



#### Plum Creek Watershed Partnership Public Stakeholder Meeting

Scott Annex

1403 Blackjack St., Lockhart, TX 78644

Thursday, Dec 5, 2019

6:30 PM to 8:20 PM

#### Agenda

- 6:30 Welcome, Introductions, & Dinner Served Steve Risinger
- 6:50 Watershed Coordinator Updates Steve Risinger
- 7:10 2020 Update to WPP Discussion
- 7:50 Steering Committee Member Updates
- 8:10 Adjourn

Next Meeting: February, 2020 Location: TBD PCWP Meeting

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



Steve Rísinger Plum Creek Watershed Coordinator

# PLUMCREEKWATERSHED PARTNERSHIPMEETING

5, December, 2019

Scott Annex, Lockhart, TX

# Dinner Sponsored by: Plum Creek Conservation District

 Plum Creek Conservation District

latershed

1101 W. Sen Antonio St. Lockhert, TX 78644 info@pood.org (512) 398 - 2383

# AGENDA

Welcome and introductions

- \* What is a Watershed Protection Plan (WPP)?
- Watershed updates

  12<sup>th</sup> Annual Fall Cleanup results
  Funding Opportunities

  2020 (Update to the WPP discussion
- Steering Committee (Jpdates
  Tentative 2020 Schedule



# DISTRICT TECHNICIAN

- Larry Warren, is an employee of the Caldwell-Travis SWCD
- He is a field technician who works with agricultural producers to better manage runoff from their operations

Caldwell County SWCD 1403 Blackjack St. Lockhart, TX 78664 (512) 398-2121





- November 9th
- Sponsors
  - City of Lockhart
  - Keep Lockhart Beautiful
  - The GBRA of Texas
  - The Plum Creek Watershed
     Partnership
  - Raised over \$1,100
- > Over 120 volunteers
- Removed over 350lbs of trash & debris from areas surrounding Town Branch <sup>©</sup>

PLUM CREEK/TOWN BRANCH/LOCKHART SPRINGS

Keep Lockhart Beautiful



### 12th Annual Cleanup

Saturday, Nov. 9th at City Park Pavilion — 9am

#### Register your group at www.gbra.org/plumcreek



Stephen Risinger 512-557-7358



RECEIVE A FREE T-SHIRT AND BREAKFAST TACOS! (while supplies last)



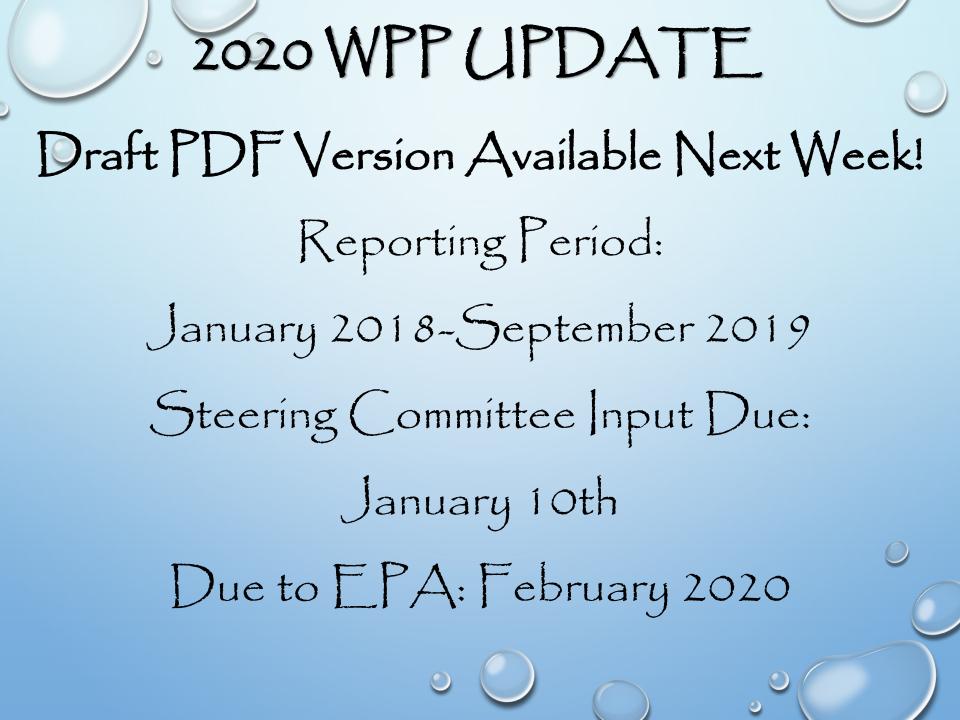
- > Application Request Period
  - Early November 2019 Jan 2020
- Grant Period 2020-2021
- > Up to \$90,000 Total
- Types of Projects
  - Household hazardous waste management
  - Environmental local enforcement
  - Litter and illegal dumping clean-up and community collection events
  - Source reduction and recycling
  - Citizens' collection stations
  - Educational and training programs
  - Other eligible solid waste management projects, including scrap tires projects



