

Arroyo Colorado Watershed Project Updates

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Texas Water Resources Institute

August 4, 2026



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Texas Water Resources Institute (TWRI)

A unit of Texas A&M AgriLife Research established in 1952

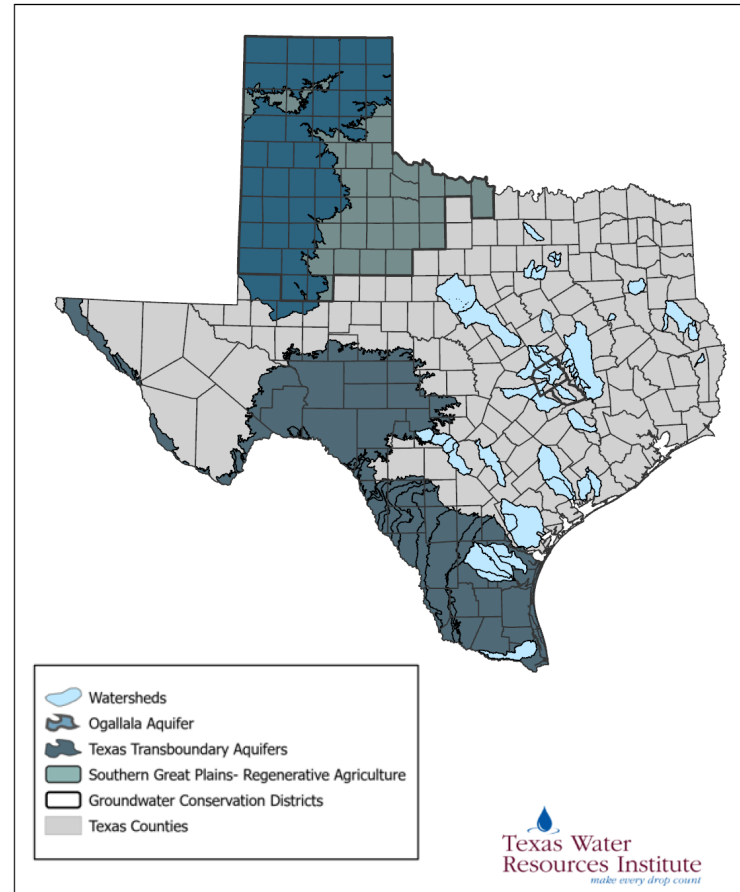
Designated as the state's official water resources research institute in 1964

"...coordinate, facilitate, and deliver science-based, community-supported solutions for current and future water challenges..."



