

Plum Creek Watershed Partnership Public Stakeholder Meeting

Kyle City Hall July 25, 2024







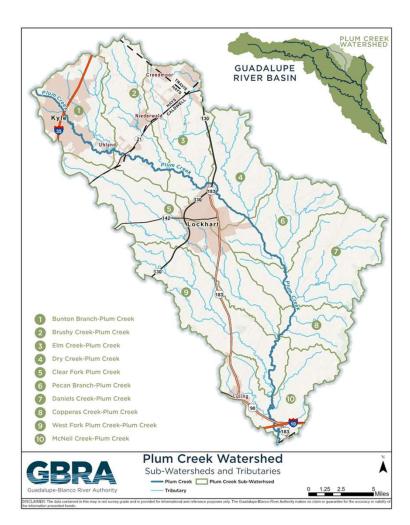
Plum Creek Watershed

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





2022 Texas Integrated Report - Basin 18

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

Assessment Unit	Parameter	Status	
1810_01 (near confluence with San Marcos River)	E. coli (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)	E. coli (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)	E. coli (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)	E. coli (Geomean) Nitrate (nutrient) Dissolved O2 (grab)	Nonsupport (4b) Concern for screening level Concern for screening level	





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Slide duplicated for reading. The Screens at Kyle City Hall are not the largest. The original slide was difficult to reach. I will provide a good narrative for these pairs of slides.

Sean Melvin, 7/18/2024



Draft 2024 Texas Integrated Report - Basin

18

Clear Folk Plum Creek designated 1810B_01 was added into draft integrated report. No concerns for Clear Fork segment per the report.

Here listed are the current impairments and concerns in Plum Creek as described in the Draft 2024 Texas Integrated Report by TCEQ.

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

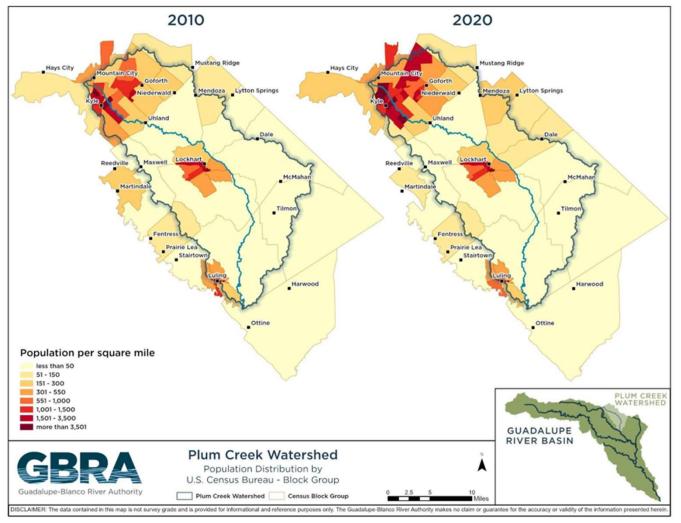
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1810B_01 Clear Fork Plum Creek	Dissolved O2 (grab) Fish Community Habitat Macrobenthic Community	Not assessed Fully supporting No concern Fully supporting