# PLm Creek Watershed Protection Plan 2020 WPP UPDATE DISCUSSION

THE PLUM CREEK WATERSHED PARTNERSHIP

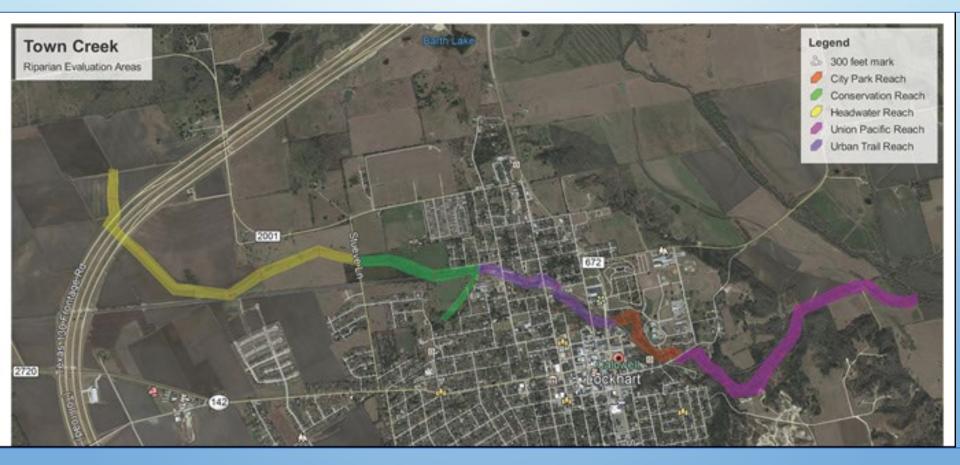
February 2008



# URBAN STORMWATER MANAGEMENT



#### Plum Creek Watershed Protection Plan (WPP) Implementation –Town Branch Urban Trail, Lockhart, TX





## TOWNBRANCHRIPARIANRESTORATION

- Collaboration between:
  - TCEQ
  - City of Lockhart
  - Nueces River Authority
  - The Plum Creek Watershed Partnership
- Project Status: Initial design meeting between project partners completed April 26th



### TOWNBRANCHRIPARIANRESTORATION

- 2,000 square foot rain garden to treat a catchment area of 2 acres
- Expand a riparian buffer strip area treating runoff from a larger upland
- Eliminate invasive species -
- REDUCE VOLUME STORM WATER RUNOFF
- Removing litter
- Stabilize stream banks
- Rotating views





• And public outreach to include accessibility to information about the park



- 13,000 GAL FILTERING CAPACITY RAIN GARDEN
- 2,000 SQ FT XERISCAPE
- 10,000 GAL RAINWATER HARVESTING SYSTEM
- 13,250 SQ FT PERMEABLE PAVEMENT PARKING LOT
- 65% REDUCTION IN OFFSITE DISCHARGE
- THE TOTAL PROJECT FOR INFRASTRUCTURE AT \$465,402
- FUNDING THROUGH CWA 319
- PROJECT EXTENDED TO FEB. 2020
- PERMEABLE PAVER LOT COMPLETION PENDING FAVORABLE VOTE BY COUNTY COMMISSIONERS

## URBAN STORMWATER MANAGEMENT

Urban S	tormwater Updates through September 2019	
	Street sweeping – 5 miles per month	
	Collected 25,600 bags of waste or 6,400 lbs.	
City of Puda	New City Municipal Complex utilizes reuse water for irrigation	
City of Buda	Added trash racks in four ponds to reduce floatables	
	<ul> <li>Updated plastic stormwater markers to metal markers for longevity</li> </ul>	
City of Kyle	<ul> <li>Updated and submitting the Stormwater Management Plan for TCEQ approval</li> <li>4,445 feet of reuse lines installed</li> <li>Created Grow Zones (no mow zones) along Plum Creek in Steeplechase Park in FY18.</li> <li>Street sweeping - 150 miles per month</li> </ul>	
City of Lockhart	<ul> <li>Identified a large domestic waterfowl population in City Park as a potential bacteria source.</li> <li>Street sweeping - 100 miles per month</li> </ul>	
City of Luling	Still waiting on data	
Hays County	No data collected, worked with county to create efficient tracking process for septic installations and violations	
Caldwell County	Still waiting on data	