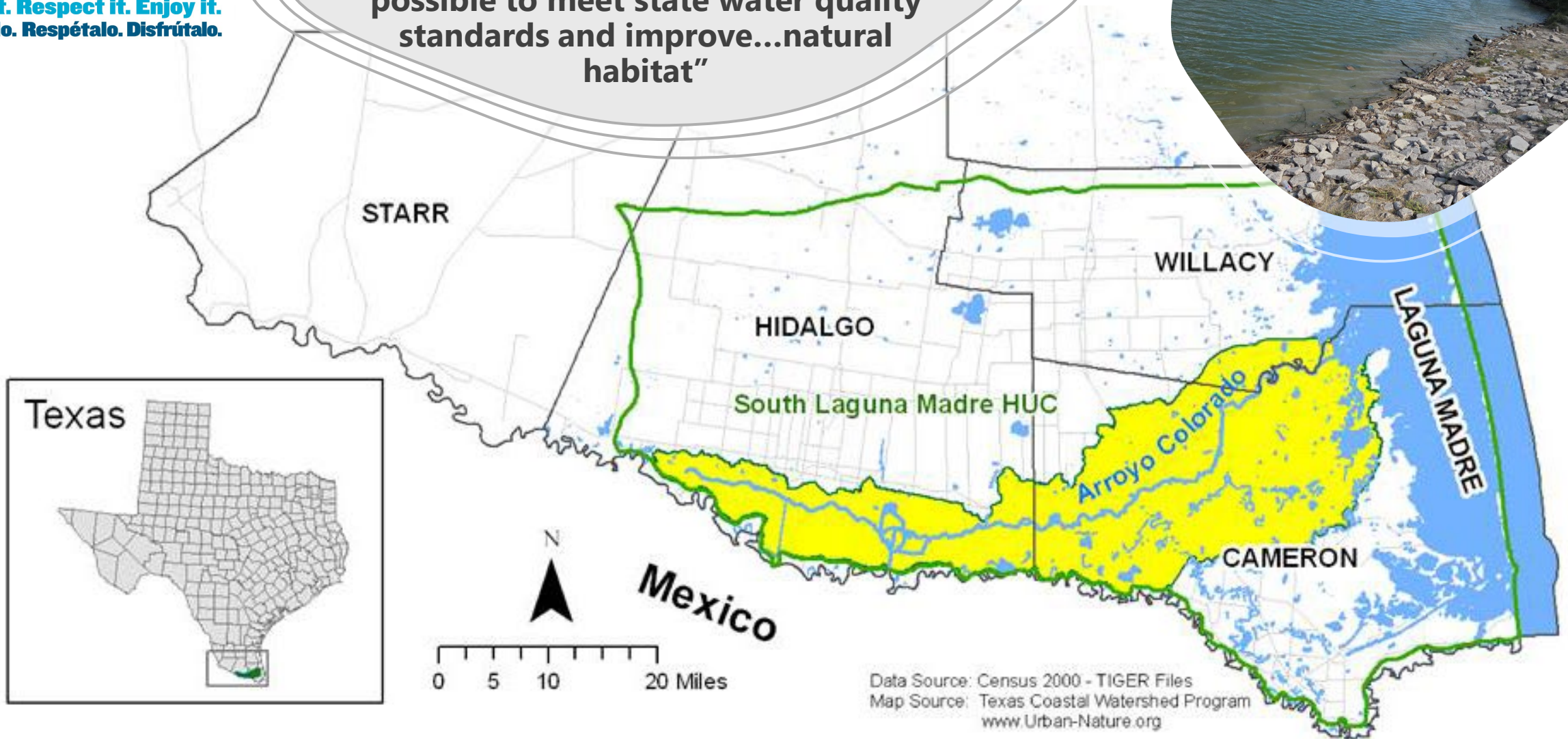
Update to the
Arroyo Colorado
Watershed Protection Plan

