

Plum Creek Watershed Partnership Watershed Protection Plan 2023 Updates

Guadalupe River Basin
Clean Rivers Program Steering Committee Meeting
April 23, 2023

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Updates on the Watershed and WPP

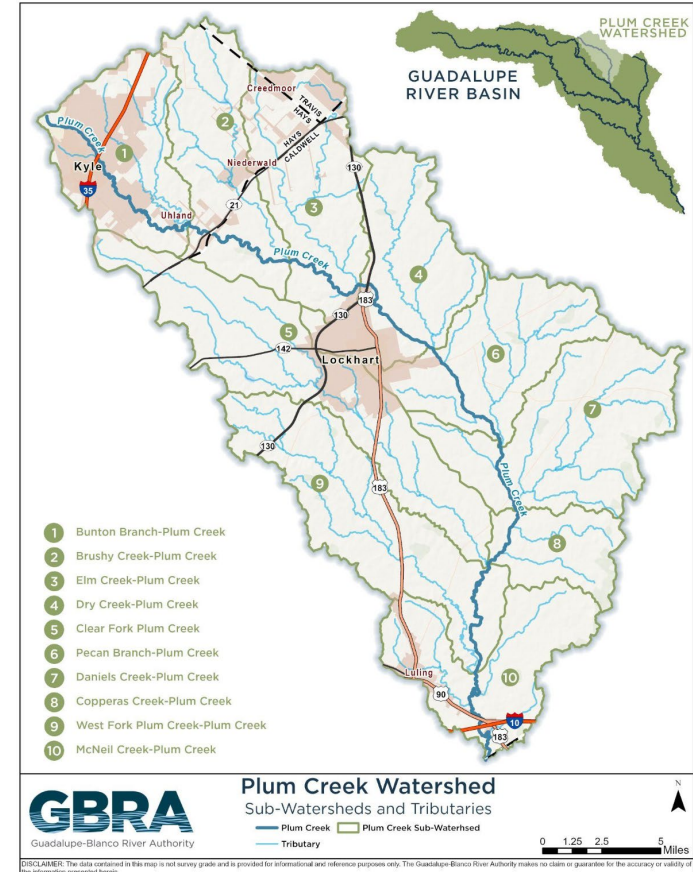
Plum Creek Watershed

The watershed

- Stretches across Hays and Caldwell County and the cities of Kyle, Buda, Uhland, Lockhart and Luling
- ~400 square miles with Plum Creek measuring 52 miles
- Is a significant tributary to the San Marcos River

The issues in the watershed

- Impaired for E. coli bacteria (since 2004)
- Concerns for Nitrate Nitrogen, Ammonia Nitrogen, Total Phosphorus, impaired macrobenthic community, dissolved oxygen, impaired fish community and impaired habitat



