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Texas Rangelands and Water Tied Together

Texas rangelands and water are tied together forever! Much of the water that recharges our aquifers, feeds our thousands of springs and maintains our

streams comes from rangeland catchments (watersheds). About 111 million acres in Texas, over 70 percent of the state's total surface acres, are classified as rangelands. Rangelands provide forage for our livestock, recharge water for aquifers and wildlife habitat. In order to manage our valuable rangelands to maximize forage and habitat, we also should be aware of their crucial role in our state's water – not just the water produced on that property.

I just attended a public forum in Kerr County where ranchers, landowners and others voted together on perceived issues facing them. Water was a key issue in most of the top concerns. *A major statewide issue is that of an adequate supply of quality water, most of which is generated on rangeland.*

Additional emphasis is being placed in several river basins upon the proper management of riparian areas along our creeks and rivers. Riparian zones provide many important functions and a key one is the preservation of constant flows of clean water. Ranges with riparian zones require a higher degree of management and often require specialized grazing systems or rehabilitation practices. The focus on water as a rangeland watershed resource is a major change in Texas from the traditional forage/livestock production/wildlife management goals. All across the Southwestern and Western United States, water has been recognized as the most valuable product produced on rangelands. In fact, a prominent Texas rangeman once prophesied decades ago, that very fact—right on target!

Water is a major resource largely derived from rangeland watersheds. And,



Well managed rangeland such as the Brockman Ranch southeast of Sonora, Texas, provides a recharge zone for underground aquifers and brush-free rangeland revitalizes surface streams.

Texas' water supply is overextended due to rapidly increasing human population, often in limited water resource areas.

We are not growing and developing our rangeland catchments into housing subdivisions in a smart way. Growth is usually planned with high profits, maximum sales and little thought to available water resources, stormwater drainage or preservation of all the existing trees, shrubs and native turf possible.

There is a general lack of a statewide water conservation ethic. Texas, as we all know, has periodic droughts which heighten concern over the state's water supply and distribution. Since most of Texas' water resources originate from rangelands, these watersheds need be efficiently and effectively managed and conserved to meet present and future demands.

The majority of streams in Texas originate from springs and seeps on our ranges and then flow through rangeland. The riparian zones along these waterways are critical to producing and maintaining high water quality and quantity. Healthy riparian areas also are important to aquatic communities from the headwaters of the streams to the Gulf of Mexico and its crucial wetlands, bays and estuaries.

How we manage our rangelands makes

a huge difference in how much water is held where it falls, soaks in for the plants and, in a heavy rain, then working down to aquifers.

Range management practices can affect ground water recharge, non-point source pollution, stream flow rates and flooding. Leaving half and grazing half, as we have long heard and practiced, assures that our soils have good organic matter, a mulch to provide soil temperature leveling as well as a healthy soil biota. Soils in this condition are sponges to accept rainfall and to allow deep penetration of water.

Ranchers need to be aware of their options for management of rangeland catchments for production of clean water. Urban Texans and political leaders are beginning to understand the relationships between their tap water or recreation areas and Texas' rangelands.

I believe the time is close for towns/cities to cooperate and assist in funding not only selective brush management, but quality rangeland and riparian management that insures a flow of quality water for their needs. Scientifically selected ranches and rangelands would be targeted by teams of experts to maximize water production. Hopefully, this system, if developed, will keep more family Texas ranchers financially viable as well. ♦

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