

THE TEXAS WATER SOURCE

UPDATING COMACHE, HAMILTON, AND
CORYELL COUNTY LANDOWNERS ON
LAND MANAGEMENT AND WATER ISSUES

December 1, 2018

PROTECTING SOIL AND WATER

Texas has more than 60 million acres of forests and woodlands (about the size of Louisiana and Mississippi combined) that are both economically and environmentally significant. Land operations designed to enhance grazing, property access, wildlife, aesthetics, wildfire mitigation, or other management activities have the potential to negatively impact soil and water resources if poorly planned or implemented. Best Management Practices (BMPs) are the principal means of protecting soil and water resources during these management activities.



Riparian area buffer zones reduce the amount of sediment that enters streams. They also benefit wildlife by providing food, cover, travel corridors, and nesting sites.

In Texas, BMPs are voluntary conservation practices that protect soil and water resources - two key elements necessary for maintaining healthy, sustainable, and productive woodlands and rangelands. BMPs can include methods such as leaving a buffer zone of trees and/or other vegetation next to a stream, installing a culvert or low-water crossing to cross a waterway, or conducting mechanical operations along the contour of your property.

Texas A&M Forest Service, in cooperation with Texas State Soil and Water Conservation Board and numerous natural resource partners, develops and periodically updates BMP guidelines, and provides education, outreach, and training on their application.

The *Texas Forestry Best Management Practices Handbook* and *Best Management Practices Pictorial Directory* are geared towards East Texas operations, but the principles and methods also apply to Central and West Texas land management operations as well. Go to tfsweb.tamu.edu/

BMP to find these documents and other resources. The BMP guidebook also comes as a free app for your phone or tablet in Android and iOS versions.

Private land stewardship, through the implementation of BMPs, is one of the principle means of protecting water resources. Treating water at its origin, and not just its destination, is an efficient, cost-effective, and sustainable way to provide clean water for Texas.

For more information:

- <http://tfsweb.tamu.edu/BMP>
- <http://texasforestinfo.tamu.edu/mobileapps>
- <http://tfsweb.tamu.edu/water>

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Organization Spotlight

BRAZOS RIVER AUTHORITY

The 190-mile Llano River lies within the larger Brazos River basin. The Brazos River Authority (BRA) was created by the Texas Legislature in 1929 and was the first State agency in the United States created specifically for the purpose of developing and managing the water resources of an entire river basin. Today, the Authority's staff of 250 develop and distribute water supplies, provide water and wastewater treatment, monitor water quality, and pursue water conservation through public education programs.

Water Supply: The BRA currently holds water rights issued by the State of Texas for a system of reservoirs, a 30 percent share in a proposed reservoir, and its System Operation Permit. Collectively, these rights authorize the BRA to supply approximately one million acre-feet of water from the Brazos River basin annually for municipal, industrial, agricultural, and mining purposes.

BRA's water supply reservoirs - Possum Kingdom Lake, Lake Granbury, and Lake Limestone - were constructed and are owned and operated by the Brazos River Authority. A fourth reservoir, Allens Creek, is a permitted water storage lake planned for construction in the lower portion of the Brazos basin.

The eight US Army Corps of Engineers reservoirs were built for both flood control and water supply. The BRA

leases water supply storage space from the federal government in Lakes Proctor, Whitney, Aquilla, Belton, Stillhouse Hollow, Georgetown, Granger, and Somerville.

Water Quality: The Brazos River Authority works with state and federal authorities to monitor the quality of Brazos River basin surface water while providing clean, potable drinking water as well as wastewater services to the people of the Brazos basin.



The BRA owns and operates a regional potable water treatment system in East Williamson County

and operates wastewater treatment plants for several communities across the Brazos basin. These plants are upgraded regularly to ensure their treatment systems feature the latest in treatment technology to meet both state and federal standards.

For more than 20 years, the BRA has participated in the Texas Clean Rivers Program (CRP) by collecting water quality data from sites in reservoirs, creeks and streams across the river basin. Currently, the BRA monitors more than 100 sites.

For more information:

- www.brazos.org

BRAZOS RIVER AUTHORITY'S EDUCATION PROGRAMS

The Brazos River Authority provides numerous opportunities to learn about projects and services provided within the Brazos Basin as well as about water in general.

Water School is designed as an educational blog site within the BRA website. Each posting expands on a different water-related topic. Subjects include everything from water conservation, environmental topics, water treatment, reservoirs, and more. There is also a series of questions about the BRA and services provided.

The **BRA Speakers Bureau** provides staff members for speaking engagements on subjects related to water in the Brazos basin as well as BRA operations and services. The Speakers Bureau is free to community organizations such as chambers of commerce and gardening clubs. Groups frequently request our speakers to cover topics such as water planning, water and wastewater treatment, and flood management and planning.

Major Rivers is an educational curriculum designed to teach fourth and fifth grade students about the importance of Texas' major water resources. This curriculum helps students learn how water is treated, travels to their faucets, then back into the water system; and how to use this precious resource wisely.

The Brazos River Authority has supplied the Major Rivers program packages free-of-charge to schools within the Brazos basin since the early 1990s. The lessons incorporate science, math, language arts, and social studies with plenty of fun puzzles, games, and hands-on activities along the way to keep young learners interested.

The **Resource Library** is a compendium of articles BRA has published on their website and e-newsletter, "The Brazos Basin." Topics covered range from boating to drought to zebra mussels. This section also includes a glossary of water terms.

WHAT IS A WATERSHED?

A watershed is the area of land that drains into a specific water body; an area of land that water flows across, through, or under on its way to a stream, river, lake, or ocean.