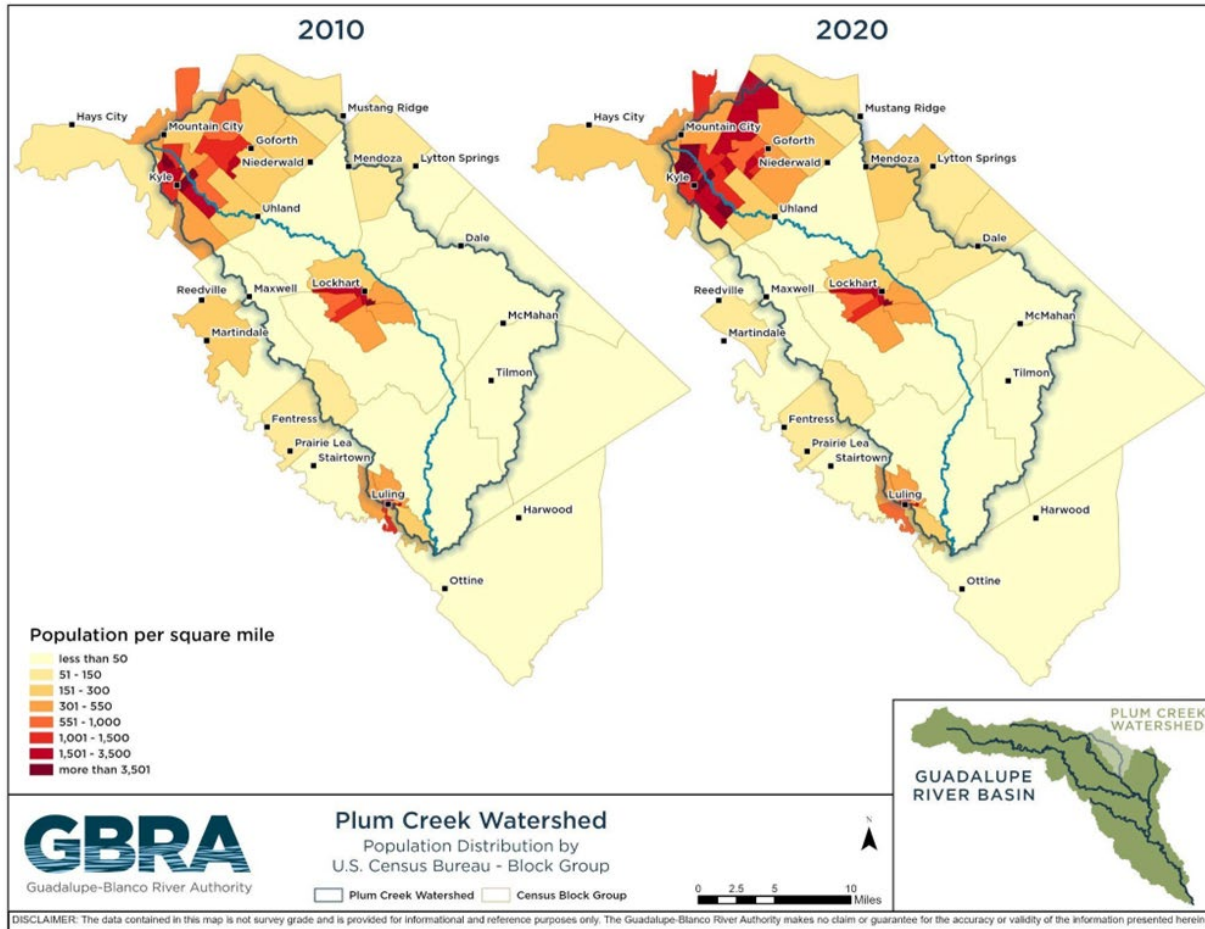


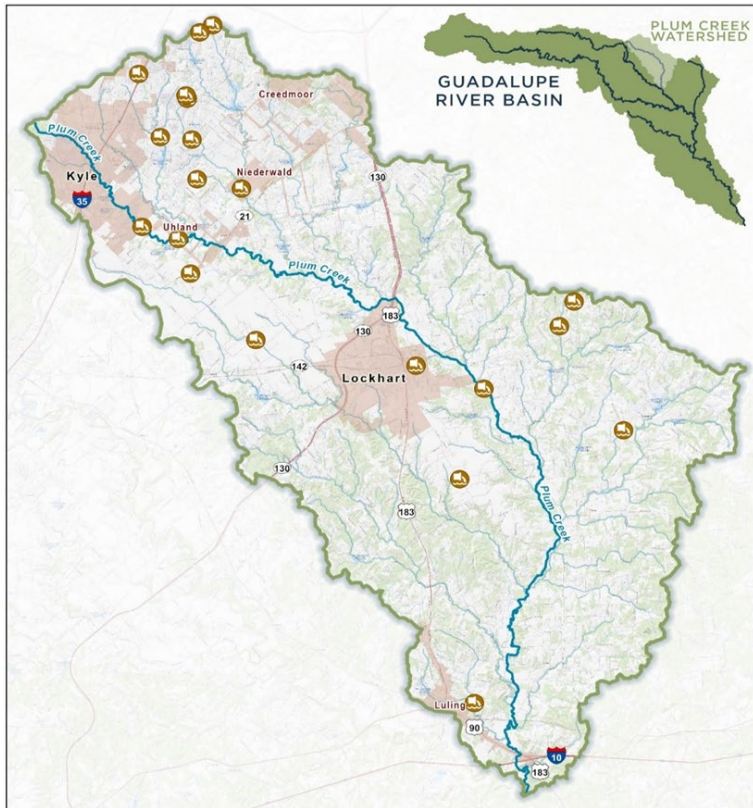
The 2024 Watershed Protection Plan Update

A review on the state of the Plum
Creek Watershed

Every two years the Partnership completes an update to the Plum Creek Watershed Protection Plan (WPP). It is currently in the draft phase and will be released later this year. The update looks at...

