



Clean Rivers Program Update Upper Medina River Watershed

Presented by

Clinton Carter, Field Operations Manger

Bandera County River Authority and Groundwater District



Bandera County

River Authority & Groundwater District

Protecting & Preserving our Natural Resources

“The principle mission of the Bandera County River Authority and Groundwater District is to protect and preserve the county’s water and natural resources for the State of Texas. The District is also tasked with maintaining local accountability of the county’s water resources to help safeguard the property rights of the citizens of Bandera County.”

Overview

1. Drought Impacts
2. Water Quality Issues
3. Current Projects and Future Direction



Clean Rivers Program Partners

San Antonio River Authority (SARA) Nueces River Authority (NRA)

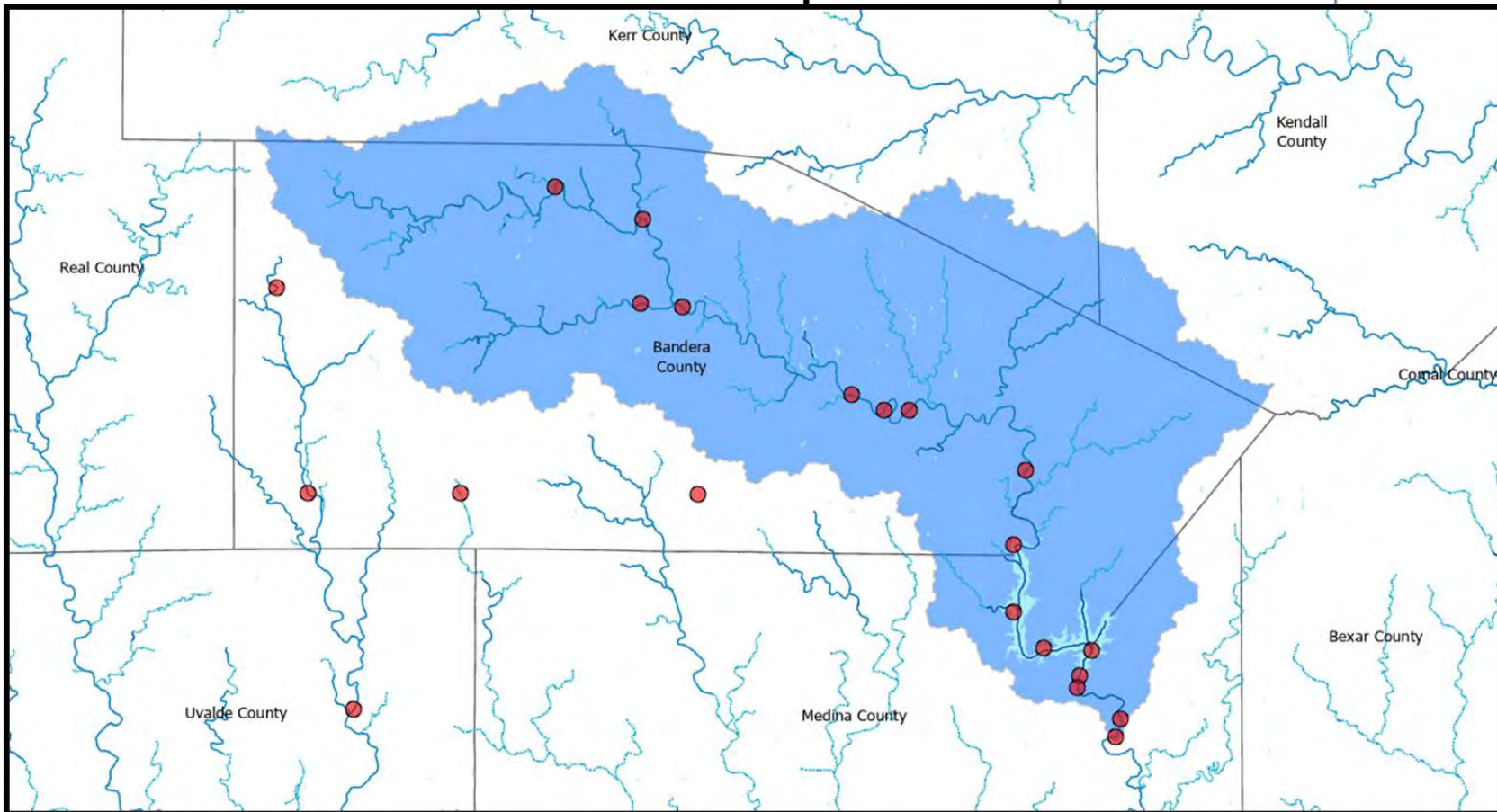
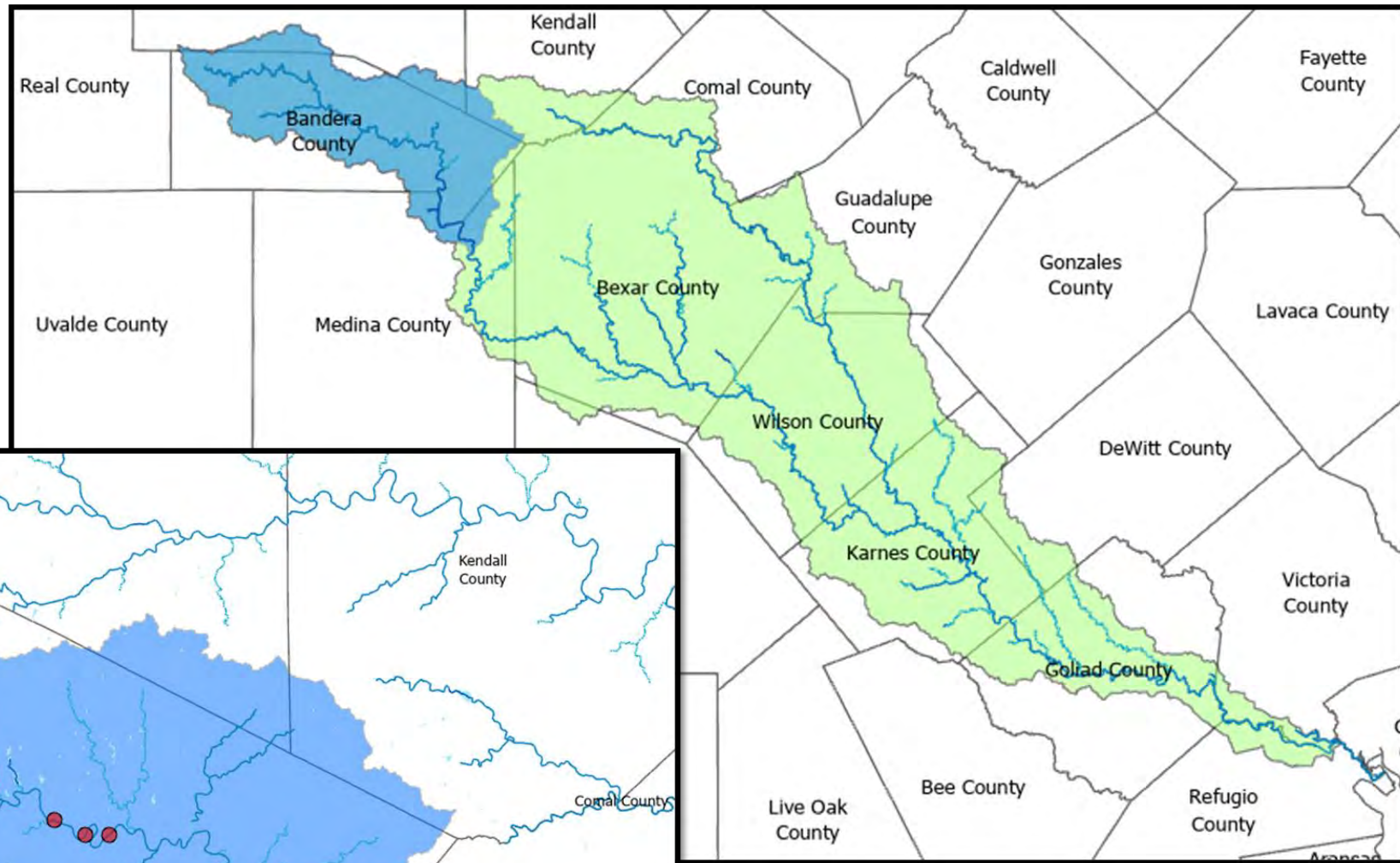
Bandera County River Authority and Groundwater District (BCRAGD) began its participation in the Clean Rivers Program during the Summer of 2012. Since then, its involvement has expanded from the Medina River to Medina Lake, Diversion Lake and the Nueces Watershed in September 2016.