Draft 2024 Texas Integrated Report - Basin 18

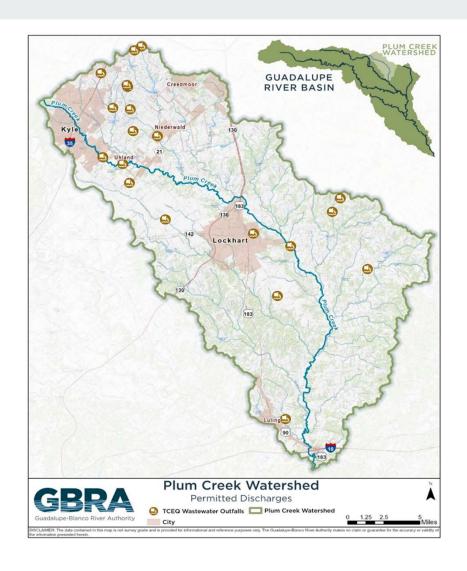
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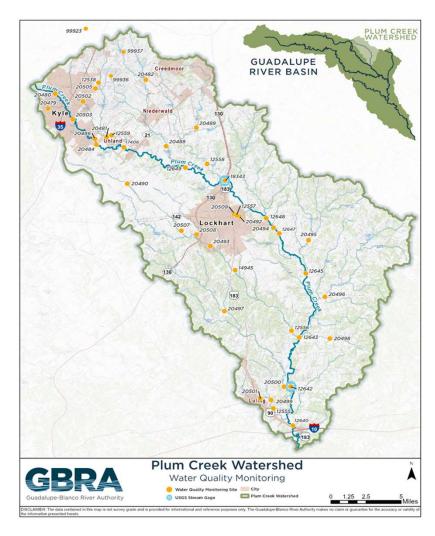




- From 2010 to 2020, there has been a population increases of 49%.
- From 2000 to 2020 that increase was 209%.
- Buda and Kyle make up a majority of the increase. From 2010 to 2020, they had an increase by 107% and 63%, respectively.









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
	E. coli	688	213	-69%	0.9705	No significant trend
	Dissolved Oxygen	7.41	7.26	-2%	0.2885	No significant trend
12640	Nitrate -N	2.62	2.58	-2%	0.0299	Increasing trend
Plum Creek at CR 135	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
	E. coli	978	242	-75%	0.1639	No significant trend
	Dissolved Oxygen	8.25	8.24	0%	0.3954	No significant trend
12647	Nitrate -N	5.19	5.97	15%	0.1503	No significant tren
Plum Creek at CR 202	Total Phosphorus	0.98	1.14	16%	0.8640	No significant tren
	Ammonia-N	0.18	0.1	-44%	0.0254	Decreasing trend
	Flow	97.59	30.96	-68%	0.8067	No significant trend

	E. coli	843	309	-63%	0.0002	Decreasing trend
17406	Dissolved Oxygen	7.02	6.61	-6%	0.0602	No significant trend
	Nitrate -N	7.01	6.73	-4%	0.0022	Decreasing trend
Plum Creek at Plum Creek Rd	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



Updates on Outreach and Events



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.





39th Great Texas River Cleanup, Kyle

- 76 volunteers
- 8980 lbs of trash
- 470 lbs of recycling
- 2 tires
- Covered 2 parks and Plum Creek







Events: 39th Great Texas River Cleanup, Kyle







Keep Lockhart Beautiful Arbor Day Spring

Cleanup

- 40 volunteers
- Approximately 600 lbs of trash
- Covered 4 parks, downtown and Town Branch





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.