- Reviewing Milestones and Measures of Success
- Analyzing water quality trends
- Highlighting what has been done in the watershed through the reporting period





GBRA Plum Creek Watershed
 Guadalupe-Blanco River Authority Permitted Discharges

TCEQ Wastewater Outfalls
 Plum Creek Watershed
 City

0 1.25 2.5 5 Miles

DISCLAIMER: The data contained in this map is not survey grade and is provided for informational and reference purposes only. The Guadalupe-Blanco River Authority makes no claim or guarantee for the accuracy or validity of the information presented herein.



GBRA Plum Creek Watershed
 Guadalupe-Blanco River Authority Water Quality Monitoring

Water Quality Monitoring Site
 USGS Stream Gage
 City
 Plum Creek Watershed

0 1.25 2.5 5 Miles

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2022 Texas Integrated Report - Basin 18

Assessment Unit	Parameter	Status
1810_01 (near confluence with San Marcos River)	<i>E. coli</i> (Geomean) Nitrate (nutrient) Total Phosphorus Fish Community Aquatic Habitat	Nonsupport (4b) Concern for screening level Concern for screening level Nonsupport Concern for screening level
1810_02 (~2.5 miles upstream of confluence with Clear Fork)	<i>E. coli</i> (Geomean) Nitrate (nutrient) Total Phosphorus Fish Community Aquatic Habitat	Nonsupport (4b) Concern for screening level Concern for screening level Use Concern Concern for screening level
1810_03 (~0.5 miles upstream of State Hwy 21)	<i>E. coli</i> (Geomean) Nitrate (nutrient) Total Phosphorus Ammonia Macrobenthic community Fish Kill Report	Nonsupport (4b) Concern for screening level Concern for screening level Concern for screening level Use Concern Use Concern
1810A_01 Town Branch (perennial stream in Lockhart)	<i>E. coli</i> (Geomean) Nitrate (nutrient) Dissolved O2 (grab)	Nonsupport (4b) Concern for screening level Concern for screening level

Since the implementation of the WPP, Plum Creek (segment 1810) continues to be recognized by the State of Texas as impaired for Primary Contact Recreation.

Here listed are the current impairments and concerns in Plum Creek as described in the 2022 Texas Integrated Report by TCEQ.

Highest average concentration of *E. coli* is at the 1810_03 segment



Current Water Quality Trends

Three Main Stem Routine Monitoring Site Trends (June 2013 to June 2023)

Upstream



Downstream

1. No trend in *E coli*.and Total Phosphorus ; Increasing Nitrate
2. No trend in *E coli*, Nitrate and Total Phosphorus; Decreasing trend in Ammonia
3. Decreasing trend in *E coli*.and Nitrate ; No trend in Total Phosphorus

The Plum Creek Watershed Trends

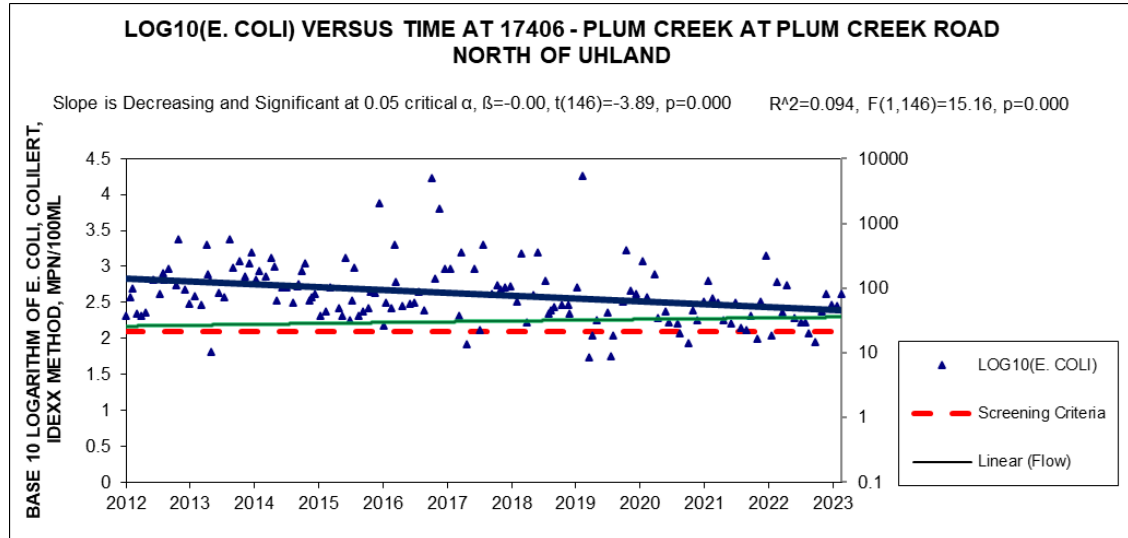
This table shows all three main stem sites for Plum Creek and the trends the water quality parameter recorded.