# WASTEWATER MANAGEMENT

## WASTEWATEREFFLUENT MONITORING

#### **TPDES Wastewater Permits**

FACILITY NAME	Type of Disinfection	MAX PERMITTED FLOW (MGD)	PERMIT NUMBER	EFFECTIVE DATE	EXPIRATION DATE	E. coli effluent limits	E. coli effluent monitoring requirements
KYLE	Chlorine	3/4.5	WQ0011041-002	10/07/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL daily max	once per week
LOCKHART NO. 2 (FM 20 Plant)	UV	1.5	WQ0010210-002	05/13/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL daily max	once per day
BUDA	Chlorine	1.5	WQ0011060-001	03/30/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL daily max	once per week
LOCKHART NO. 1 (Larremore Street Plant)	Chlorine	1.1	WQ0010210-001	02/12/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL daily max	once per week
LULING-NORTH	Chlorine	0.9	WQ0010582-002	08/18/2017	02/01/2020	126 cfu/100mL daily avg²; 399 cfu/100mL daily max	twice per month
RANCH AT CLEAR FORK	Chlorine	0.33/0.7	WQ0014439-001	04/20/2016	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL daily max	once per month
RAILYARDS-VILLAGE HOMES	Chlorine	0.075/0.12375	WQ0014060-001	09/10/2015	02/01/2020	126 cfu/100mL daily avg²; 399 cfu/100mL single grab	once per quarter
GOFORTH	Chlorine	0.0424	WQ0013293-001	04/30/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL single grab	once per week
SUNFIELD	Chlorine	0.25/0.5/0.99	WQ0014377-001	05/04/2017	02/01/2020	126 cfu/100mL daily avg²; 399 cfu/100mL daily max	once per month
SHADOW CREEK (formerly CASTLETOP)	Chlorine	0.162/0.486	WQ0014431-001	05/21/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL single grab	once per month
CROSSWINDS	Chlorine	0.20/0.40	WQ0015011-001	06/24/2015	02/01/2020	126 cfu/100mL daily avg <sup>2</sup> ; 399 cfu/100mL single grab	once per month
WINDY HILL	Chlorine	0.45	WQ0015478-001	10/25/2016	02/01/2020	126 cfu/100mL daily avg²; 399 cfu/100mL single grab	once per quarter
CAMINO REAL	Chlorine	0.42	WQ0015323-001	11/2/2015	02/01/2020	126 cfu/100mL daily avg²; 399 cfu/100mL single grab	Once per month
CALDWELL VALLEY	Chlorine	1.55	WQ0015064-001	05/19/2017	02/01/2020	126 cfu/100mL daily avg²; 399 cfu/100mL single grab	Once per month

Renewing Eeb. 2020

# MANAGEMENTUPDATES

#### **Sewer Pipe Replacement and New Service**

City	<b>2018 - 2019</b> Sewer Line Repaired/ Replaced (linear feet)
Buda	21,120
Kyle	43, 177
Lockhart	27,600
Luling	*None reported in the watershed
Totals	91,897

## Hillside Terrace

ASTEWATER

Over 265 homes are in the subdivision on onsite wastewater systems Majority of lots are small, wastewater issues are reported often to the County > Hays county to apply for Brownfields Grant revolving loan fund for up to \$1,000,000 to connect to sewer