BCRAGD CRP Sites:

San Antonio Basin: 16 Sites

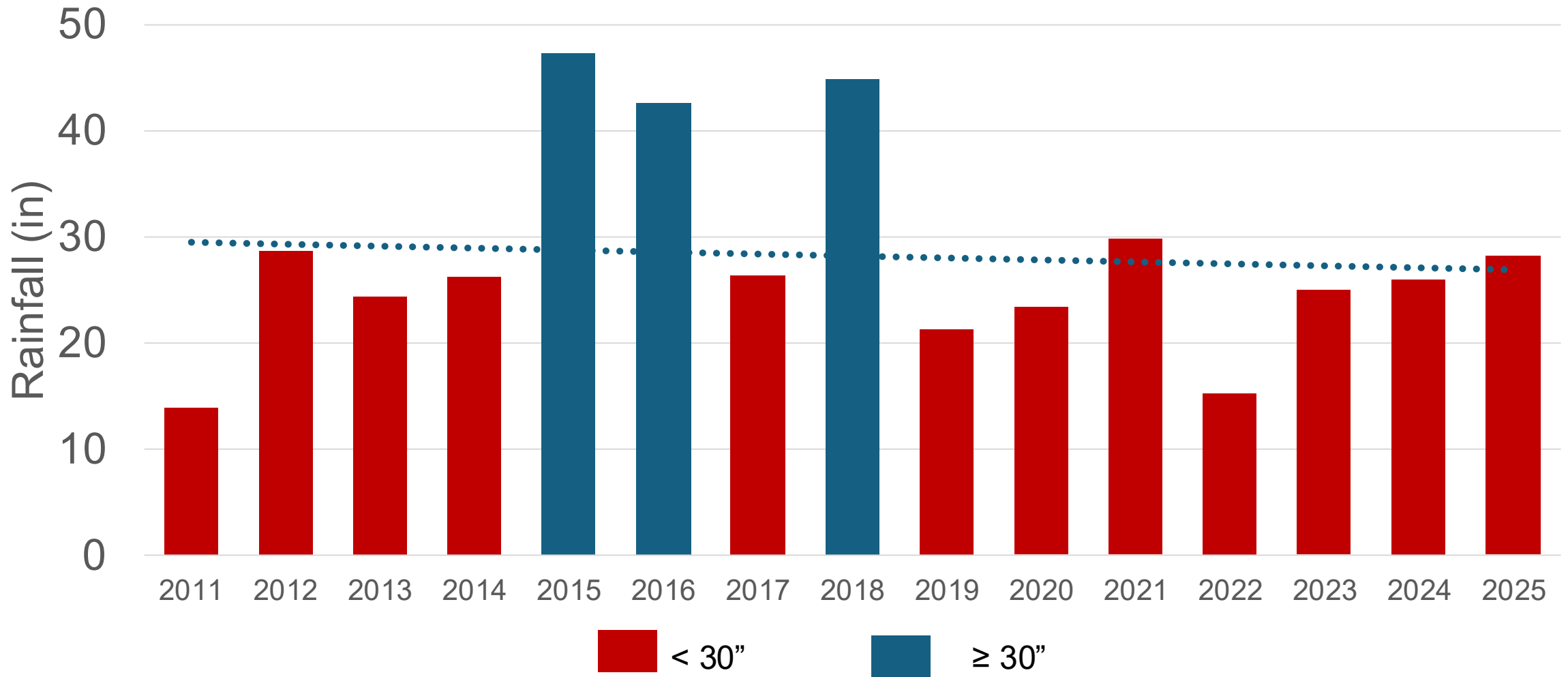
Nueces Basin: 5 Sites



6 Reservoir Sites

15 Riverine Sites

Bandera County Annual Rainfall Totals 2011-2025



12 Years of Below Average Rainfall Since the Drought of 2011

TO ALL TO WHOM THESE PRESENTS SHALL COME:

WHEREAS, I, GREG ABBOTT, Governor of the State of Texas, issued a disaster proclamation on July 8, 2022, as amended and renewed in a number of subsequent proclamations, certifying that exceptional drought conditions posed a threat of imminent disaster in several counties; and

WHEREAS, the Texas Division of Emergency Management has confirmed that those same drought conditions persist in certain counties in Texas and that the presence of drought conditions in certain counties contributes to increased wildfire danger;

NOW, THEREFORE, in accordance with the authority vested in me by Section 418.014 of the Texas Government Code, I do hereby amend and renew the aforementioned proclamation and declare a disaster in Angelina, Aransas, Atascosa, Austin, Bandera, Bastrop, Bee, Bell, Bexar, Blanco, Borden, Bowie, Brazos, Brewster, Brooks, Burleson, Burnet, Caldwell, Calhoun, Cameron, Cass, Chambers, Cherokee, Childress, Clay, Collingsworth, Colorado, Comal, Comanche, Cottle, Crosby, Dawson, Delta, DeWitt, Dickens, Dimmit, Donley, Duval, Fayette, Floyd, Foard, Fort Bend, Franklin, Frio, Gaines, Garza, Gillespie, Goliad, Gonzales, Grayson, Grimes, Guadalupe, Hall, Hardeman, Hardin, Hays, Hidalgo, Hopkins, Houston, Howard, Jackson, Jasper, Jim Hogg, Jim Wells, Karnes, Kendall, Kenedy, Kent, Kerr, King, Kinney, Kleberg, Knox, La Salle, Lamar, Lavaca, Lee, Leon, Liberty, Live Oak, Llano, Lubbock, Lynn, Madison, Matagorda, Maverick, McMullen, Medina, Milam, Montgomery, Morris, Motley, Nacogdoches, Nueces, Panola, Pecos, Polk, Presidio, Real, Red River, Refugio, Robertson, Rusk, Sabine, San Jacinto, San Patricio, Scurry, Shelby, Starr, Titus, Travis, Trinity, Tyler, Uvalde, Victoria, Walker, Waller, Washington, Webb, Wharton, Willacy, Williamson, Wilson, Zapata, and Zavala Counties.