Site	Water Quality Parameter	Overall Mean	Reporting Period Mean	Difference	Significance of F-test	Interpretation
12640 Plum Creek at CR 135	E. coli	688	213	-69%	0.9705	No significant trend
	Dissolved Oxygen	7.41	7.26	-2%	0.2885	No significant trend
	Nitrate -N	2.62	2.58	-2%	0.0299	Increasing trend
	Total Phosphorus	0.68	0.86	26%	0.4583	No significant trend
	Ammonia-N	0.15	0.11	-27%	0.0000	No significant trend
	Flow	95	32.18	-66%	0.8711	No significant trend
12647 Plum Creek at CR 202	E. coli	978	242	-75%	0.1639	No significant trend
	Dissolved Oxygen	8.25	8.24	0%	0.3954	No significant trend
	Nitrate -N	5.19	5.97	15%	0.1503	No significant trend
	Total Phosphorus	0.98	1.14	16%	0.8640	No significant trend
	Ammonia-N	0.18	0.1	-44%	0.0254	Decreasing trend
	Flow	97.59	30.96	-68%	0.8067	No significant trend

17406 Plum Creek at Plum Creek Rd	E. coli	843	309	-63%	0.0002	Decreasing trend
	Dissolved Oxygen	7.02	6.61	-6%	0.0602	No significant trend
	Nitrate -N	7.01	6.73	-4%	0.0022	Decreasing trend
	Total Phosphorus	1.65	1.87	13%	0.3671	No significant trend
	Ammonia-N	1.02	0.42	-59%	0.6369	No significant trend
	Flow	30.32	2.17	-93%	0.8130	No significant trend

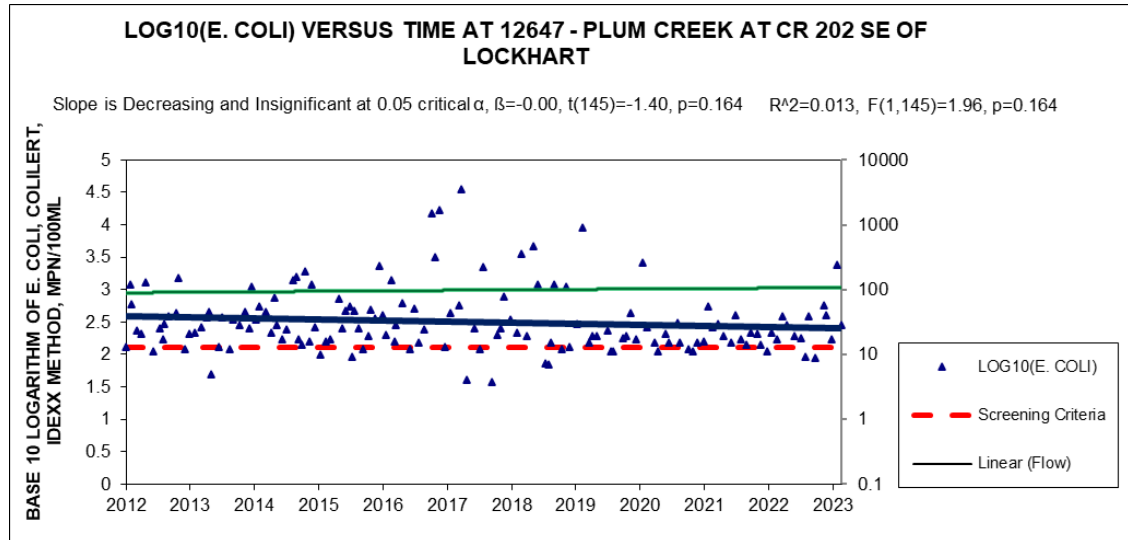
The Plum Creek Watershed Trends

The following figures show the E. coli water quality trends for the three main monitoring sites along Plum Creek. Site 17406 is located in the upper segment of Plum Creek (the most upstream site).