## AGRICULTURAL-NPS MANAGEMENT

Natindale



Changes Littletone



### Water Quality Management Plans

## >15 WQMPs Implemented 2018-2019

All Livestock oriented

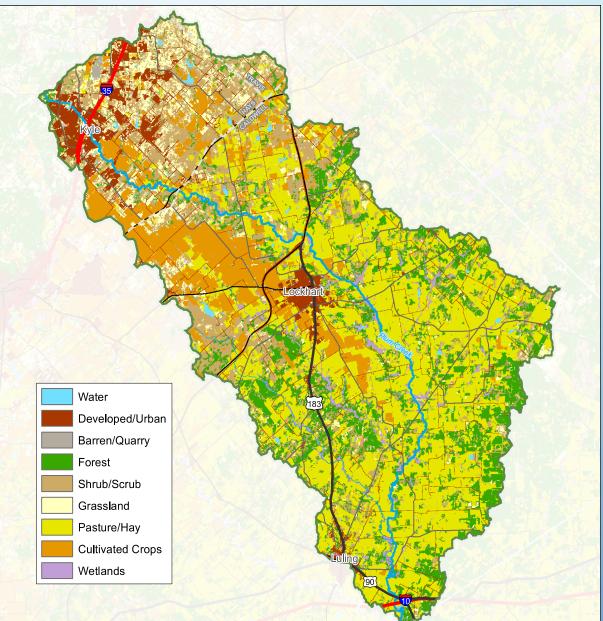


### **2017 AGRICULTURAL CENSUS**

- Number of farming operations in Caldwell County have climbed by 19% since 1997 due primarily to the partitioning and sale of larger properties
- The amount of acreage devoted to agricultural operations has increased from 55,928 to 67,908 – a 21% increase from 2012 totals
- Total number of cattle in Caldwell County has increased by 12% since 2012
- Corn is the leading agricultural product in Caldwell County with over 1.7 million bushels produced

## LANDUSEINPLUMCREEK

➢Increased partitioning of land **>**Mark increase in ag operations ➢Increases in pasture/hay



## BACTERIALSOURCETRACKING

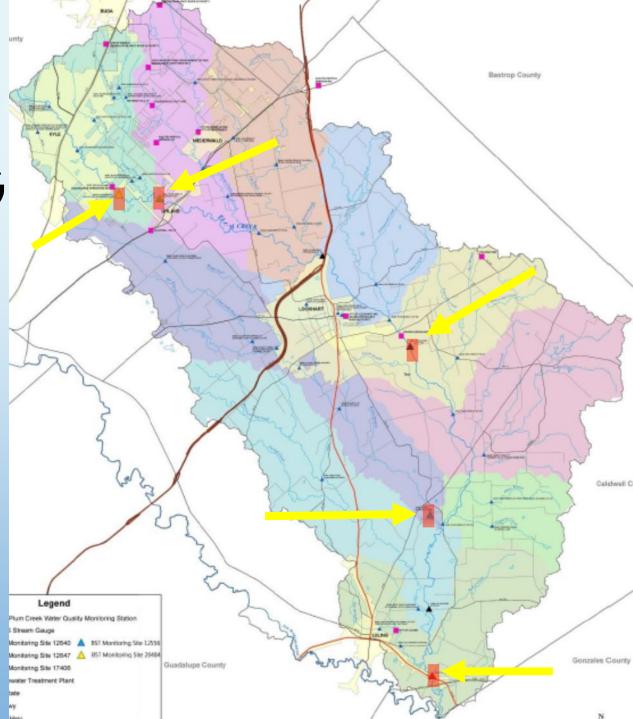
#### **\*BACTERIAL SOURCE TRACKING**

- Determines sources of fecal contamination
- Based on uniqueness of bacteria from individual sources

#### DNA fingerprinting

- Improves resource allocation
- Plum Creek
  - ►TSSWCB
  - ≻TWRI
  - Texas A&M Agrilife Dept of Soil & Crop Sciences
  - University of Texas Health Science Center at Houston School of Public Health

# 5 SAMPLING STATIONS



## GENERALOBSERVATIONS

- Apparent major E. Coli sources
  - Feral hogs, small mammals, deer, birds
  - Domesticated animals
- Watershed trends
  - Highest non-avian concentration found in upper watershed, big contributor
  - Higher livestock/domestic animal concentrations in lower reaches of watershed
  - Increase in avian WL concentrations downstream of urban areas
- Designated following sub watersheds as focal points for BMPs: UH-1, LO-1, LO-8, LU-12, LU-6, LU-19, LU-20, LU-21

## WILDLIFE AND NONDOMESTIC ANIMAL MANAGEMENT

0

## FERAL HOG BOUNTY PROGRAM

>>Texas AgriLife Extension

Service Wildlife Services

Grant

- > \$20,000 award
- March September 2019
- > 2,071 feral hogs removed
- > Over 50 Landowners