IN TESTIMONY WHEREOF, I have hereunto signed my name and have officially caused the Seal of State to be affixed at my office in the City of Austin, Texas, this the 18th day of March, 2026.


GREG ABBOTT
Governor

ATTESTED BY:


JANE NELSON
Secretary of State

FILED IN THE OFFICE OF THE
TEXAS SECRETARY OF STATE
9:53 AM - 2026

MAR 18 2026

PROCLAMATION

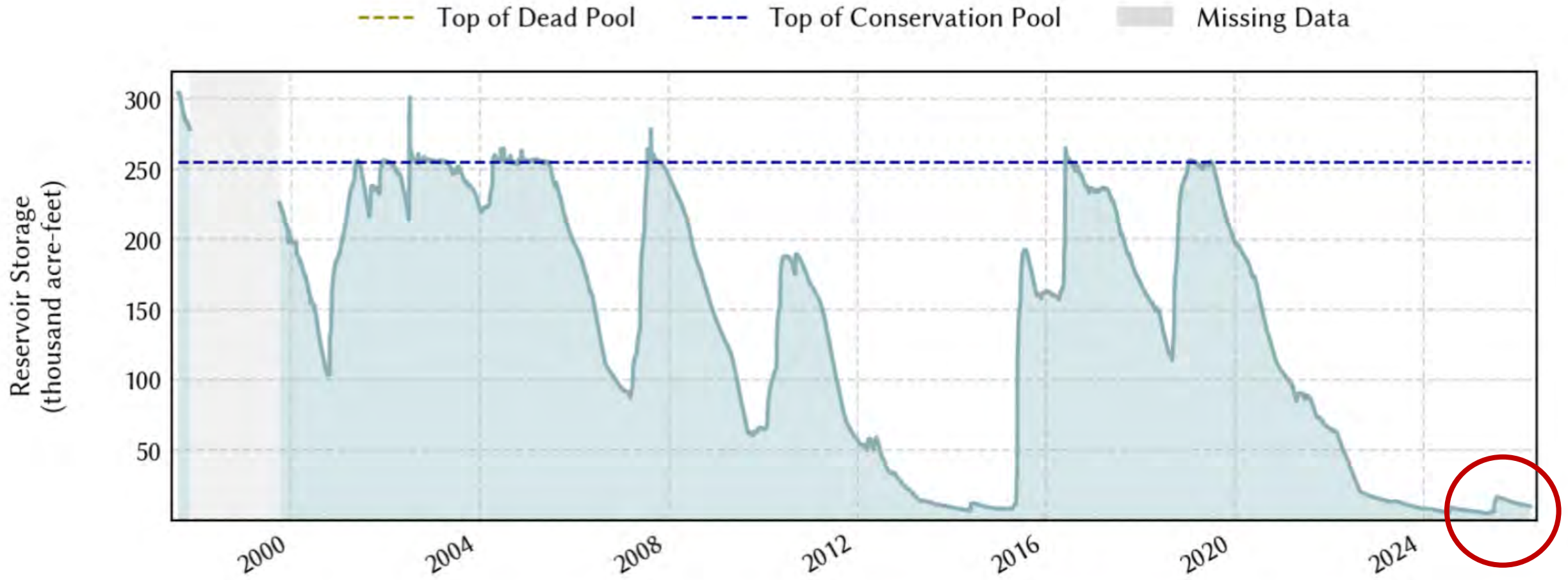
BY THE

Governor of the State of Texas

“...I authorize the use of all available resources of state government and of political subdivisions that are reasonably necessary to cope with this disaster.”

March 18th, 2026

Medina Lake Period of Record 1997-2006





Medina Lake at 3.9% Capacity (as of 4/8/26): -87.37 feet below conservation pool.