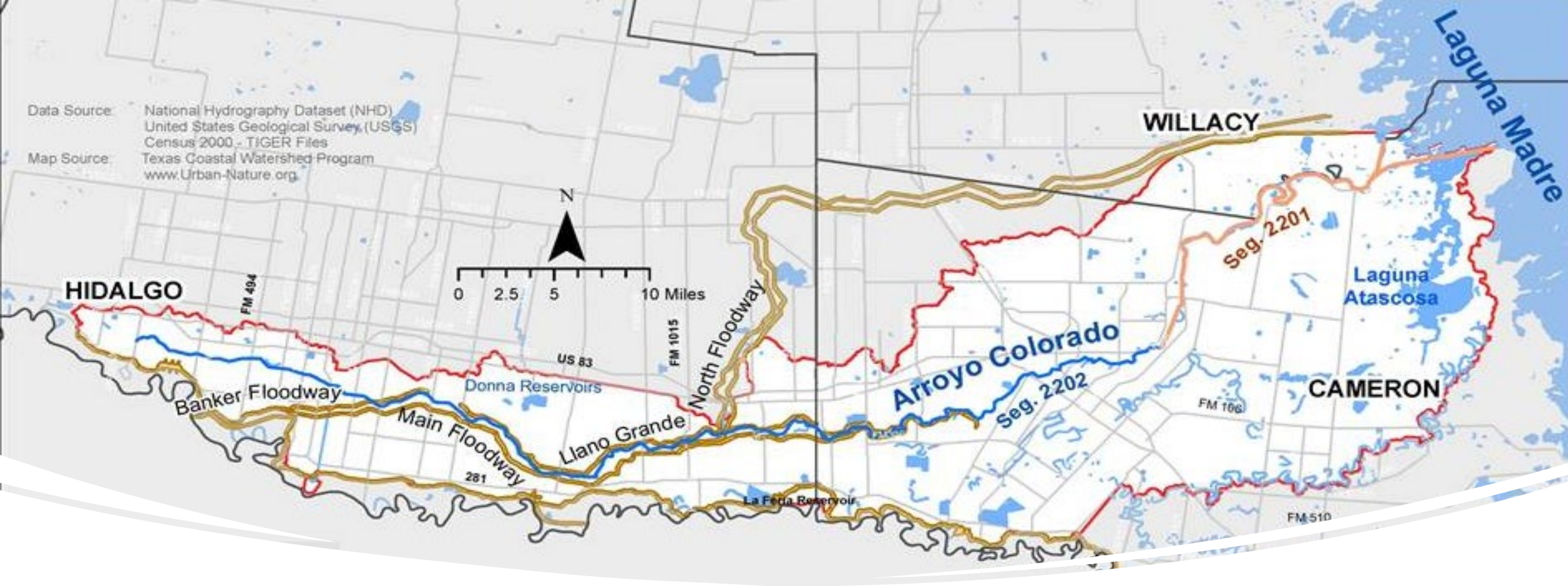
August 2017
TWRI TR-504





Arroyo Colorado WPP highlights
best management practices that
“...reduce the additions of
pollutants...to the maximum extent
possible to meet state water quality
standards and improve...natural
habitat”





The Arroyo Colorado has:

- a freshwater segment (SegID 2202) that is impaired with elevated bacteria
- a tidal segment (SegID 2201) that is impaired with low dissolved oxygen and elevated bacteria
- Both segments have concerns for high nutrient concentrations

Current Projects



TEXAS STATE

Soil & Water

CONSERVATION BOARD



Current TCEQ Project – ends 8/31/2026



Photo Credit – Crystal Valdez/ LRGVDC



- Community signage about the Arroyo Colorado
- Texas Riparian and Stream Ecosystem Workshop
- Rio Hondo ISD Native Landscape
- WPP Implementation
 - Education & Outreach
 - Cleanups
 - Water quality testing



Photo Credit – Raul Gomez/ Cameron County

Education & Outreach

- Monte Alto ISD
- Mercedes ISD
- Behind the Gates
- Valley Nature summer water program
- Ag Discovery
- 4H Water Ambassadors
- +70 hours of EO in 2026



Rio Hondo Native Landscape



Photo Credit – Ms. Barbosa/ RHISD



- **Green Team established**
- **In partnership with the Native Plant Society of Texas RGV Chapter**
 - Hand-removed weeds/aggressive plants
 - March Maintenance Days
 - August Maintenance
- **Project-Based Learning Materials**
- **TST kits**
 - Water testing at the Spotted Sea Trout Park
- **Educational Signage**
 - Stormwater signage and native plant signs



Photo Credit – Justin LeClaire/ CBEEP



Photo Credit – Amanda De Leon/ TMN



Photo Credit – Yvonne Peck/ Arroyo City Fire Department



Community Clean-Ups

- March 2026
 - 10 volunteers
 - 52 bags of trash collected
- July 2026
 - 40 volunteers
 - 4,200 pounds of trash collected
- October 2026
 - Date TBD
- What more can we do to prevent pollution in the first place?