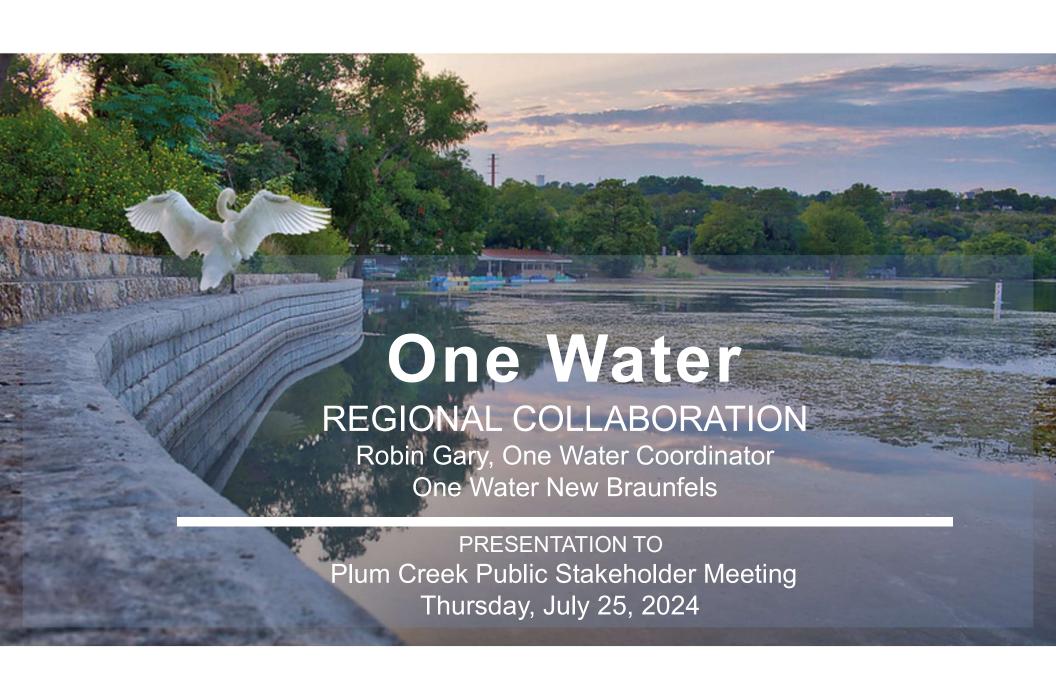




Lone Star Healthy Streams Workshop

- 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.





ONE WATER NEW BRAUNFELS











What

Blueprint for One Water



What

Traditional vs. One Water Approach



Source: Based on Water Research Foundation (2017) - adapted by Richards Consulting (2020).

Why

One Water Communities

This list of One Water communities is a collection of the locations of respondents who self-reported working on or having completed a One Water plan, as well as the locations named by respondents where One Water projects are taking place.

Based on survey responses, we discovered 80 One Water communities where a plan is in place. This list may not be comprehensive.







Buildings



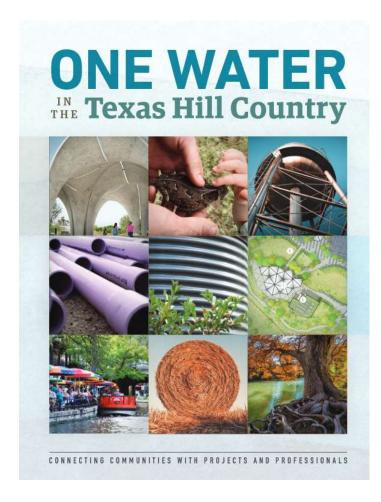


Infrastructure



Planning

Examples



Buildings

- Altstadt Brewery, Fredericksburg
- Blue Hole Primary School, Wimberley
- Brooks Campus Redevelopment, San Antonio
- Camp Eagle, Rocksprings
- Red's Car Detail Shop, Dripping Springs
- Twin Oaks Library Rainwater Harvesting System, Austin

Infrastructure

- Aquifer Storage and Recovery, New Braunfels
- Blue Hole Park, Wimberley
- Confluence Park, San Antonio
- Eliza Springs Daylighting, Austin