Medina River Downstream of Diversion Dam July 2023
TCEQ-12824

Premature Dormancy: Exacerbating the effects of a changing landscape through decreased carbon sequestration

Medina River Downstream of Diversion Dam July 2024
TCEQ-12824



Medina River Downstream of Diversion Dam August 2025
TCEQ-12824



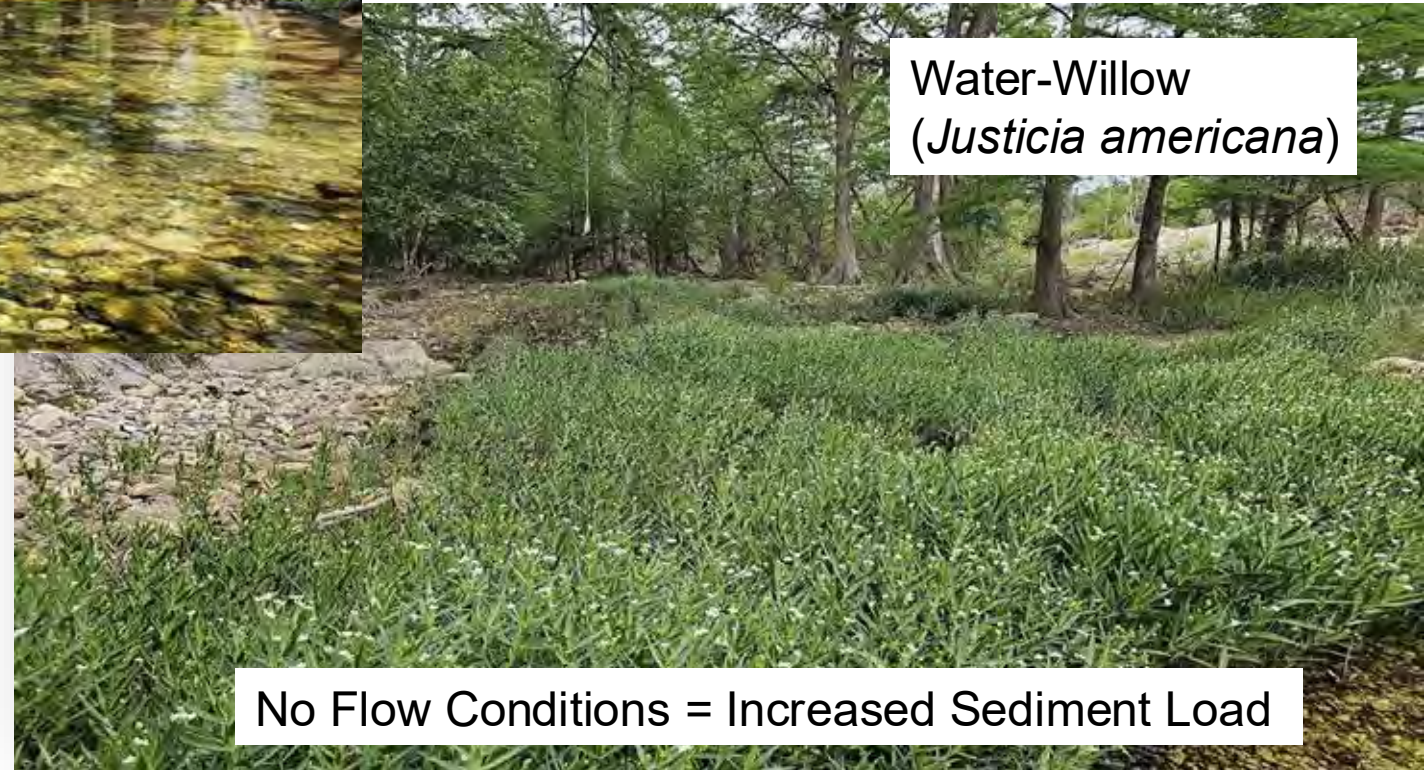
Normal Flow Conditions = Clear Cobble Streambed



N. Prong Medina River
at Wallace Creek

TCEQ-18447

Water-Willow
(*Justicia americana*)



Sediment deposition provides habitat for dense colony forming species which continue to trap sediment and increase suitable habitat.

