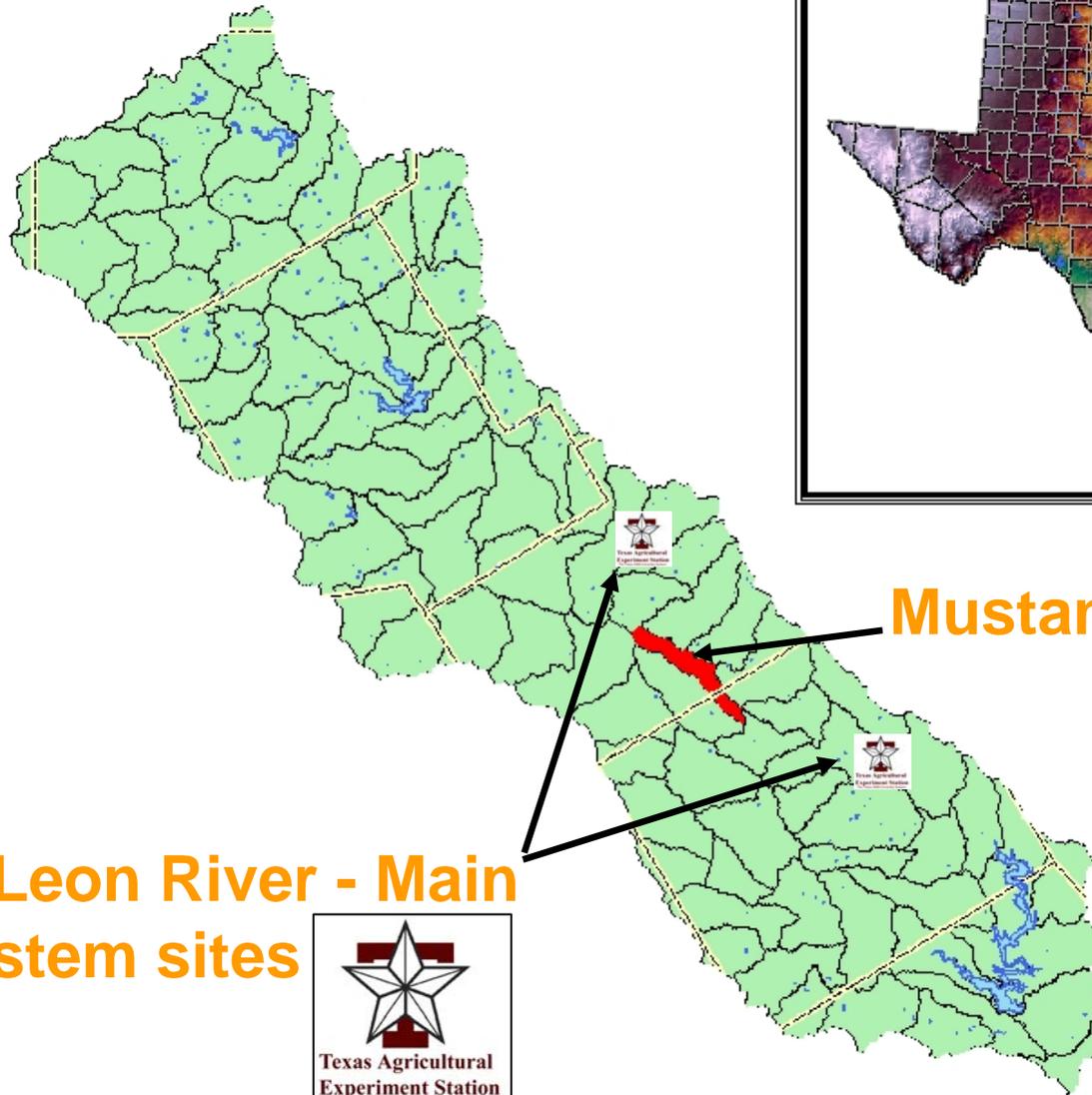
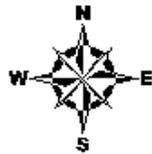
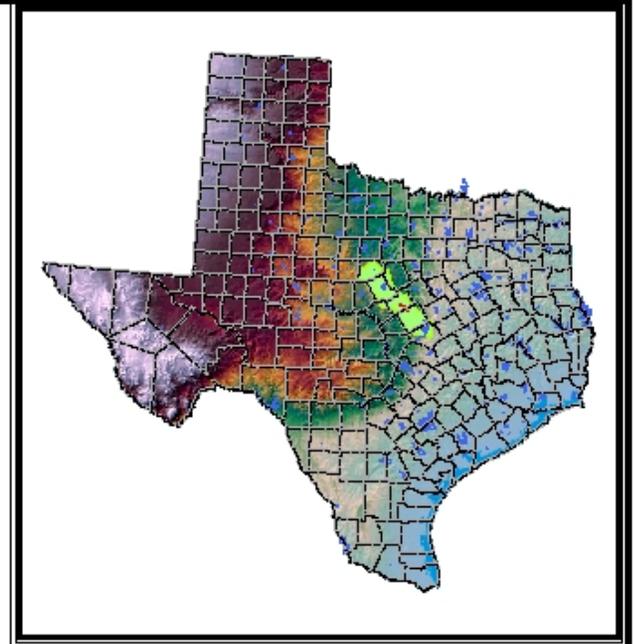
- Quantify effects of NRCS conservation practices on soil quality, water quality, and hydrology
 - Nutrient Management (590)