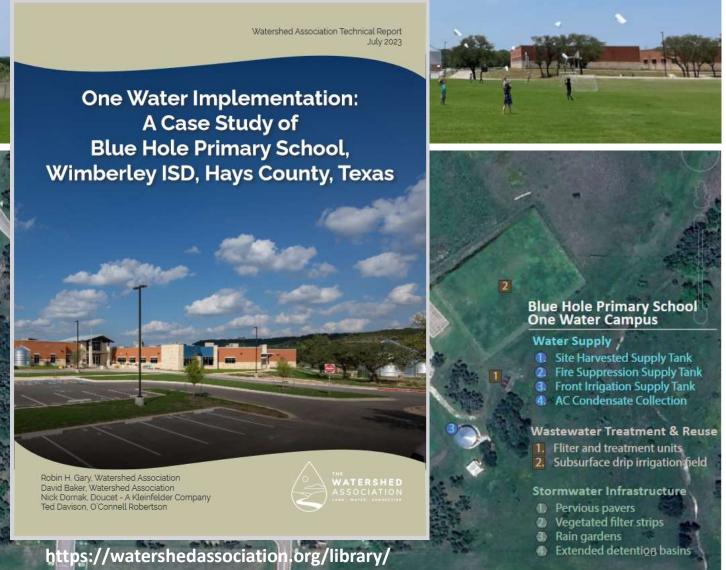
Planning

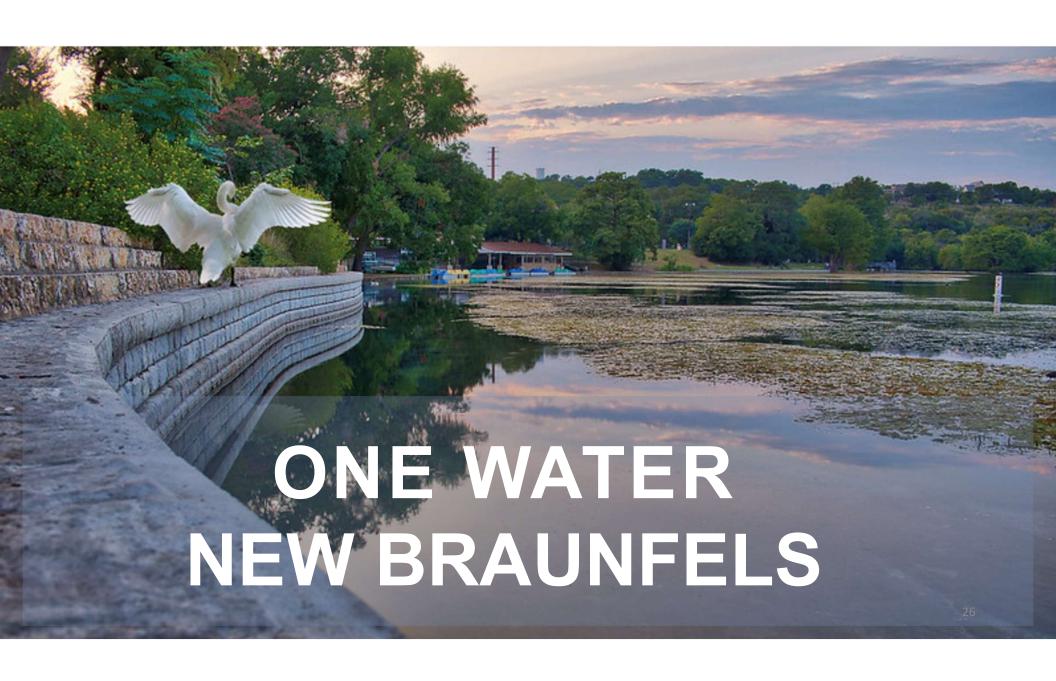
- Integrated Water Resources Plan, Austin
- Integrated Stormwater Management Ordinance, Boerne
- Cypress Creek Watershed Protection Plan, Wimberley
- Shield Ranch Master Plan, Bee Cave



2020-2021 Blue Hole Primary Second Grade GT Students, Photo by Diana Spangenbe







Why Economy, Community, and Environment



One Water New Braunfels

ONE WATER ROADMAP REPORT

DRAFT AS OF JUNE 1, 2021









VISION

To ensure water remains a celebrated & protected feature of our community by collaboratively managing our water resources to safeguard watersheds, waterways & groundwater.

- Plan for & manage water resources holistically & sustainably
- Maximize environmental, social, & economic benefits to the greater New Braunfels area
- Ensure water remains a celebrated feature of New Braunfels
- Provide sustainable & high-quality water
- Ensure healthy watersheds, waterways & groundwater resources

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One Water Spotlight: Headwaters at the Comal

Site/Prairie Restoration and Green Stormwater Infrastructure Installation, 2016 - 2017

A historic fleet facility yard was converted to native prairie, a green stormwater management system was installed, and enhancements for continued water plant operations within a sensitive area were added.