No Flow Conditions = Increased Sediment Load

Shift in Species Composition: Invasive Species Decreasing Recreational Quality

N. Prong Medina River at Wallace Creek
July 2025



N. Prong Medina River at Wallace Creek
January 2026



Impairment Listing

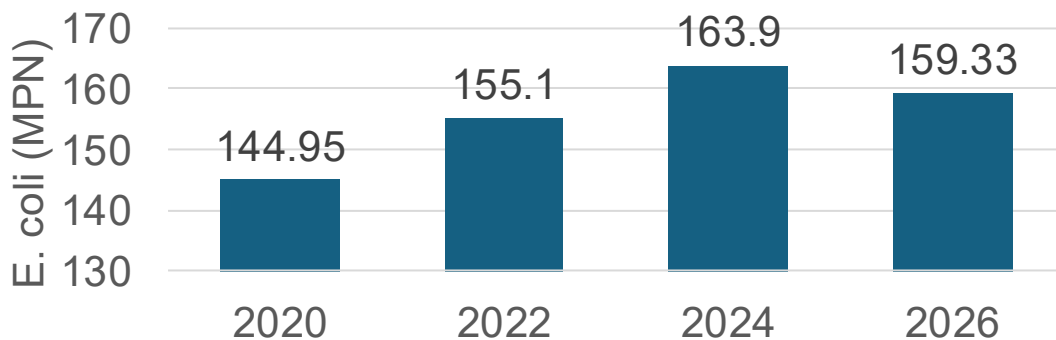
A portion of Medina River is classified as impaired for contact recreation under Section 303(d) of the Clean Water Act.

Mayan Ranch (TCEQ-21631)

Bandera City Park (TCEQ-13638)

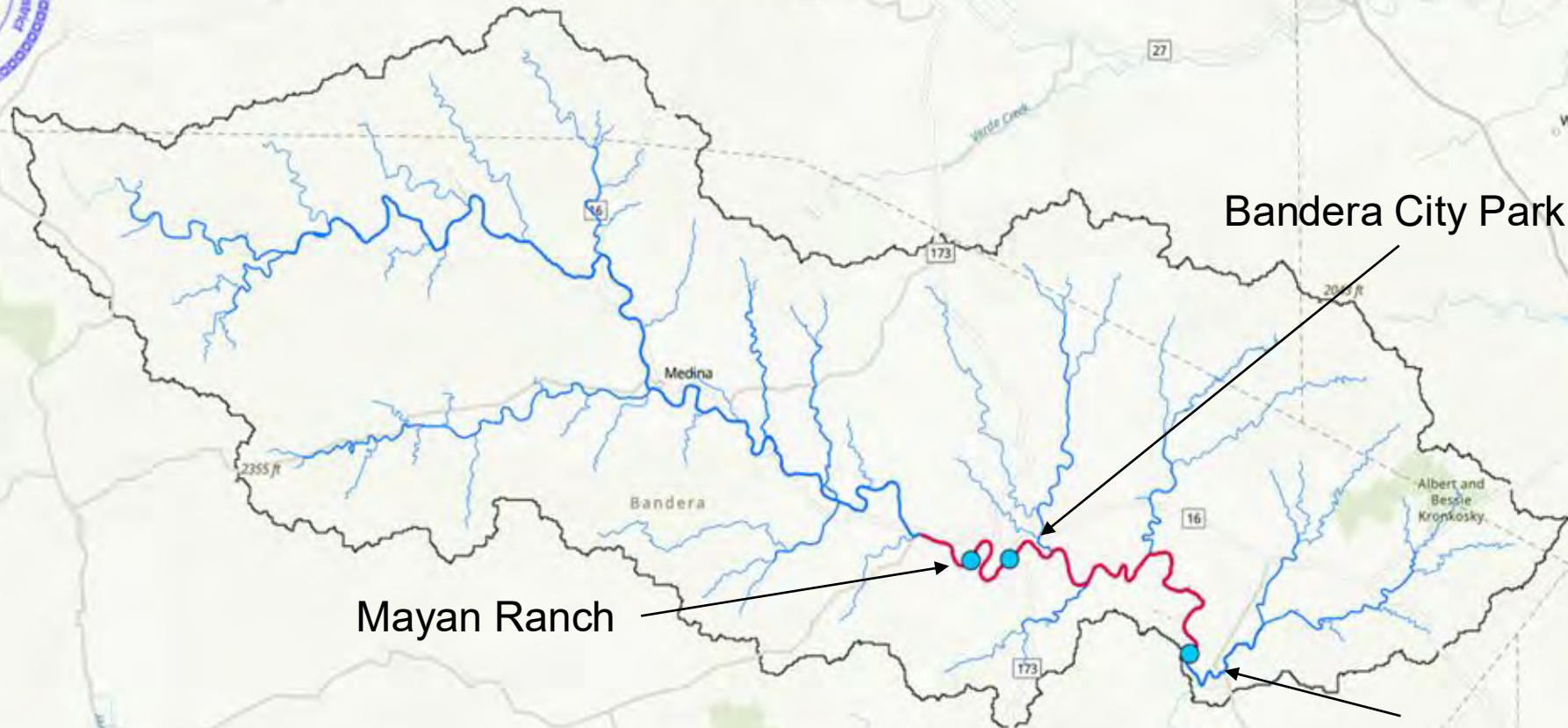
English Crossing (TCEQ-12830)

