



# Lavaca River

## Watershed Protection Plan

*Project updates*

Emily Monroe  
Extension Program Specialist  
Texas Water Resources Institute

August 20, 2020

Annual CRP Meeting

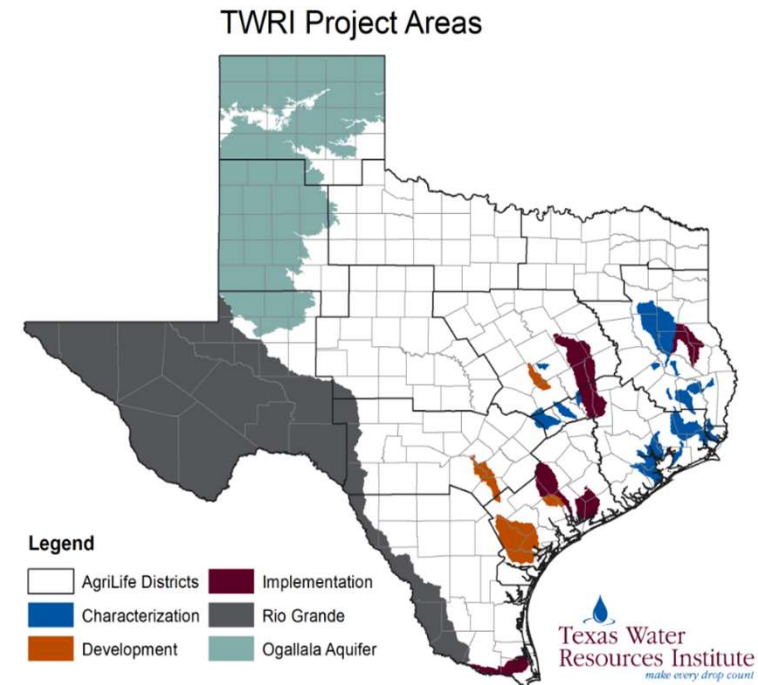




# Texas Water Resources Institute

*make every drop count*

- Established by Water Resources Research Act (1964) to address existing and emerging water issues
- Focus Areas
  - Restoring and Protecting
  - Sustaining and Enhancing
  - Engaging and Educating
- Funding Offered
  - USGS/Mills Student Scholarships
  - Water Seed Grant







