

# The Clean Water Factory

As clean, fresh water becomes the new 'blue gold' of Texas, the riparian areas on your land become the most valuable part of your real estate.

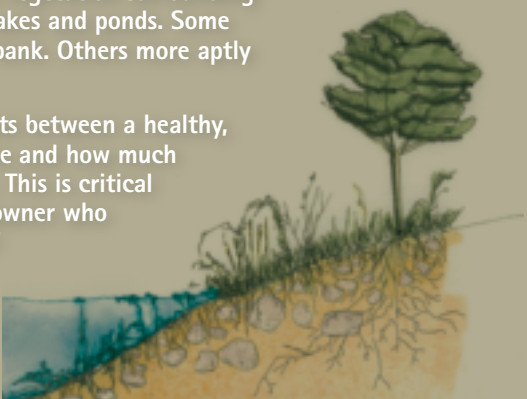
Riparian refers to the land area that flanks our waterways—the soil and vegetation surrounding creeks, streams, rivers, lakes and ponds. Some simply call it the creek bank. Others more aptly call it the sponge.

A direct correlation exists between a healthy, functioning riparian zone and how much clean water it produces. This is critical knowledge for the landowner who manages for 'water rich' property.

The health of the riparian area is determined by adequate vegetation, stable landform and woody debris. These elements are part of a natural functioning system that slows, filters and captures water flowing off the entire watershed when it rains and stores it during dry periods.

When working as nature designed it, this system holds the water like a sponge, enhancing ground-water recharge and ensuring prolonged spring flow. Deep root masses stabilize the soils and stream banks to reduce erosion, sedimentation, gravel migration and ultimately land loss.

A healthy riparian area is like a clean water factory—it not only adds value to your land, but it is the foundation of the entire riverene ecosystem. It is the critical bridge between the terrestrial and aquatic parts of your landscape.



THE FUNCTIONING CONDITION OF RIPARIAN AREAS IS A RESULT OF INTERACTION AMONG GEOLOGY, SOIL, WATER AND VEGETATION.



"Healthy, functioning riparian areas keep Nueces Basin headwater streams cooler, cleaner and flowing. With degradation, these values are at risk."

Con Mims, Executive Director, Nueces River Authority

The **Headwaters Riparian Network** is an extension of the Headwaters Stewardship Project begun in 2004 by the Nueces River Authority. **Funding provided by The Dixon Water Foundation and The Meadows Foundation** with guidance from the Natural Resource Conservation Service (NRCS) and cooperation from interested, local soil and water conservation districts. Additional funding is welcomed to continue and expand the landowners' Network.

## Network participation



It's simple. If you believe in the value of clean, plentiful water...if you love your land and want to protect your investment...if you want to understand the relationship between healthy land and healthy waters...if you want to learn to read the functioning condition of your riparian areas and identify land management strategies to maintain and improve that function, then you will want to join the **Headwaters Riparian Network**. Participation is voluntary and comes with no conditions.

Get the program schedule and put your name on the Network list today.

Contact Sky Jones-Lewey,  
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Other landowners may have discovered the value of healthy riparian lands through years of trial and error and are eager to share their knowledge. While many landowners are new to the area and some new to land ownership, most are well intentioned and want to be good stewards. The only thing lacking may simply be an awareness and understanding of riparian resources. This is why the **Headwaters Riparian Network** was created by the Nueces River Authority—to connect all landowners, large and small, with each other and with vital, hands-on information for intelligent land management. This **Network** not only brings landowners together to share local experience and knowledge, but also brings in noted riparian experts to lead a series of workshops, field days and on-the-ground landowner assistance visits.

Through this **Network**, the Nueces River Authority, the National Riparian Service Team and other regional riparian professionals will focus their attention on landowner needs in the upper Nueces Basin. All area landowners, ranch managers and land management decision-makers are encouraged to participate.

