



## WATER RESOURCES RESEARCH GRANT PROPOSAL

**Project ID:** 2003TX95B

**Title:** Measuring Infiltration Using a Rainfall Simulator to Comparing Shrub and Water Interactions of Brush Species

**Project Type:** Research

**Focus Categories:** Hydrology, Water Quantity, Surface Water

**Keywords:** rainfall simulator, brush control, aquifer recharge, surface runoff

**Start Date:** 03/01/2003

**End Date:** 02/28/2004

**Federal Funds:** \$4182.00

**Matching Funds:** \$10657.00

**Congressional District:** 5

**Principal Investigators:** Porter, Shane; Munster, Clyde L. (Texas A&M University)

**Abstract:** Several programs are now underway to determine the extent to which brush control may increase water yields in watersheds throughout Texas. This paired watershed study will be carried out at the Natural Bridge Caverns which is located near the Honey Creek Natural Wildlife Area near San Antonio. The study will use a newly developed rainfall simulator in paired watershed studies of a rangeland site where nuisance brush species are a problem. The rainfall simulator will first be used to establish baseline data about the hydrology of the site, and runoff will be measured using flumes, stream gages, and soil moisture probes. Once data about rainfall and infiltration have been gathered, the effects of brush control methods on the hydrology of the site will be determined. Through this study, new information will be gathered about how brush control may affect the infiltration of precipitation into the saturated zone and adjacent groundwater systems.

*[U.S. Department of the Interior](#), [U.S. Geological Survey](#)*

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