# OUTREACH& EDUCATION

## OUTREACHANEDUCATION EVENTS

Date	Workshop/Event	Location
Feb. 2018	Plum Creek Partnership Steering Committee Meeting	Kyle, TX
Nov. 2018	Plum Creek Agricultural Farm Tour	Caldwell
		County, TX
Nov. 2018	Keep Lockhart Beautiful Town Branch Cleanup	Lockhart, TX
Dec. 2018	Plum Creek Partnership Public Meeting	Kyle, TX
Feb. 2019	34th Annual Texas River Cleanup along Plum Creek	Kyle, TX
Feb. 2019	Plum Creek Partnership Steering Committee Meeting	Uhland, TX
Mar. 2019	Caldwell County Feral Hog Bounty Collection	Lockhart, TX
Арг. 2019	Healthy Lawns Healthy Waters Homeowner Workshop	Lockhart, TX
Apr. 2019	Earth Day Watershed Model Demonstrations	Kyle, TX
Арг. 2019	Caldwell County Feral Hog Bounty Collection	Lockhart, TX
May. 2019	Keep Texas Waterways Clean Plum Creek Pickup	Lockhart, TX
May. 2019	Caldwell County Feral Hog Bounty Collection	Lockhart, TX
May. 2019	Public PCWP Meeting/Soil Health & Turf Management	Luling, TX
	Workshop	
May. 2019	Caldwell County Justice Center Rain Garden Maintenance	Lockhart, TX
Jun. 2019	Healthy Lawns Healthy Waters Homeowner Workshop	Lockhart, TX
Jun. 2019	Caldwell County Feral Hog Bounty Collection	Lockhart, TX
Jun. 2019	Caldwell County Justice Center Rain Garden Maintenance	Lockhart, TX
Jun. 2019	Chisholm Trail Roundup Post-Event Cleanup	Lockhart, TX
Jul. 2019	Caldwell County Justice Center Rain Garden Maintenance	Lockhart, TX
Aug. 2019	Healthy Lawns Healthy Waters Homeowner Workshop	Kyle, TX
Aug. 2019	Caldwell County Feral Hog Bounty Collection	Lockhart, TX
Sept. 2019	Plum Creek Partnership Steering Committee Meeting	Lockhart, TX
Sept. 2019	Wildlife Management Workshop	Lockhart, TX

# OUTREACHANEDUCATION

#### **GBRA** Youth Education and Plum Creek School Water

#### **Quality Project**

Hi	ghlights of the GBRA youth education program, Jan. 2018 through Sept. 2019.
Spring 2018	Lockhart State Park Spring presentations to Lockhart fifth graders (300 students Hays and Lockhart ISDs water quality testing program fourth graders (360) Composition Challenge (6 Plum Creek schools, 480 fourth grade students)
Fall 2018	Lockhart State Park Fall presentations to Lockhart fifth graders (300 students)
Spring 2019	Lockhart State Park Spring presentations to Lockhart fifth graders (390 students Hays and Lockhart water quality testing program fourth graders (500) Composition Challenge (5 Plum Creek schools, 340 fourth grade students)
Fall 2019	Lockhart State Park Fall presentations to Lockhart fifth graders (300 students)

## PLUMEREEK CONSERVATION FARM TOUR

- Held on November 7<sup>th</sup>, 2018
- Highlights local conservation efforts within the Plum Creek Watershed
- Organized and planned by The Caldwell-Travis Soil and Water Conservation District (SWCD) with help from the USDA-Natural Resources
   Conservation Service (NRCS) and 14 other community partners.
  - Toured sites with active WQMPs



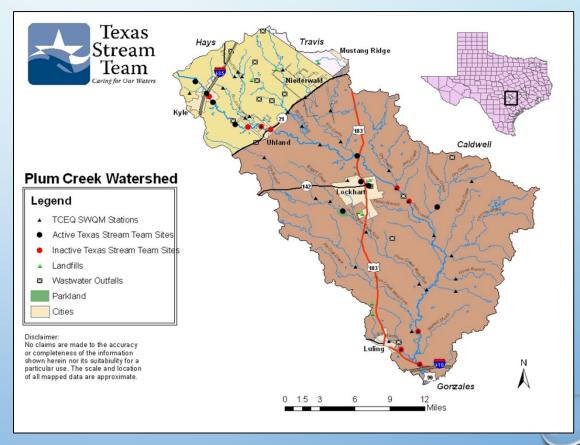
OUTREACHANEDUCATION

### TEXASSTREAMTEAM

6 sampling sites

Core Water
 Quality Sampling
 Kit funded by
 Lockhart Lions Club

Designated Texas
 Stream Team
 Trainer in the Plum
 Creek Watershed



# OUTREACHANEDUCATION

#### LOW IMPACT DEVELOPMENT WORKSHOPS

- Monthly Cleanups and educational events
- Community Groups
  - Keep Lockhart Beautiful
  - Texas State University Dept. of Geography
  - Girl & Boy Scouts of America
  - The Pegasus School
  - Keep Lockhart Beautiful
- > Over 50 Individuals
- 146 Total volunteer hours

#### CALDWELL COUNTY RAIN GARDEN VOLUNTEER DAY

Looking for volunteers to help maintain the Caldwell County Justice Center Rain Garden. This large rain garden is a Low Impact Development (LID) feature in the Plum Creek Watershed Protection Plan. There is a unique collaboration of professionals on this LID project that Texas State students can network with.

