

GAM run 03-23

by **Richard Smith**

Texas Water Development Board
Groundwater Availability Modeling Section
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REQUESTOR:

Mr. Ken Carver, Permian Basin Underground Water Conservation District

DESCRIPTION OF REQUEST:

Mr. Carver requested the following information from the Southern Ogallala aquifer Groundwater Availability Model (GAM) for the Permian Basin Underground Water Conservation District (UWCD):

- Water budget and
- Total available storage.

METHODS:

To address the request, we:

- Ran the Southern Ogallala aquifer Groundwater Availability Model (Blandford and others, 2003) for the projected period 2000-2050 with average recharge and queried the budget files in Howard and Martin counties excluding the City of Big Spring; and
- Estimated total aquifer storage in 2003.

PARAMETERS AND ASSUMPTIONS:

None: Data request.

RESULTS:

The long-term average recharge for the Permian Basin UWCD was estimated as 11,790 acre-ft per year and the 2003 total available storage was estimated as 9.45 million acre-ft.

REFERENCES:

Blandford, T. N., Blazer, D. J., Calhoun, K. C., Dutton, A. R., Naing, T., Reedy, R. C., and Scanlon, B. R., 2003, Groundwater Availability of the Southern Ogallala Aquifer in Texas and New Mexico; Numerical Simulations Through 2050: Final Report prepared for the Texas Water Development Board.