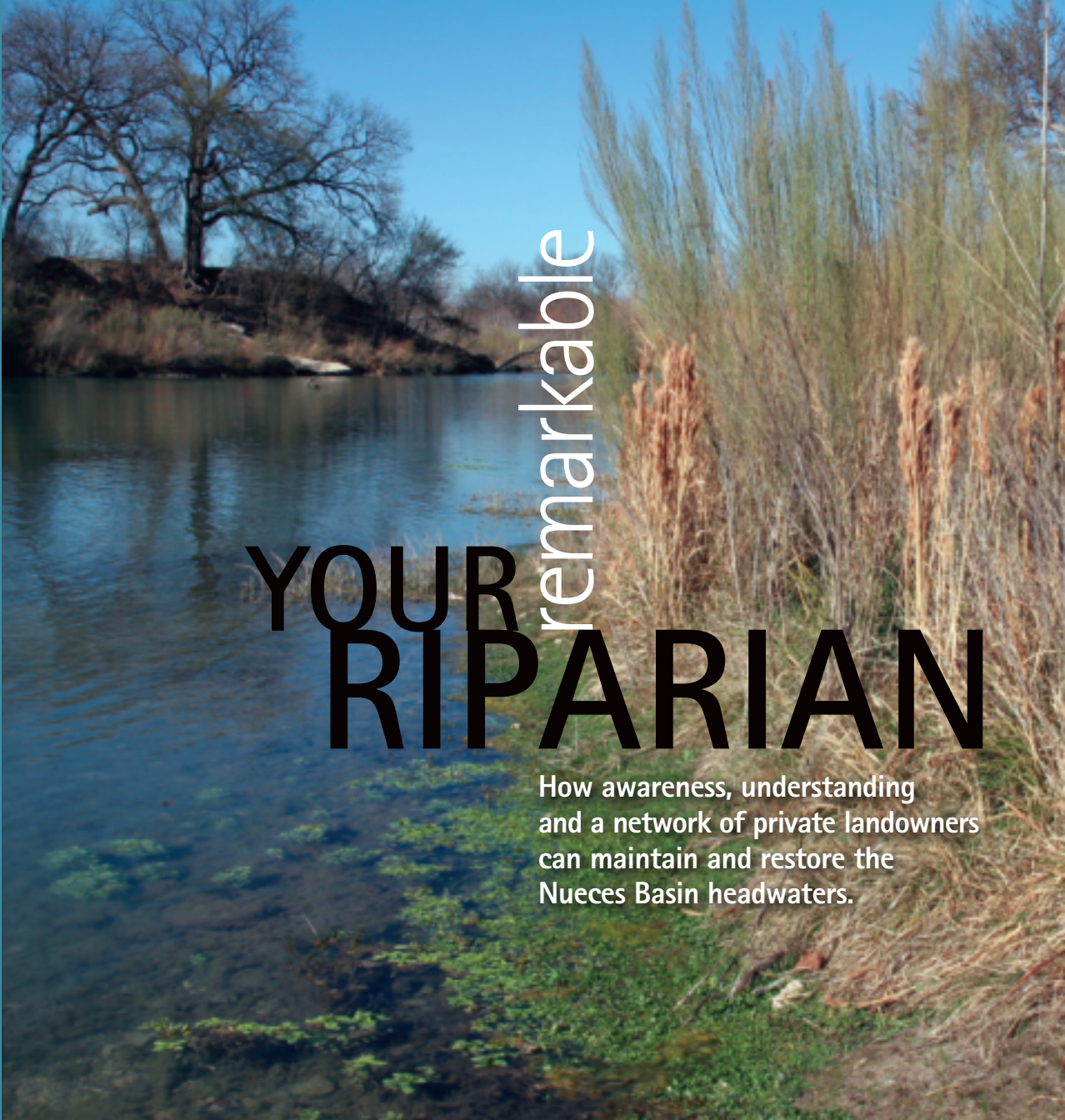


## Voluntary actions by private landowners



Unfortunately, riparian areas are often the least understood, the most underrated, undervalued, and sometimes the most abused part of our public and private landscape. Right now, the function and integrity of the riparian areas of some Nueces Basin streams are threatened. Broad changes in land use, population, and fragmentation of large tracts into smaller parcels are all having adverse effects. These changes are visible in eroded riverbanks. Non-native plants proliferate along the riparian corridor. Trash and illegal dumping are common in public areas. Bulldozers alter streambeds, and with impaired function, pollution from tainted runoff is a growing problem. The creeks and rivers that form the headwaters of the Nueces Basin have been some of the most pristine aquatic resources in Texas. But now 7 of the 11 classified stream segments in the upper Nueces Basin no longer meet accepted water quality standards. The once prolific clean water factories (riparian areas) of the Nueces Basin headwaters are now at risk of losing their function. And when the riparian area dries out the land can lose value, wildlife can suffer, and streams flows can be reduced.