Monitoring Sites

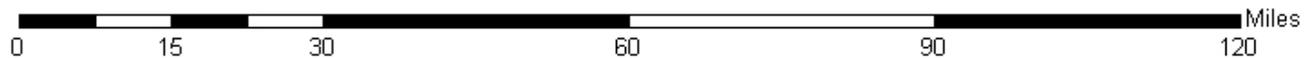
<u>Sites</u>	<u>Size</u>	<u>Land use</u>
Three field plots	2-3 ac	Cultivated
Two field plots	1-2 ac	Pasture
Field	41 ac	Cultivated (litter app)
Mustang at 3340	3625 ac	Mixed
Mustang at Dam	13605 ac	Mixed
Leon River	1900 sq mi	Mixed
Leon River	2300 sq mi	Mixed
<i>Riesel - 18 small watersheds</i>	<i>0.25–309 ac</i>	<i>Cultivated, pasture, native prairie (litter app, grazed)</i>

Leon River & Mustang Creek

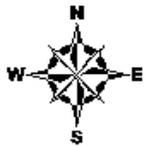
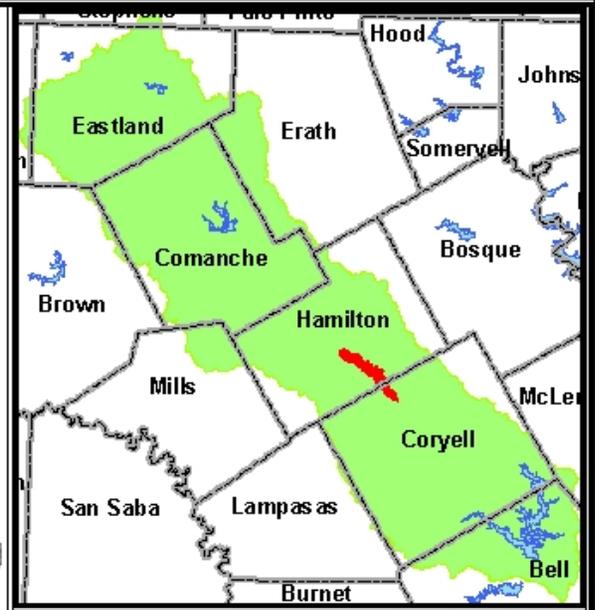


Mustang Creek

Leon River - Main stem sites



Mustang Creek Location



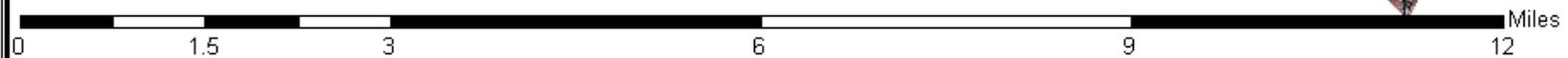
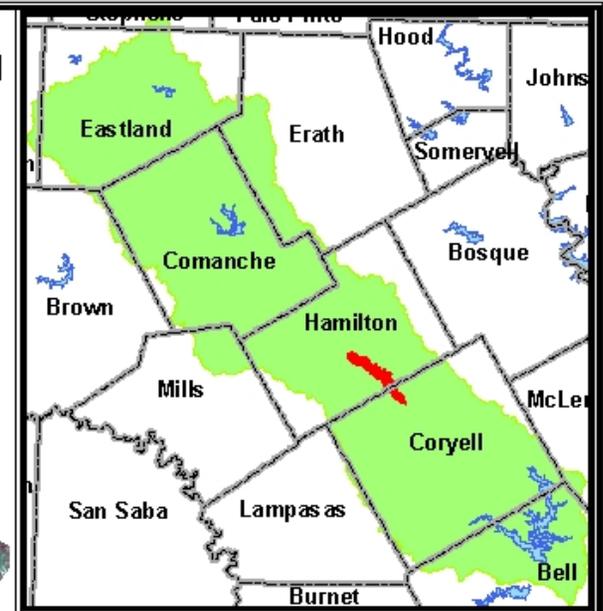
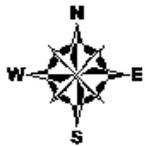
13,605 ac