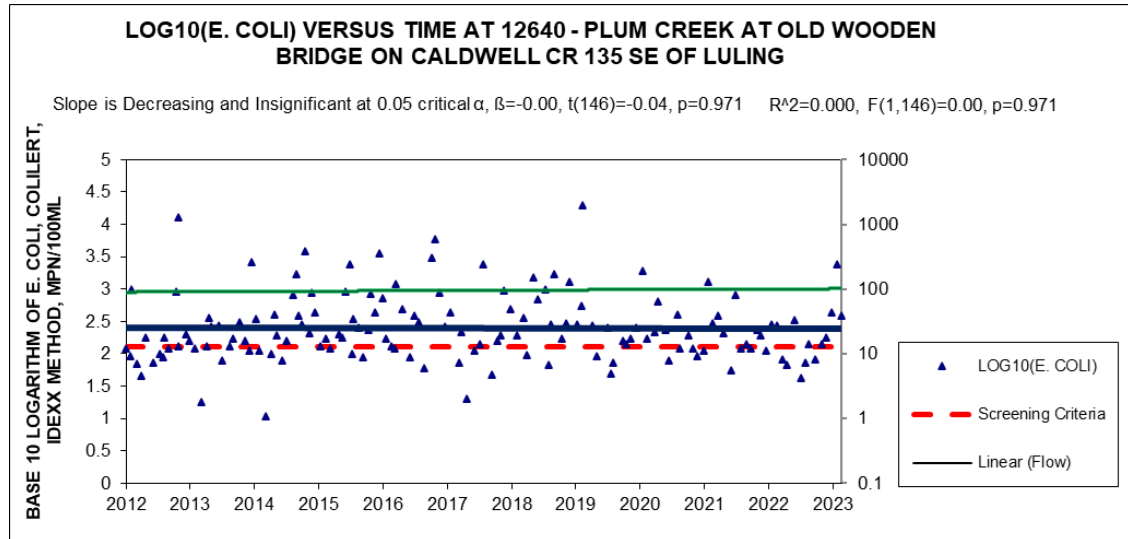
The Plum Creek Watershed Trends

The following figures show the E. coli water quality trends for the three main monitoring sites along Plum Creek. Site 12647 is located in the middle segment of Plum Creek.



The Plum Creek Watershed Trends

The following figures show the E. coli water quality trends for the three main monitoring sites along Plum Creek. Site 12640 is in the lower segment of Plum Creek (the most downstream site).

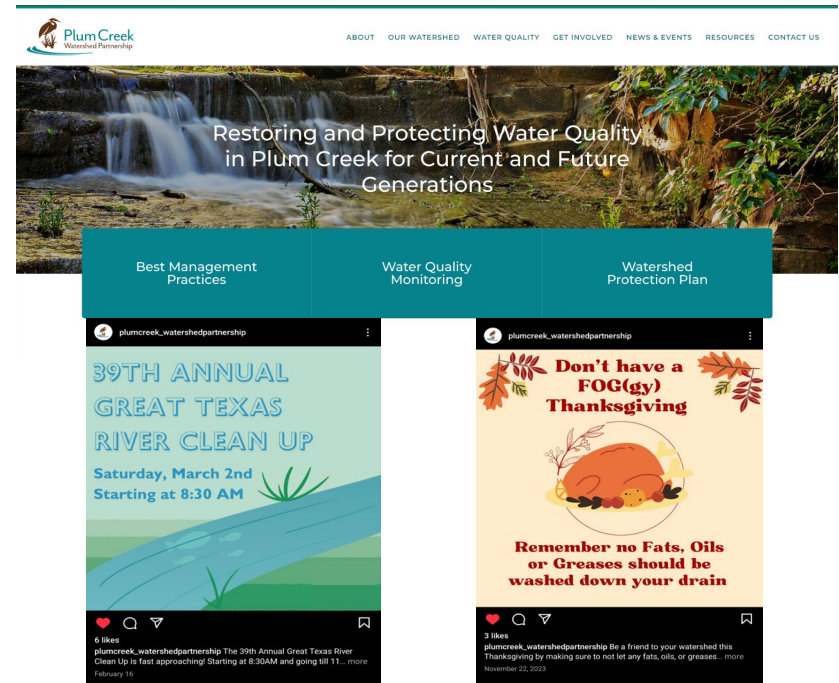


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Updates on Education, Outreach and Events

Outreach and engagement data (social)

- 1320 Subscribers on Constant Contact for the *Plum Creek Current* newsletter (<1% change since last meeting)
- 561 Likes on Facebook (13% increase)
- 207 Followers on Instagram (14% increase)



Central Texas Feral Hogs Task Force

- Since 2013, an estimated 18,189 feral hogs have been removed by the efforts of the Task Force.
- Last year the Feral Hog Bounty Program led to the direct removal of 291 feral hogs in Hays and Caldwell County.
- Caldwell County was not awarded funding for the 2024 grant cycle. The taskforce will continue feral hog education.