One Water Spotlight: Headwaters at the Comal









One Water Components

DEMAND REDUCTION

- ✓ Native and/or drought tolerant plants
- ✓ Low impact development

SITE-HARVESTED SUPPLY

✓ Storm water capture

WATER QUALITY PROTECTION

- ✓ Green stormwater infrastructure
- ✓ Natural infrastructure
- ✓ Low impact development

INTEGRATED MANAGEMENT

- ✓ One Water Plan, Roadmap element
- ✓ Coordinated policies and programs
- ✓ Community awareness, input and support

One Water Spotlight: GBRA Headquarters

New Braunfels Headquarters Campus Construction, 2021-2023

This campus was constructed to accommodate a growing workforce, provide water quality protection and water conservation education and demonstration spaces, and remain fiscally responsible to rate-payers.



One Water Spotlight: GBRA Headquarters









One Water Components

DEMAND REDUCTION

- ✓ Water conservation measures
- √ Water efficiency measures
- ✓ Native and/or drought tolerant plants
- ✓ Low impact development

SITE-HARVESTED SUPPLY

- ✓ Rainwater harvesting
- ✓ Storm water capture

SUPPLY AUGMENTATION

✓ Non-potable reuse

WATER QUALITY PROTECTION

✓ Low impact development

One Water Spotlight: Landa Aquatic Center

Landa Aquatic Center Parking Lot Bioretention System, 2021-2022

The Aquatic Center Parking Lot project models that a minimal extra investment can lead to major reduction in pollutants to the environment and benefits to the Comal River.



One Water Spotlight: Landa Aquatic Center









One Water Components

DEMAND REDUCTION

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WATER QUALITY PROTECTION

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INTEGRATED MANAGEMENT

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Near-Term Partner Projects

One Water Working Group Collaboration Possibilities:







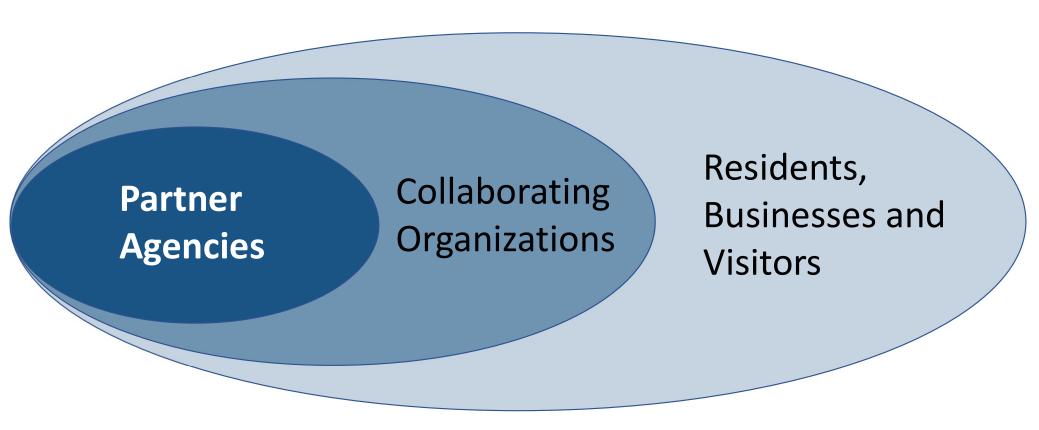
- Water Resource Plan
- Water Conservation Plan
- Drought Contingency Plan
- Headwaters at the Comal

- Envision New Braunfels
- Land Development Ordinance update
- Watershed Protection Plans
- Edwards Aquifer Habitat Conservation Plan

