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For immediate Release

Conserve Water – Eliminate Water Thirsty Brush

Stanton, Texas (August 12, 2014) - Have you ever been driving along the interstate seeing nothing but mesquite on both side of the road and then all of the sudden come to a clearing of open field? Or have you ever been driving down a country road and noticed an excavator out in a field grubbing brush or maybe just a group of mesquites out in a field turning brown and dying? And have you ever stopped to ponder on why you are seeing these changes? Many people, especially in West Texas where every drop of water counts, are beginning to use methods of brush control in order to conserve water. It's not just about clearing the land for use, but also about ridding the land of water sucking trees and brush in order to conserve water to better benefit the land and crops. In 1985, Senate Bill 1083 implemented the State Agriculture Code that provide for "the selective control, removal, or reduction of noxious brush such as mesquite, prickly pear, saltcedar or other phreatophytes that consume water to a degree that is detrimental to water conservation" (Chapter 203, Brush Control).

The most popular and successful methods of brush control are mechanical, chemical and prescribed burn. The idea is that by removing brush there would be less interception of rainfall and so there would be more runoffs to streams or that by clearing brush there would be more infiltration of rainfall into the ground which would cause higher flow in small springs and seeps that feed the recharge streams. (http://www.edwardsaquifer.net/brush.html)

There are three of these water thieving species of brush that have gained the most attention in Texas: mesquite, juniper, and saltcedar. In 1999 a study of the North Concho River watershed reported that out of 100 estimated juniper trees and 130 million mesquite trees in the watershed, the amount of water consumption between the two trees was near 2 million acre feet of water per year. Thus helping support the idea that by clearing and removing these species would help to increase ground and surface water supplies.

The junipers that establish in overgrazed lands are young and vigorous, dense and multi-trunked, and shallow rooted. The presence of these dense, shallow-rooted shrubs also means less water reaches the soil, subsurface flows and deep drainage. Ashe Junipers are the most common type of Juniper found in Texas. According to studies, these trees have been found to consume as much as 33 gallons of water per day. As more time goes by, lawmakers are trying more and more to bring solutions to the table on how to keep water in the ground. Not only for

drinking but for agriculture as well. Ken Rainwater, former director of the Water Resources Center at Texas Tech University, gave testimony to cedar tree removal and talked of some of the problems that are being faced due to the water thirsty trees saying “That water that might have been available for soil moisture. And groundwater infiltration is also deteriorated”.

Mesquite is one of the most abundant brushes in West Texas. Water use by mesquite has shown similar variability. By measuring soil and plant water potentials, Easter and Sosebee (1975) studied mesquite water use in irrigated and non-irrigated conditions. The trees growing under irrigated conditions produced two times more foliage and showed greater soil water depletion than the trees growing without irrigation. In north Texas some adult honey mesquite (8-12 ft. tall) were found to use up to 20 gallons of water per day during ideal mid-summer growing conditions and adequate soil moisture (Ansley et al. 1991a).

Saltcedars have become an ecological threat, as they are drought tolerant and a fire-adapted species, which have a long tap root that allows them to draw water from the water table and interfere with natural aquatic systems. Depending on availability, they can also utilize water in the upper part of the ground, and can swiftly switch from guzzling one water source to the other. They can also disturb the structure and stability of native plant communities and destroy native wildlife habitat by outcompeting and replacing native plant species, dominating limited sources of moisture, and increasing the frequency, intensity and effect of fires and floods. (http://www.texasinvasives.org/plant_database/detail.php?symbol=TARA)

The Permian Basin Underground Water Conservation District invites you to view their website at www.pbuwcd.com for more information on brush control. You can also call their office at 432-756-2136 or email them at permianbasin@sbcglobal.net.

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