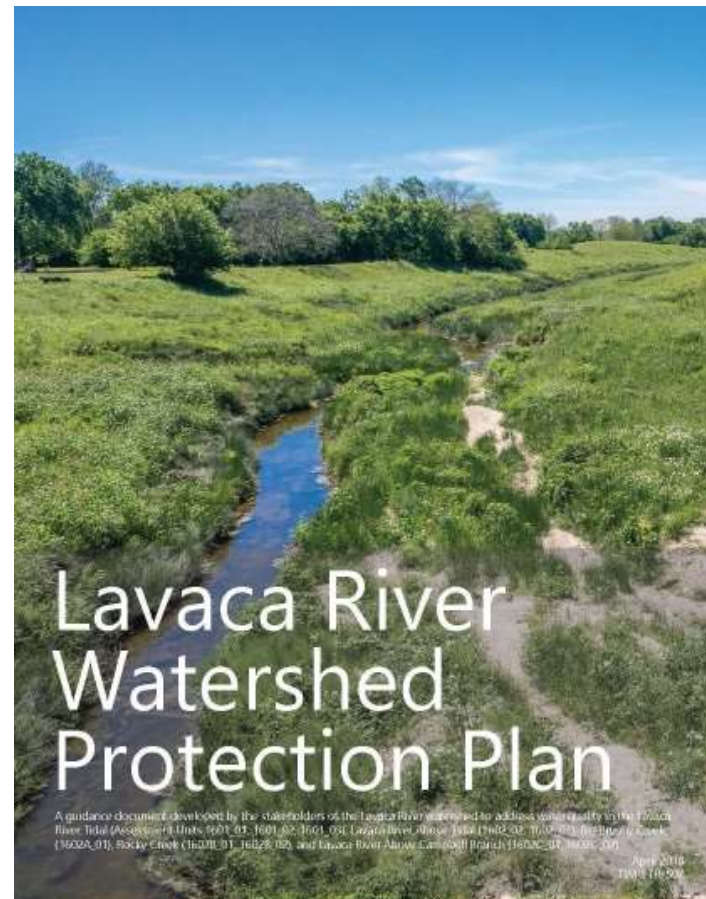
# TEXAS + WATER

A CO-PUBLICATION OF



# LAVACA RIVER WPP

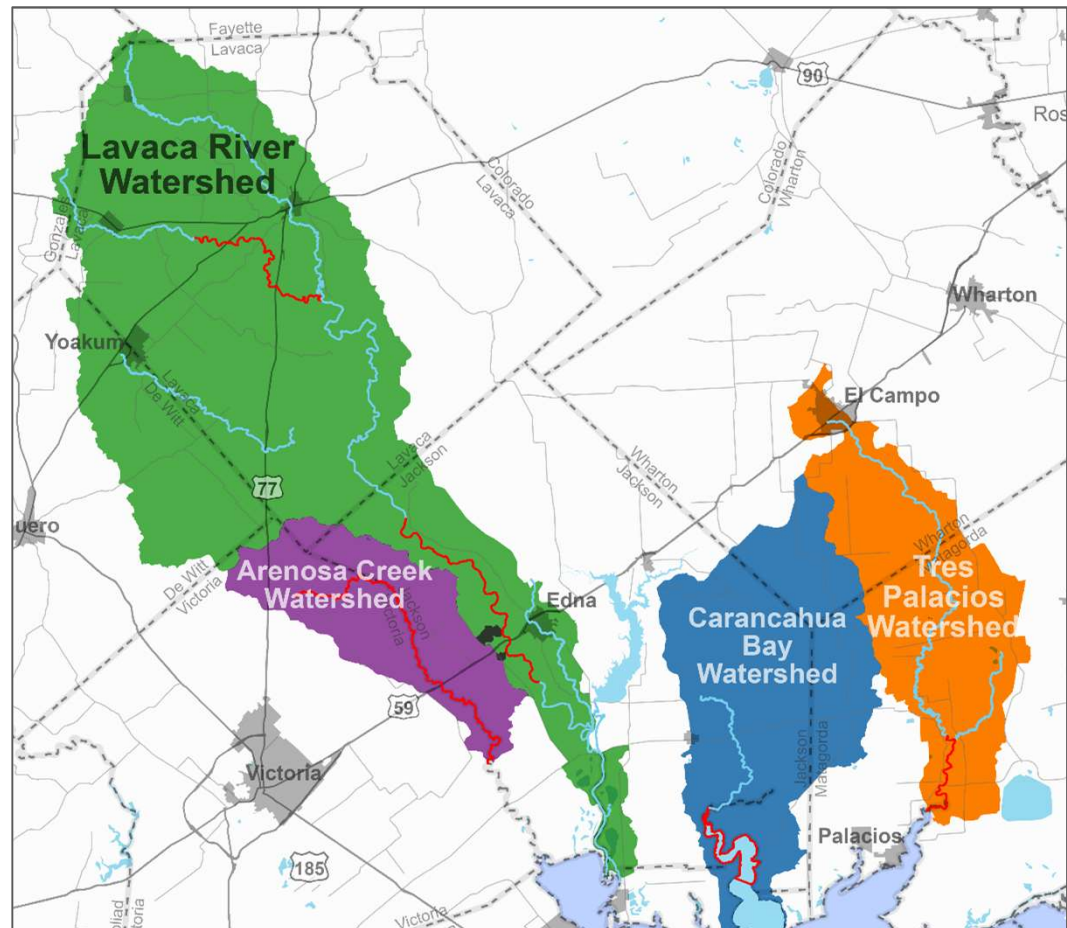
- Lavaca River and Rocky Creek
  - impaired due to elevated levels of bacteria, especially *E. coli*.
  - Low dissolved oxygen
- Plan developed by TWRI and watershed residents, and was accepted in April 2018 by the EPA
- Our goal is to educate residents on how they can protect their water resources through **voluntary** management measures.
- WPP covers:
  - General watershed management
  - Characterizes the Lavaca River watershed
  - Water quality standards
  - Pollutant sources in the watershed
  - Education and outreach efforts
  - Identifies potential resources/funding