Bacteria Assessment Results
AU 1905_01



Impaired Segment of the Medina River

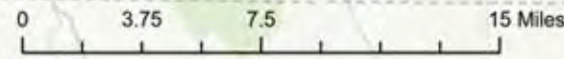
CRP Sampling Sites



Bandera City Park

Mayan Ranch

English Crossing



Bacterial Source Tracking

Grant funds awarded through the Texas Nonpoint Source Grant Program
FY 2024-2025

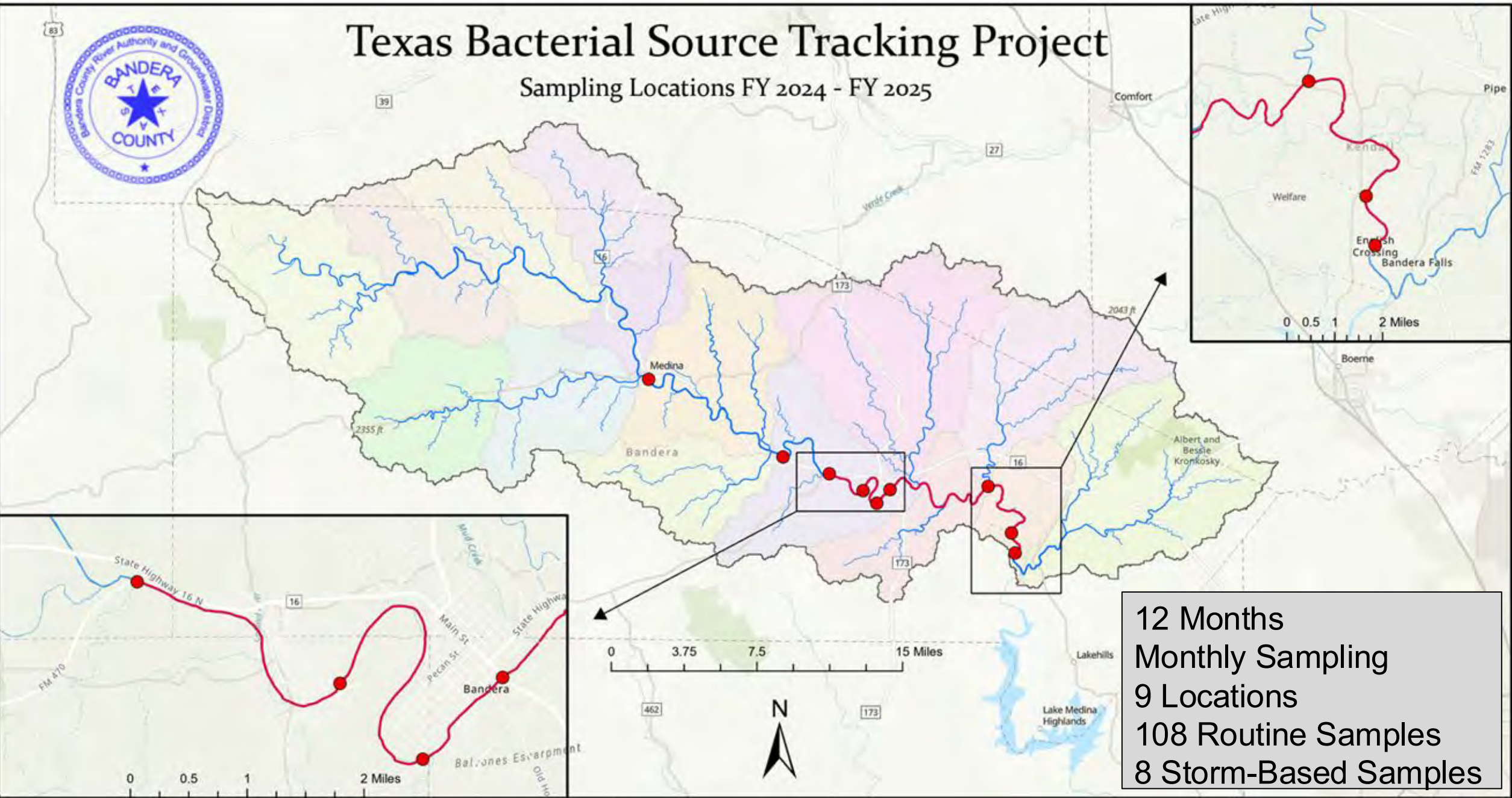
- Texas State Soil and Water Conservation Board
- Texas Water Resources Institute
- University of Texas Health Science Center Texas
- A&M AgriLife Research, Department of Soil and Crop Sciences
- Schreiner University