At the top of the watershed is the land known as the headwaters. This is the high ground where precipitation first collects or it can be a spring from which a stream originates. From the headwaters, water flows downhill and eventually forms a permanent channel. Once a channel is formed it is called a stream. Small streams combine to form larger streams. The mouth of a stream is the place where it empties into a larger body of water.

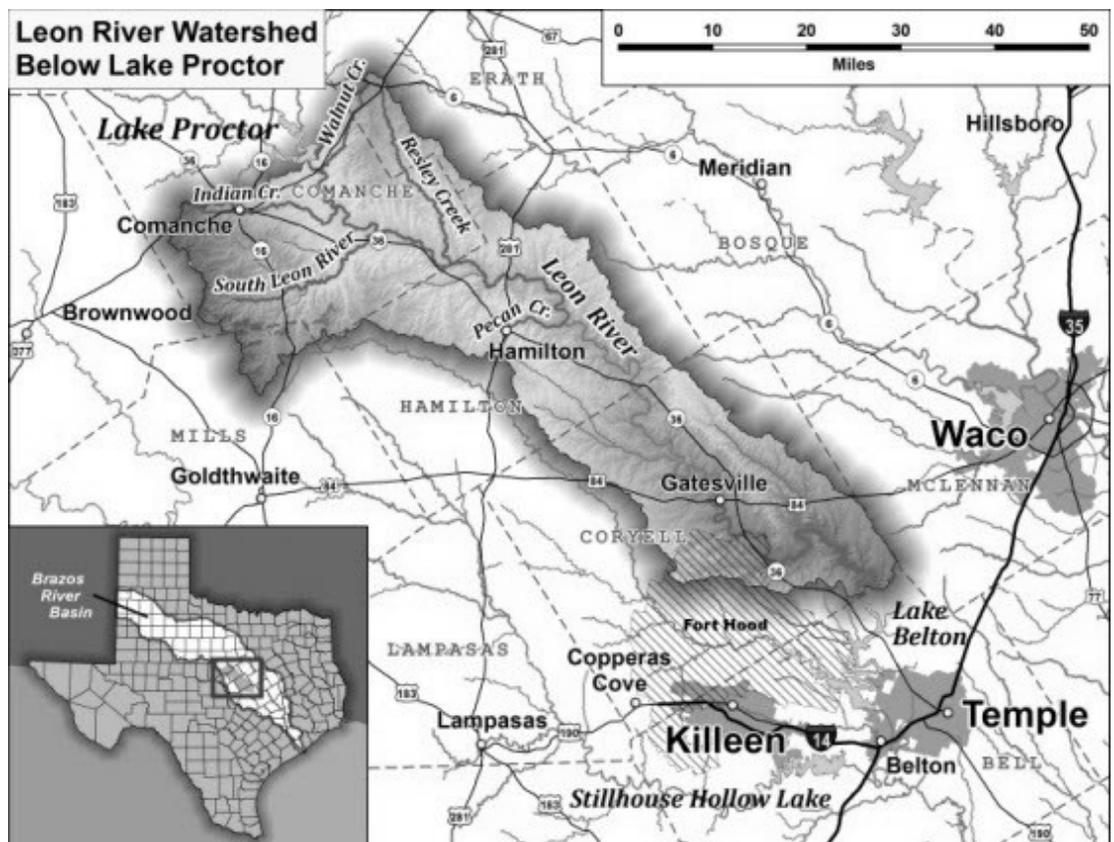
The Leon River watershed, located in the Brazos River Basin, is bound by Proctor Lake upstream and Belton Lake downstream. The Leon River is 190 miles long and the watershed is approximately 1,375 square miles, covering portions of Comanche, Erath, Hamilton, and Coryell Counties before it reaches Belton Lake. A small portion of the watershed lies within Mills County. For generations, farming and ranching have been a way of life throughout the watershed.

Everything that hap-

pens on the land in a watershed affects the water body into which it drains. A stream, pond, or wetland can only be as healthy as its watershed. How we use the land affects the health of our aquatic resources, and in turn affects us and what we do in the watershed.

Big or small, urban, suburban, or rural, we should all understand our connection to watersheds and strive to keep them healthy.

For more information on watersheds, go to: <http://texasaquaticscience.org/watershed-aquatic-science-texas>.



HELPFUL ONLINE TOOL FOR LANDOWNERS

An online tool called "My Land Management Connector" has been added to the **Texas Forest Information Portal**, a web-based application. "My Land Management Connector" is an application that connects landowners and land management service providers.

Landowners can find land management service providers in their area and check their credentials. Landowners can also send service requests to these service providers by entering their land management service needs into the mapping application.

Service providers can list their company and the services they provide in a specified area. Companies can view land management services that need to be completed in their service area. Through the application, service providers can send a request to landowners to provide the land management services they need.

Go to <http://texasforestinfo.tamu.edu> and click on "My Land Management Connector" or one of the many other applications that could help you in planning the management of your land.

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Online Videos and Webinars

Many resources are available to help you become a better land steward. For one, you can watch instructional videos on issues in the Leon River watershed. Go to <https://goo.gl/988w1v> and view videos on:

- Feral hog trapping and other management techniques
- Texas Stream Team monitoring techniques
- Bacterial Source Tracking
- Prescribed burn plan

There are also two complete presentations on:

- Texas Water Development Board and the State Water Implementation Fund for Texas (SWIFT) - by Doug Shaw
- Sustainable Groundwater Use Through the Lens of Rural Working Lands - by Mike Marshall

Also, check out the Texas A&M AgriLife Extension Service Natural Resource Webinars at <https://naturalresourcewebinars.tamu.edu>. You can see dates for upcoming live webinars, as well as view the recorded version of previous webinars.

Email: dwork@tfs.tamu.edu

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