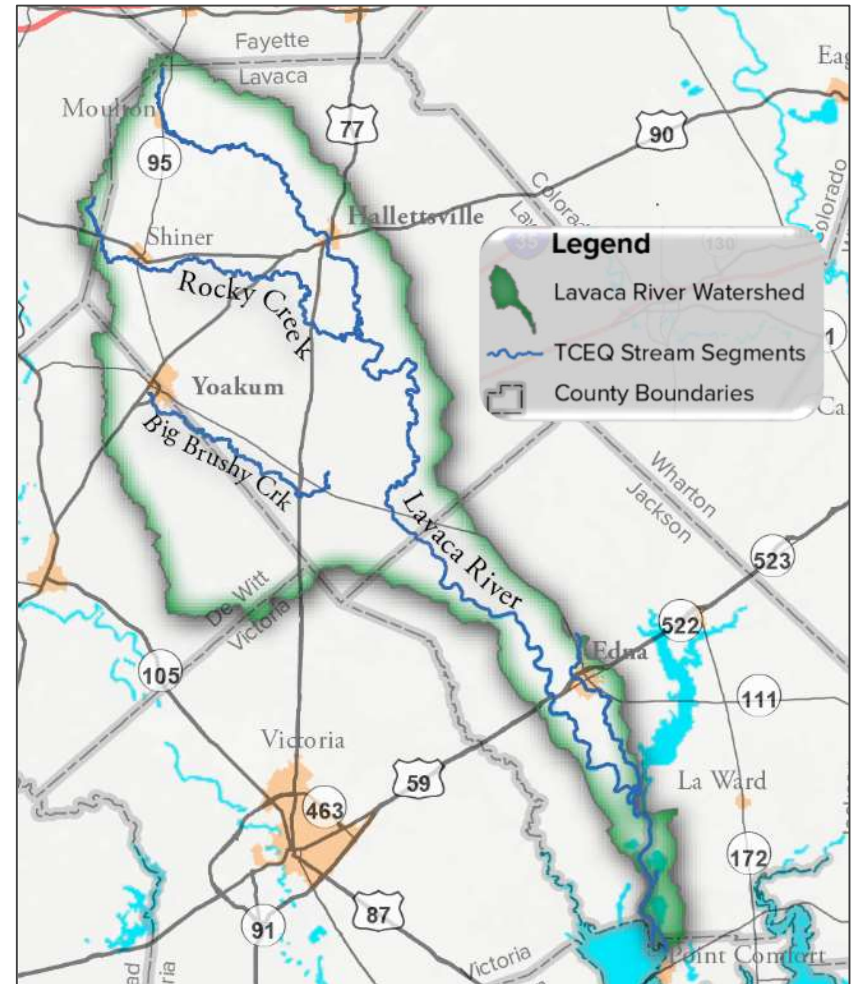
# MATAGORDA BASIN WPPs

- Tres Palacios Creek
  - WPP Implementation ongoing
- Carancahua Bay
  - WPP recently accepted, proposal submitted for 319 funding
- Arenosa & Garcitas Creek
  - WPP still under review



# LAVACA RIVER & ROCKY CREEK WPP IMPLEMENTATION PROJECT

- Funded by a Clean Water Act 319(h) grant through TCEQ from EPA
- Educational programs to encourage implementation of BMPs
  - Livestock, Feral Hog, OSSFs, Pet waste, Urban stormwater runoff, and dumping
  - February 2020 – Landowner Riparian Workshop
  - August 2020 – Healthy Lawns, Healthy Waters
  - October 2020, Date TBA – Texas Watershed Stewards
- Monthly Water Quality Monitoring
  - Lavaca-Navidad River Authority