Photo Credit – Yvonne Peck/ Arroyo City Fire Department

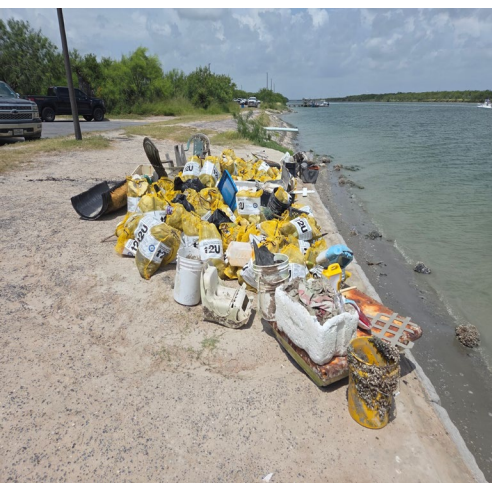


Photo Credit – Yvonne Peck/ Arroyo City Fire Department





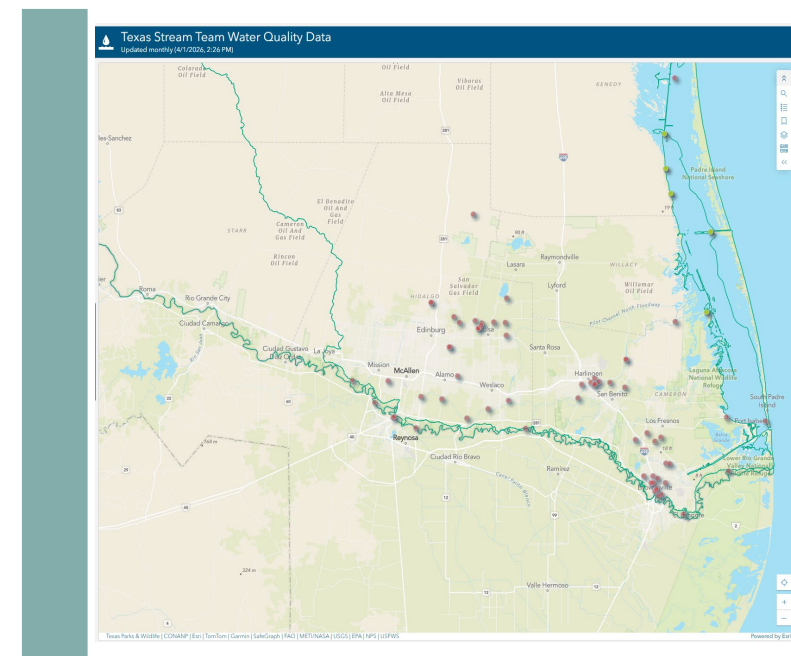
Water Quality Testing



15 certified citizen scientists to monitor Arroyo Colorado



Gain volunteer hours, gain hands on experience, be involved and contribute to water quality data





Current TSSWCB Project

- Educate landowners on best management practices to conserve soil and water resources
- LSHS and Friends Workshop – 6/23/26
 - Free soil and water testing
 - Approximately 45 people in attendance
 - 23 water samples and 17 soil samples were turned in for free testing