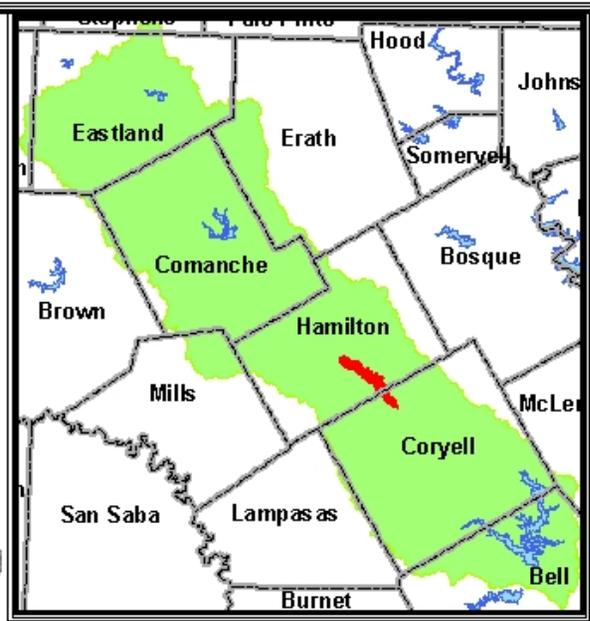
Mustang Creek Location

3,625 ac

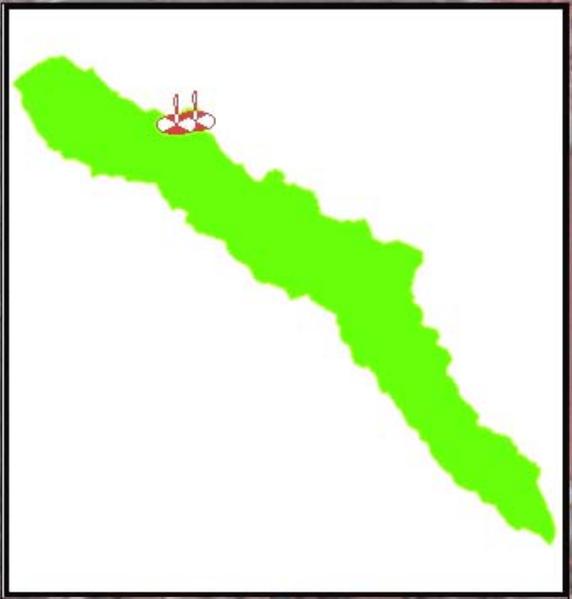
das



Mustang Creek Location

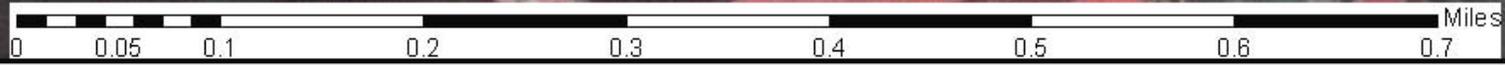


Mustang Creek Sample Locations



41 ac

**Three plots
(approx 3 ac)**





Data Collection

Parameters

- flow
- dissolved nutrients
($\text{NO}_3\text{-N}$, $\text{NH}_4\text{-N}$, $\text{PO}_4\text{-P}$)
- particulate N, P
- suspended sediment
- bacteria
- DO, temp, cond., pH

Method

- continuous (ISCO)
- storm (ISCO),
baseflow (grab)
- storm (ISCO)
- storm (ISCO)
- bi-weekly (grab)
- bi-weekly (probe)



Timeline

2004 - Site scouting, initial stage vs. Q data, start grab sampling, equipment testing, site installation

2005 - Finish site installation, background data

2006 - Implement treatments

2007-2009 - Produce a high-quality data set

- to support National Assessment
- to understand effects of conservation practices