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The event coordinator for this volunteer day is Francesca Filippone, Secretary of Gamma Theta Upsilon. Volunteers are not limited to Gamma Theta Upsilon members. For more information contact Francesca at f\_f54@btstate.edu. EARN VOLUNTEER HOURS

WORK WITH THE PLUM CREEK WATERSHED COORDINATOR

MEET MASTER GARDENERS

WORK WITH AN ENVIRONMENTAL ENGINEER AND COUNTY GRANT WRITER

LEARN ABOUT LOW IMPACT DEVELOPMENT

August 31

8-10 A.M.

1703 S Colorado St Lockhart, TX 78633

# BA Post-Register Thursday, September 5, 2019 New green infrastructure hits Caldwell County

LPR Staff Report

and the second s

WELLCA

A volunteer group of eight Texas State University students, six representatives from The Pegasus School and several local gardeners, residents, county officials and environmental professionals joined together on Saturday to spend two hours maintaining three green infrastructures located at the Caldwell County Justice Center.

Green infrastructures are stormwater management systems that mimic nature to treat and reduce stormwater runoff from pavement and other urban surfaces. The green infrastructures maintained by the volunteer group included two large xeriscape beds and a rain garden.

The 1,550 squarefoot rain garden was installed in 2017 by the Plum Creek Watershed Partnership and is one of the largest demonstration projects for this area. It is currently used as an educational platform on stormwater management to kids, college students and the public.

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of your life

Planted in the rain garden are native grasses, shrubs, and trees that provide a habitat for butterflies, insects and birds. The rain garden removes sediment, phosphorus and nitrogen from stormwater runoff before it reenters the water system. While maintaining an aesthetically pleasing appearance, this rain garden

Volunteers from throughout Caldwell County work to install a new xeriscape garden at the Caldwell County Justice Center. Photo courtesy of the Caldwell County Justice Center

treats 2.5 acres of stormwater runoff from the concrete parking lot and can treat up to 16,500 gallons of stormwater runoff.

The volunteers accomplished the equivalent of over 40 hours of work by removing weeds, pruning plants, bagging clippings, adding mulch and watering the plants.

the plants. Following the work was an educational outreach led by Texas State student leaders. The students emphasized the importance of pollutant removal through green infrastructure and how the rain garden contributes to water quality in Plum Creek. Top Personnel on

 quality in Plum Creek.
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 Top personnel on
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 this project includes
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 Plum Creek Watersheet
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 Coordinator Stephen
 gisinger.

 County Grants Admin.
 or srisinger.

 Caldwell County Judge
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Hoppy Haden, Environmental Engineer Elizabeth Arceneaux, local gardeners Lee Rust and Anna Ybarra. During the volunteer event Dennis Engelke expressed his hopes of these green infrastructures becoming "a demonstration project that can be replicated in other communities within Caldwell County". Towards the end of the event Stephen Risinger, expressed his excitement "for the community's collaboration to better the environment and for the headway for similar projects in the Plum Creek Watershed Part-

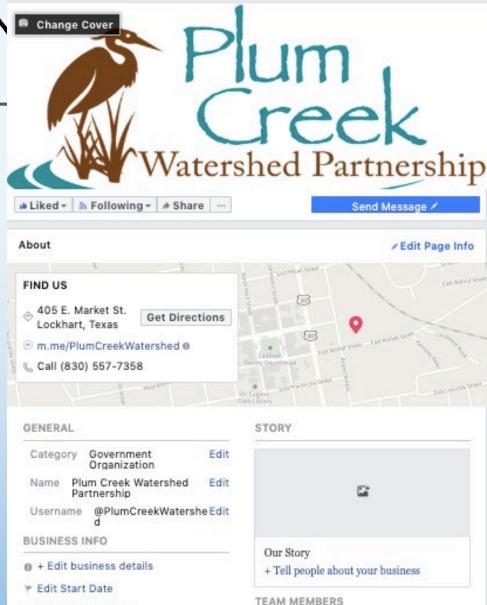
Creek Waterland nership", For more information on how you can get involved in the next Rain Garden cleanup, please contact Stephen Risingeer@plumcree kwatershed.org