New Projects



TEXAS STATE

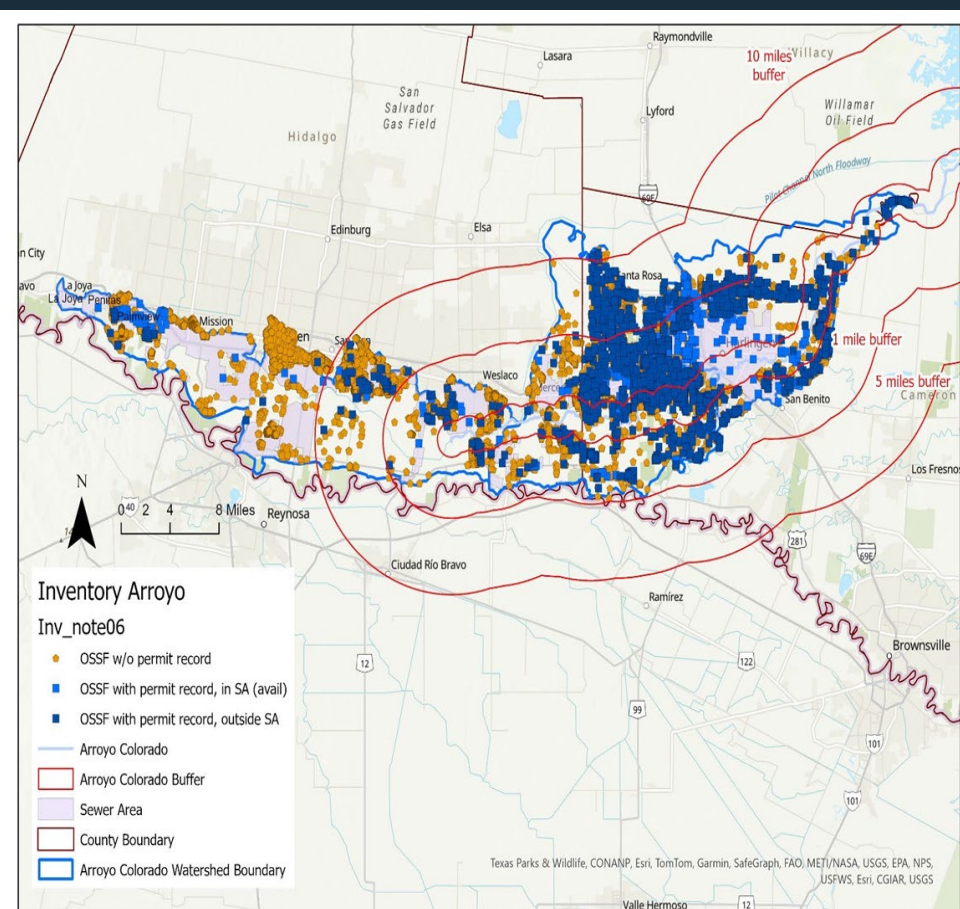
Soil & Water

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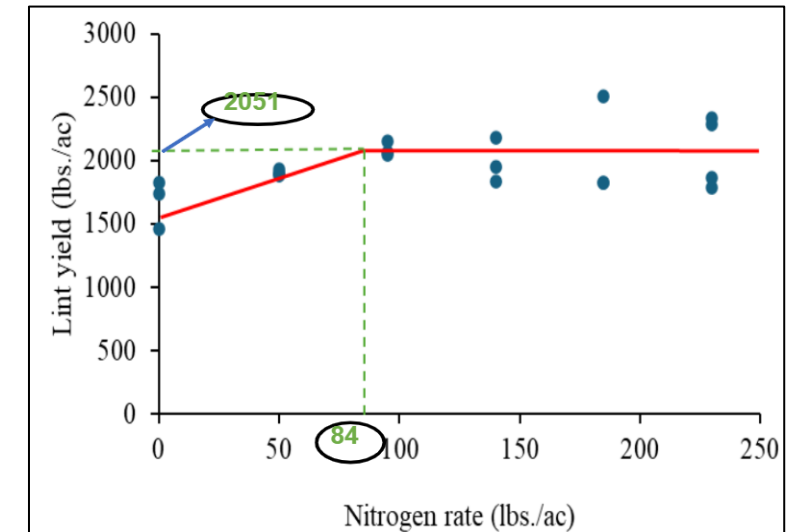
New TCEQ Contract



- Update the Arroyo Colorado Watershed Boundary
 - Need assistance in understanding the drainage network to have an accurate boundary
 - Conveyance networks
 - Geospatial data files
 - Culverts
 - Control structures
 - Flood zone maps
 - Local insights and perspectives
- Continue verifying and updating the inventory of OSSF systems in our watershed-wide geodatabase
- Continue stakeholder engagement and WPP implementation



- Re-establish free soil testing campaigns
 - Planning soil health kickoff meeting
 - Open to all landowners
- Continue field trials at AgriLife Weslaco to update N fertilizer recommendation for cotton
 - Optimal N rate estimated at 84lb./ac corresponding to 2,051 lbs./ac lint
- Run economic analysis of soil testing





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