## The Threatened Riparian



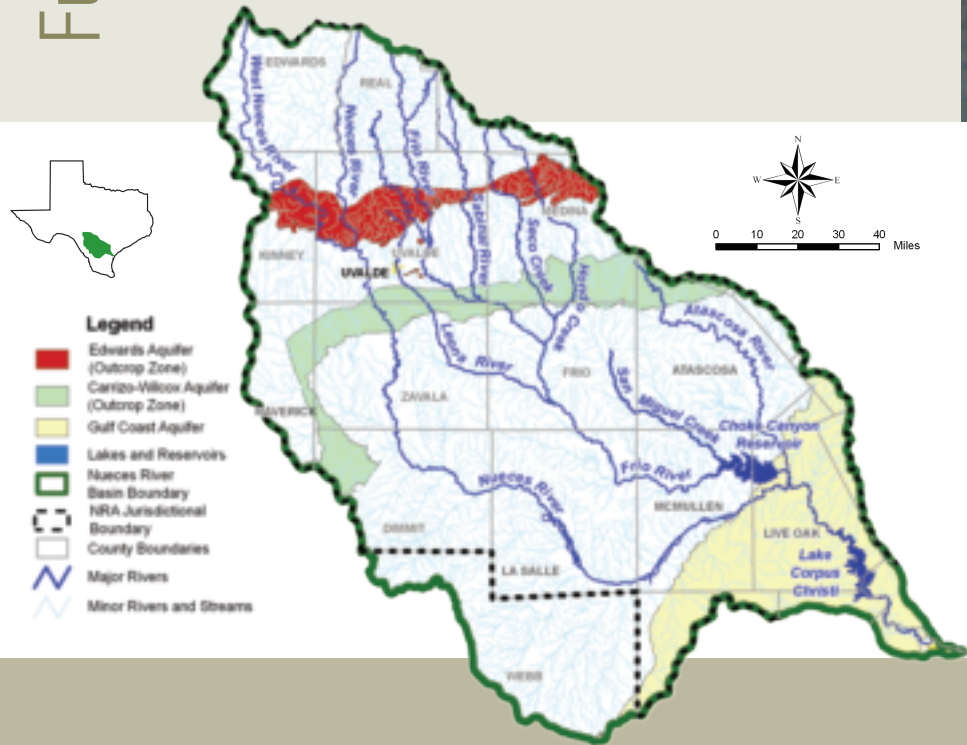
YOUR **REMARKABLE** RIPARIAN

How awareness, understanding and a network of private landowners can maintain and restore the Nueces Basin headwaters.



# Functions and Benefits of a Healthy Riparian System

- dissipates floodwater energy
- filters sediment
- stabilizes soil on banks and within channels
- stores water for slow, steady release
- recharges groundwater
- enhances property value
- enhances wildlife habitat
- supplies clear, flowing water, even in dry periods
- buffers water temperature
- contributes to aquatic food supply
- improves habitat conditions for fish and other aquatic life



"This project will build awareness and understanding about how our headwater rivers and streams work, how healthy riparian areas function and how they can help mitigate erosion and gravel migration, maintain water quality, and enhance wildlife habitat."

SKY JONES-LEWEY, RESOURCE PROTECTION AND EDUCATION DIRECTOR, NUECES RIVER AUTHORITY

# Characteristics of a Degraded Riparian System

- reduced perennial flow
- increased flood flows
- shallow-rooted vegetation and inadequate woody vegetation
- lack of shade or over-hanging vegetation (reduces fish and wildlife habitat)
- excessive erosion and stream bank collapse
- a wide stream channel with shallow water
- exposed soil or gravel on banks or in flood plain
- non-native plants and/or upland species invading riparian area
- turbidity or reduced clarity
- lowered levels of dissolved oxygen