Events: Feral Hog Management Roundtable

- This hybrid event provided attendees with a chance to hear from a panel of experts on feral hog management and control.
- The panel included experts from Texas A&M NRI, Texas Animal Health Commission and USDA APHIS
- Partnered with Caldwell County
- 6 attendees

Caldwell County and Plum Creek Watershed Partnership

Feral Hog Management Roundtable



Tuesday July 25th 1PM to 3PM
L.W. Scott Annex 1403 Blackjack St, Lockhart, TX

Got hogs?
Come ask the experts your questions to help you get your feral hog issues under control!

Texas Stream Team: Plum Creek Stewards

Another way stakeholders can get involved!

- Currently, there are 3 monitors in the Plum Creek Stewards group
- 12 sites are still available within the Plum Creek Watershed
- There are two monitoring kits available in the watershed for the group to use



TEXAS STREAM TEAM

CORE ENVIRONMENTAL MONITORING FORM

General Information ▾

Sample Date*

Sample Time (military)*

HHMM
For example: 1455

Site ID and Description*

Search by ID# or description; select "10001 - Training" if using the form for training purposes

Events: Steering Committee and Public Stakeholder Meetings

These have been the meeting since the last CRP meeting. The Partnership has brought back Public Stakeholder meeting after a two year hiatus.

- Steering Committee Meeting - Kyle City Hall April 25, 2023
- Hybrid Steering Committee / Public Stakeholder Meeting - Lockhart State Park July 13, 2023
- Steering Committee Meeting - Edgar Davis Clubhouse Luling October 19, 2023
- Public Stakeholder Meeting - Kyle Public Library February 28, 2024

Events: Texas Watershed Steward Workshop

- Workshop hosted with Texas Riparian Association
- Held at Cabela's in Buda, TX on August 15, 2023
- Offered individuals potential CEU credits
- Participants learned about how they may become involved in local watershed protection and management activities



Events: Healthy Lawns Healthy Waters Workshop

- Workshop hosted with Texas A&M AgriLife Extension
- Held at Cabela's in Buda, TX on April 5, 2024
- Participants learned about rainwater harvesting and turfgrass management. Training for both showed how best practices for watershed health can be done through residential landscapes.



Events: Lone Star Healthy Streams Workshop

- Workshop hosted with Texas A&M AgriLife Extension
- Held at Lockhart State Park on April 18, 2024
- Offered individuals 2 IPM CEU credits
- Participants learned about cattle/livestock grazing BMPs, weed management, feral hog management and reducing nonpoint source pollution.



Event: KLB Annual Fall Cleanup

- 25 volunteers
- 238 lbs of trash
- Covered 3 locations around Lockhart, TX

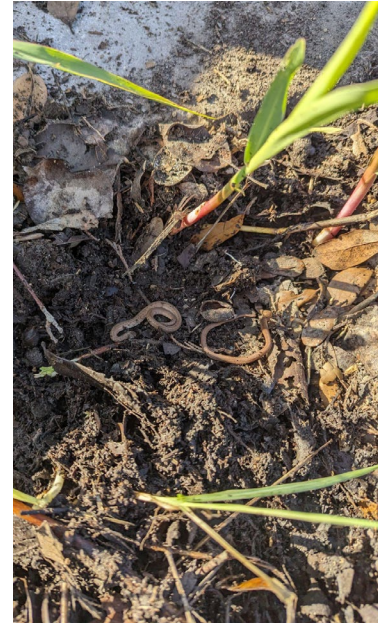


Event: KLB Annual Fall Cleanup



Events: 39th Great Texas River Cleanup, Kyle

- 76 volunteers
- 8980 lbs of trash
- 470 lbs of recycling
- 2 tires



Events: 39th Great Texas River Cleanup, Kyle



Other Plum Creek Outreach Activities

In this past year, the Partnership helped facilitate educational outreach and has reached over 1000 individuals. This was through:

- Elementary school Water Quality Project
- Educational workshops
- Displays and presentations at events
- School field trips
- Community cleanups



Lockhart State Park Showcase event

Other Plum Creek Outreach Activities



Negley Elementary STREAMS Nights

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Upcoming events and plans

- Keep Lockhart Beautiful Arbor Day Cleanup
 - April 27th across Lockhart city parks and Town Branch
- Plum Creek Page Turners Book Club to return
- Plum Creek Coffee Hour
 - A new outreach to be scheduled later this year

And more to come soon!



THANK YOU!

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