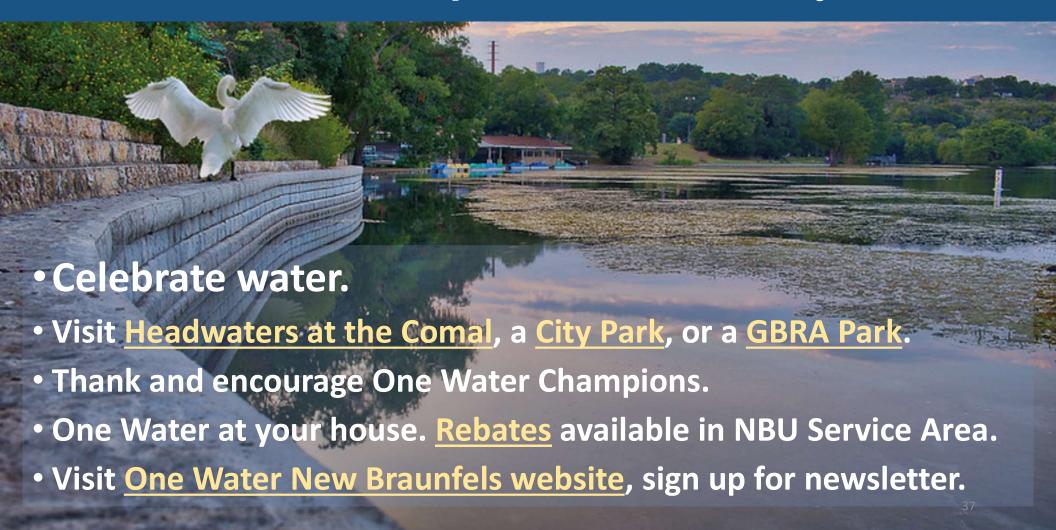
- Guadalupe River Habitat Conservation Plan
- Type 1 Reuse Projects (Ex: Zipp Family Sports Park)
- Drought Contingency
 Plan updates

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Next Steps and How to stay involved



Next Steps and How to stay involved







Discussion: One Water, Many Choices

This time if for open discussion about our Plum Creek Watershed and One Water. These are some questions to assist our conversation.

- What are some of your initial thoughts?
- What projects would like to see One Water being adopted by in your community?
- In regards to One Water, how do you like to see it incorporated into your community?
- How do you see One Water working as a part of your life?



Blue Hole Primary Wimberly, a One Water school design



Opportunities in the Watershed

Here are fun ways you can be more engaged here in our work to help protect the Plum Creek Watershed

- Join the Plum Creek Stewards group of Texas Stream Teams and become a community scientist
- Sign up as a Plum Creek Volunteer and be ready for any cleanup or event
- Attended your local public meetings that relate to water quality.





TreeFolks: Central Texas Floodplain Reforestation Program

Restoring healthy forest buffers all riparian areas, in Hays and Caldwell County!

- This program is designed to be no cost to landowners, valued at \$7,500 per acre
- Easy eligibility requirements
 - Land more than ½ acre with part of it in an unforested floodplain/ riparian area
- TreeFolks is eager to assist Caldwell County landowners as it has been identified as a critical reforestation area

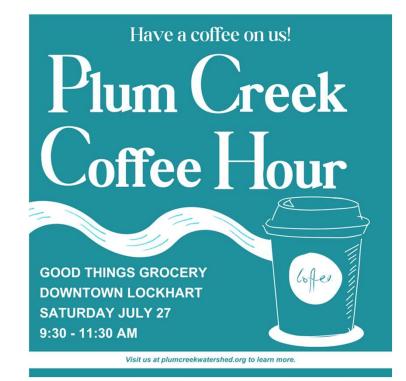




Upcoming events and plans

- Plum Creek Page Turners Book Club to return
- Plum Creek Coffee Hour
 - Saturday, July 27th at Good Things
 Grocery from 9:30 to 11:30 AM
- On-site Septic Facility educational workshop (Week of September 23rd)
- Keep Lockhart Beautiful Annual Fall
 Cleanup (late October, early November)

And more to come soon!



Beverages for this event are supported by the Perry Homes Foundation





Next meeting will be a Public Stakeholder meeting in early 2025. What topics or presenters would you like to have for the upcoming Public Stakeholder meeting?



THANK YOU!

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Soil & Water

CONSERVATION BOARD

Funding for the development and support of the Plum Creek Watershed Protection Plan is through a Clean Water Act grant provided by the Texas State Soil and Water Conservation Board and U.S. Environmental Protection Agency.