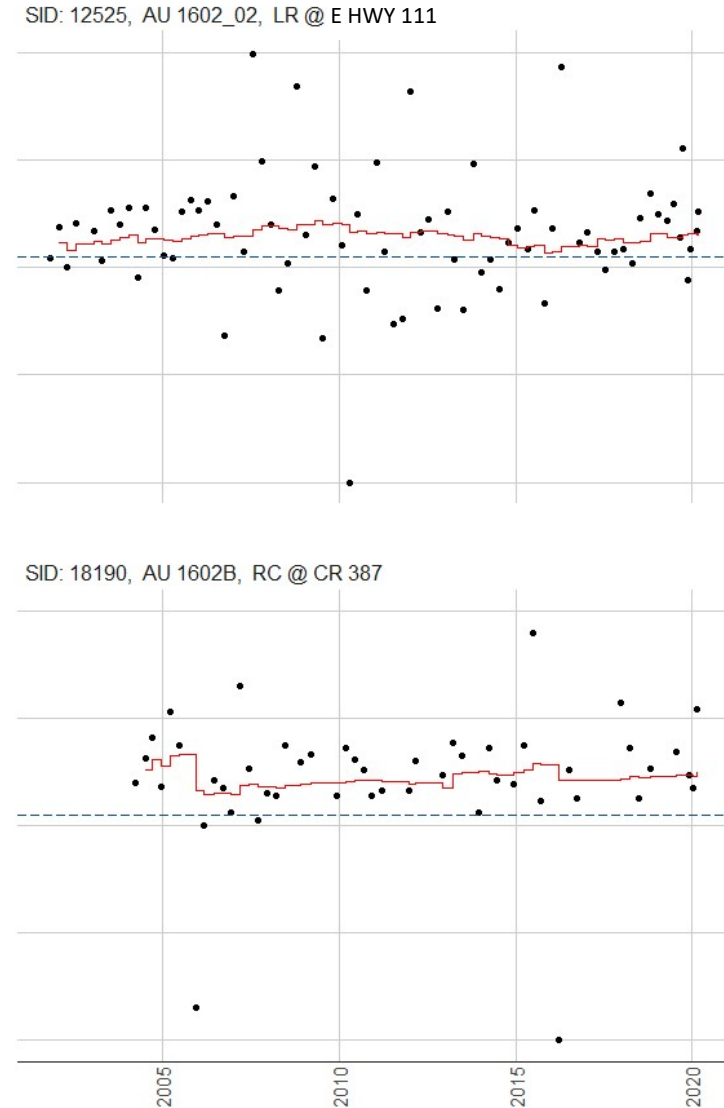
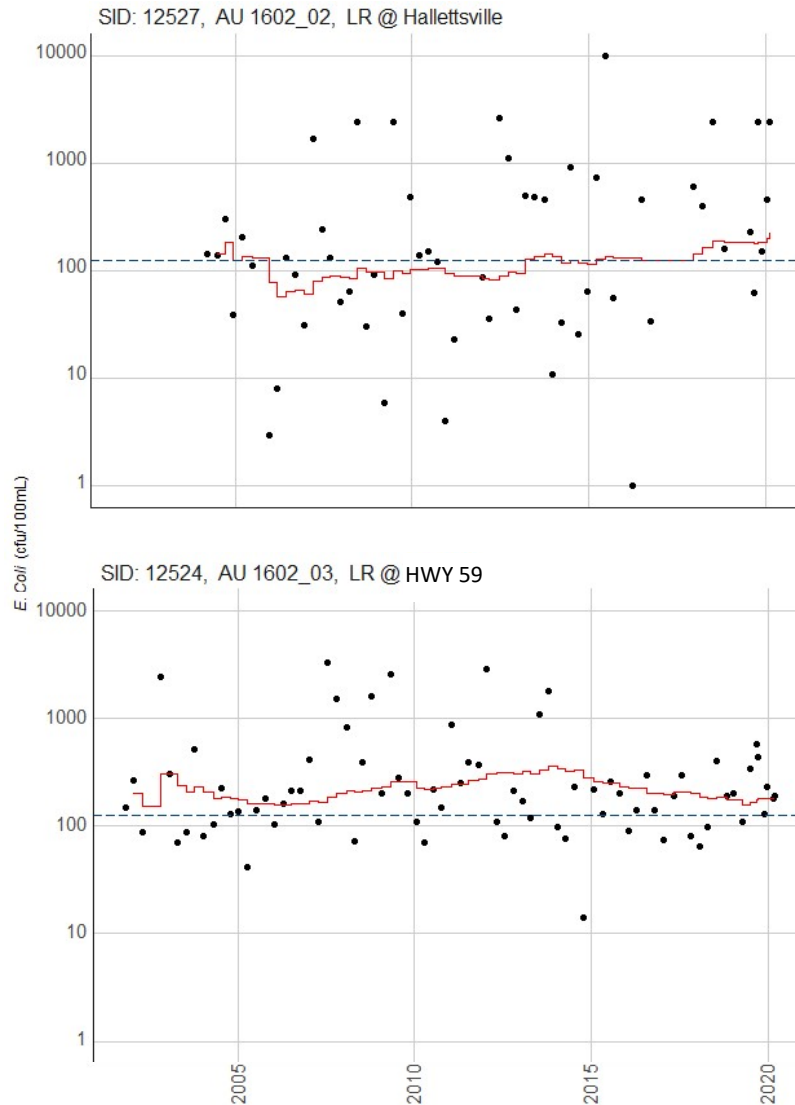