Total Grant Funds: \$510,735



Texas Bacterial Source Tracking Project

Sampling Locations FY 2024 - FY 2025



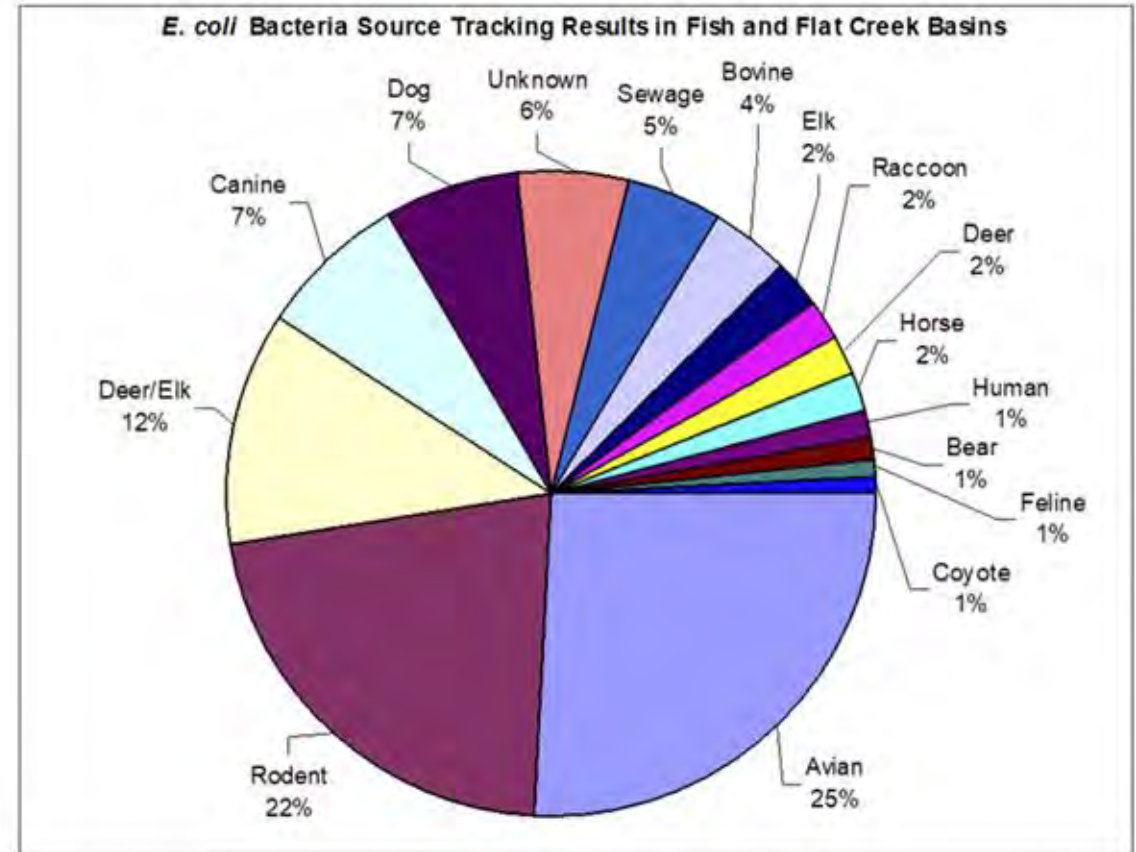
12 Months
Monthly Sampling
9 Locations
108 Routine Samples
8 Storm-Based Samples

Bacterial Source Tracking Program FY 2024-2025

Objectives:

- Bacterial Source Tracking
- Expanding Texas *E. coli* Library
- Evaluating Next Generation Sequencing (NGS) Approach to Pathogen Characterization
- Developing Quantitative Microbial Risk Assessment (QMRA)

Example of Results



www.tetonconservation.org

Benefits: Watershed Characterization, Informed Decisions, Supported Remediation

BACTERIAL SOURCE TRACKING

Results Information session

April 14, 2026

10:00 AM

Bandera County River
Authority &
Groundwater District
Office

440 FM 3240
Bandera, TX 78003

QMRA analysis integrating BST results for the Medina River Watershed Above Medina Lake.

Come learn about the Bacterial Source Tracking Project in Bandera County, and the data that resulted from it!

Guest speaker is **Terry J. Gentry, Ph.D.** (Texas A&M): Specializes in soil/aquatic microbiology and bioremediation.



www.bcragd.org | (830) 796 - 7260

QMRA analysis integrating BST results for the Medina River Watershed above Medina Lake

Where?

BCRAGD Office: 440 FM 3240 Bandera, TX 78003

When?

April 14, 2026 (Tuesday) at 10:00 am

Thank you!

For more information please contact:

Clinton Carter, PSM

Watershed Ecologist | Field Operations Manager

Bandera County River Authority & Groundwater District

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Bandera County
River Authority & Groundwater District
Protecting & Preserving our Natural Resources

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