#### Social Media Outreach

- Facebook
  - @PlumCreekWatershed
  - Updated bi-weekly
  - 280 followers
  - 3,000 visitors since Jan 2018
  - Avg 150 visitors/month
- Twitter
  - #PlumCreekWater
  - Created Summer 2019
  - 40 followers



These people manage the Plum Creek

Watershed Partnership Page and have

Add yourself as a team member

shown on the Page.

chosen to have the Page appear on their

profile and their name and profile picture

- edit business types
- Mission

The Plum Creek Watershed Partnership is dedicated to improving and protecting the quality of Plum Creek, it's tributaries, and the surrounding watershed.

# OUTREACHANDEDUCATION

#### **Online Education**

Stormwater **Management Module** 

- Online Septic System Module
  - 784 Visits\*
- > Online Wastewater **Treatment Facility** Module
  - 125 Visits\*
- \* Since September 5th





#### Wastewater Treatment Facility Training 5

An informational wastewater treatment module that shows the procedures of wastewater treatment and explains why it is important to properly manage wastewater at all steps in the process, from your home all the way to the stream where the treatment facility discharges.

#### Septic System Training 5

Spanish version of Septic System Training 5

An online training program to illustrate proper septic system function and maintenance to ensure efficiency and to extend the life of the system.



#### Fats, Oils, and Grease Training

An online training program to address management practices for handling fats, oils, grease, and household chemical use and disposal. The training is geared toward both businesses and homeowners.

#### Stormwater Management Training

An online training tool for municipal operations employees to encourage proper stormwater management. This module addresses stormwater control practices and includes information for entities that must satisfy municipal stormwater regulations.





#### Illegal Dumping & Litter Campaigns

- Plum Creek Pickup
  - 3 sites along Plum Creek
  - Spring 2018
  - Over 50 volunteers committed
  - Raised \$500 for supplies
- Keep Lockhart Beautiful
  - 178 Volunteers 2018
  - Raised over \$400 for supplies
  - Removed 1,000 lbs of refuse & debris

PLUM CREEK/TOWN BRANCH/LOCKHART SPRINGS



# Keep Lockhart Beautiful

# 11<sup>th</sup> Annual Cleanup

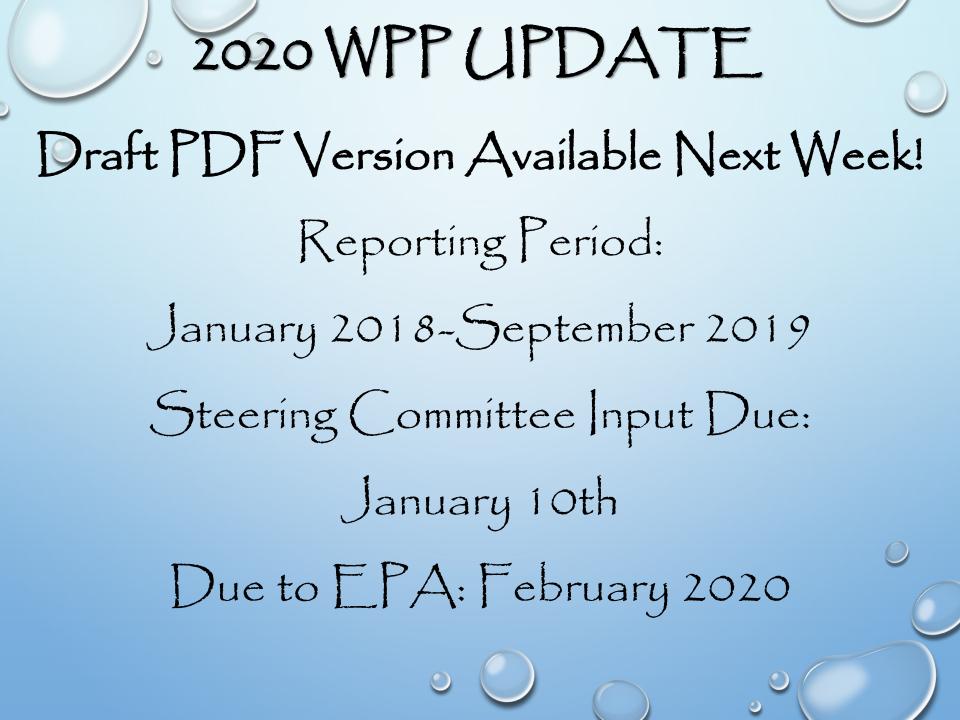
Saturday, Nov. 3 at City Park Pavilion — 9am