Lavaca River  
Watershed Protection Plan

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# Historical Water Quality Data

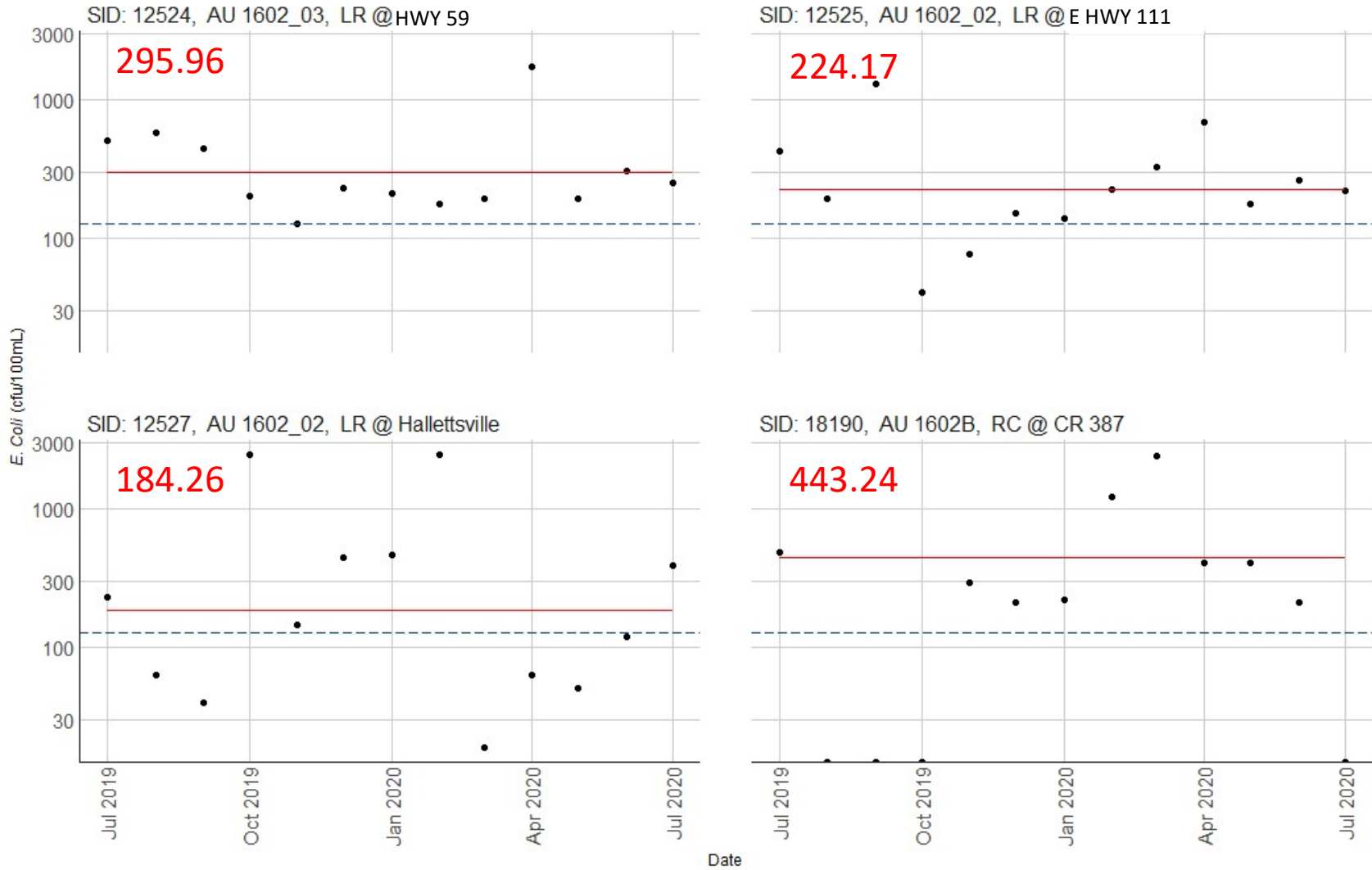
Historical E. coli Data for Lavaca River & Rocky Creek



