



“Currents” November 2023

Riparian Areas Support Water Quantity and Quality

Over much of its course from Hunt to Comfort, the Guadalupe River in Kerr County meanders in a natural, free flowing state as it has done for thousands of years. The unspoiled condition of the river is what allows it to support a vast diversity of aquatic life. It is also what makes the Guadalupe River a treasure to our community as an enhancement to the local economy and our quality of life. One of the most important aspects of the river that helps protect water quality and maintain water quantity is the vital strip of land along the waterway called the riparian area.

The riparian area is a band of dense, native vegetation along a body of water. This zone can be identified by high soil moisture, frequent flooding, and the unique collection of plants and animals found there. The distinct community of soil and vegetation form a network of roots and ground cover that intercepts runoff from upland areas and stabilizes the riverbank. These areas also act like a sponge because they can store water from rainfall or floods and slowly release it back into the river during times when it is not raining. As a result, riparian areas improve both water quality and quantity.

A healthy riparian area also helps prevent pollutants from reaching the river because contaminants are taken up into plant tissues, absorbed into soil particles, and modified by soil organisms. Excess sedimentation can also be a type of pollution, and riparian areas work to capture sediments before they reach the river. Too much sediment can suffocate fish eggs and aquatic insect larvae, and also interfere with recreational activities as it reduces water clarity and fills in waterbodies.

A healthy riparian area will stabilize the river or stream and protect it from erosion. Although some erosion occurs naturally, urbanization and overgrazing can decrease the size or function of the riparian area and its ability to protect the waterway. These natural buffers are often hard to protect because they may get in the way of our enjoyment of the river by blocking our view or our access. However, careful consideration and planning can allow our community to continue to grow along the banks of the Guadalupe, while at the same time preserving the dynamic integrity of the river.

There are numerous benefits to protecting and restoring riparian areas. Besides their ability to filter runoff and stabilize riverbanks, these buffers have been found to increase groundwater infiltration, store floodwater, increase wildlife habitat, and provide recreation areas. I encourage you to learn more about riparian areas whether or not you own property along the river. The Education Center section of the UGRA website (www.ugra.org/public-information/education/riparian-areas) contains links to resources about riparian stewardship including a recording of a webinar. Please view the Streamside Landowner Workshop video for tips on planting methods to restore riparian areas and strategies to develop riparian grow zones while still maintaining access to the river. The video also summarizes general riparian education topics like properly functioning condition and identification of common plants. Please contact me if you would like to learn more about riparian areas and the vegetation they support.

Let's Keep Our River Clean

Shelby Taber, Natural Resources Manager for UGRA, staber@ugra.org or (830) 896-5445