Stephen Risinger 830-557-7358



Register your group at www.gbra.org/plumcreek

FREE BREAKFAST (while supplies last)





- Recommendations for this Update?
- ≻Missing Info?
- >Water Quality Report to be complete by
  - Wednesday, January 8<sup>th</sup>, 2020





- Individual Member Updates?
- Any updates regarding our 5 strategies?
  - Urban Stormwater Management
  - Wastewater Management
  - Agricultural Non-Point Source Management
  - Wildlife & Non-Domestic Animal Management
  - Education and Outreach

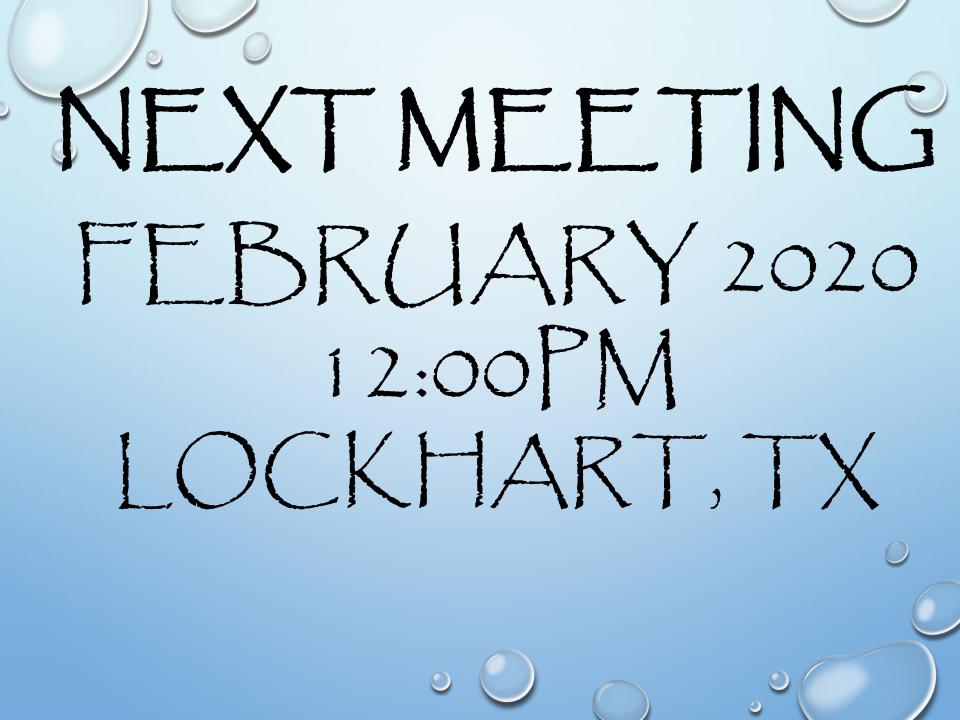
Grant funding ideas or needs?

/	Tenative	Schedule	- 2020

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Month	Kyle	Lockhart	Luling
January		Plum Creek TSST Monitoring	
February	Annual Great Texas River Cleanup in Plum Creek	Plum Creek Pickup Cleanup Event / Partnership Meeting??	Plum Creek Pickup Cleanup Event
March	Uhland Septic Workshop	Texas Well Owner Network / Feral hog bounty start / Begin CCJC maintenance and LID workshops	
April	Earth Day at Kyle Public Library	Chisholm Trail Roundup / Plum Creek Pickup Watershed Cleanup	
May	TSST Plum Creek Monitoring		Luling Foundation Field Day / Partnership Meeting??
June			Luling Watermelon Thump
July			Lone Star Healthy Streams Workshop
August		Feral Hog Bounty Wrapup	
September	Buda Septic Workshop	Lockhart State Park Field Trips Begin / 13th Annual Keep Lockhart Beautiful Watershed Cleanup / Partnership Meeting??	
October			
November	VFW Breakfast / Veterans Day	End CCJC Maintenance and LID Workshops	
December	Partnership Meeting??		

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#### Steve Risinger Plum Creek Watershed Coordinator

srisinger@plumcreekwatershed.org

405 E. Market Street Lockhart, TX 78644

(830) 557-7358

#### TEXAS STATE Soil & Water

#### CONSERVATION BOARD