• Measured Value    — 7-year rolling geomean  
- - Geomean criterion (126 cfu/100mL)

# WPP Water Quality Data, July '19 – July '20

WPP E. coli Data for Lavaca River & Rocky Creek



--- Geomean criterion (126 cfu/100mL)      • Measured Value  
--- Year 1 Geomean



# DIRECT MAILER CAMPAIGNS


- Distributed to Lavaca County landowners based on Land Use classifications
- Pre- and post-evaluation with four educational mailers
- Jackson County OSSF direct mailer campaign planned for 2021

## AM I PROPERLY STOCKED?

**OVERSTOCKING INDICATORS:**

- Bare patches
- Visible hooves from a distance
- Noticeable manure from a distance
- Weed encroachment


**Overgrazed: hooves and manure visible at a distance.**



**ADVANTAGES TO APPROPRIATELY STOCKING:**

- Protection of soil & water resources
- Drought resilience
- Decrease in feeding costs
- Increase forage production
- Higher body scores

**Appropriate stocking rates: adequate forage & root growth.**




**OVERSTOCKING CAN LEAD TO:**

- Susceptibility to drought
- Increased feeding costs
- Increased soil erosion & rainfall runoff
- Decreased forage production
- Increased external parasites

**ACHIEVE APPROPRIATE STOCKING RATES THROUGH:**

- Developing a grazing plan
- Resting your pasture & allowing for recovery
- Cross fencing
- Adding shade structures & fresh water sources
- Stocking according to YOUR grazable acres



**Overgrazed vs. Not Overgrazed**

**WHO CAN HELP?** →

\*All photos taken in October 2019 on neighboring properties. TAMU IRB NUMBER: IRB2020-0058 IRB APPROVAL DATE: 04/20/2020



# NEWSLETTER

- Annual Summer newsletter distributed via e-mail (and printed for face-to-face meetings!)
- Other e-mails include events and programs
- Subscribe on the watershed website: <http://matagorda.tamu.edu/lavaca>



Healthy Lawns Healthy Waters

August 11, Edna, TX. [Register here](#) Learn how to design and install rainwater harvesting systems, how to choose climate- and soil-appropriate turf and landscaping species, the importance of soil testing, and more at this half-day educational program. Due to face-to-face meeting restrictions, this event will be held as an online webinar.

## Summer 2020 Newsletter

Published by the [Texas Water Resources Institute](#)

Howdy, Lavaca River Watershed residents and partners!

I hope that your spring has been going as well as it could be considering the changes and disruptions to many of our normal routines. Although our planned education programs for the spring and early summer may have been postponed, the Lavaca-Navidad River Authority continues to monitor water quality in the Lavaca River and Rocky Creek for the [Lavaca River Watershed Protection Plan \(WPP\) implementation program](#) as well as the [Clean Rivers Program](#). This newsletter contains information for upcoming events happening in the watershed later in the summer (we hope!) as well as some online resources you might find interesting. I hope that the rest of your summer is full of fun, safe activities and that we'll be able to gather together for public meetings and educational programs again soon.

**STOCKED?**

**ADVANTAGES TO APPROPRIATELY STOCKING:**

- Protection of soil & water resources
- Drought resilience
- Decrease in feeding costs
- Increase forage production
- Higher body scores

**ACHIEVE APPROPRIATE STOCKING BARETHROUGH:**

- Developing a grazing plan
- Steeping your pasture & allowing for recovery
- Cross feeding
- Adding shade structures & fresh water sources
- Stocking according to YOUR grazable acres

**Lavaca County Landowners Direct Mailer**

If you are a landowner with 10+ acres in Lavaca County, you will be receiving a series of educational postcards and surveys. Be on the lookout for the stocking rate postcard coming in August that will include technical and financial assistance information. A pre-survey was sent, and a follow-up post-survey will be sent in the next few weeks. Contact Dr. Allen Barthold at [barthold@tamu.edu](mailto:barthold@tamu.edu) with questions.



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# Questions?

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