# GAM run 03-09

## By Richard M. Smith

Texas Water Development Board Groundwater Availability Modeling Section (512) 936-0877 July 21, 2003

## **REQUESTOR:**

Mr. Jason Coleman, South Plains Underground Water Conservation District

## **DESCRIPTION OF REQUEST:**

What is the water budget for Terry County in the Ogallala South model for the next tenyear planning period?

## **METHOD:**

Run the Ogallala South model (T. N. Blandford and others, 2003) for the 2050 average recharge values and query the budget files for the Terry County sub-region for the 2003-2014 planning period.

### PARAMETERS AND ASSUMPTIONS:

None: data request

### **RESULTS:**

### Water Budget

Table 1 shows the water budget for the Southern Ogallala model in Terry County for the years 2003-2014.

### **REFERENCE:**

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

								Total		
Year	In-to- Storage	Water from Storage	X-flow in	X-flow out	Wells	Springs and	Recharge	In	Out	% diff
	Ū	U				Seeps				
2003	6,922	36,976	2,403	2,916	101,668	813	72,923	112,302	112,319	-0.01
2004	6,822	36,316	2,394	2,869	101,130	811	72,923	111,633	111,632	0
2005	6,742	35,367	2,385	2,813	100,200	810	72,798	110,550	110,565	-0.01
2006	6,661	34,406	2,377	2,759	99,236	808	72,665	109,448	109,464	-0.01
2007	6,587	33,450	2,370	2,698	98,275	807	72,531	108,351	108,367	-0.01
2008	6,521	32,805	2,363	2,632	97,743	805	72,531	107,699	107,701	0
2009	6,478	31,897	2,354	2,574	96,817	804	72,405	106,657	106,673	-0.02
2010	6,449	30,438	2,353	2,530	95,040	802	72,016	104,807	104,822	-0.01
2011	6,415	29,278	2,355	2,498	93,704	801	71,769	103,402	103,418	-0.02
2012	6,366	28,728	2,356	2,478	93,213	800	71,769	102,853	102,857	0
2013	6,326	28,158	2,358	2,453	92,723	799	71,769	102,285	102,301	-0.02
2014	6,292	27,605	2,359	2,423	92,233	797	71,769	101,732	101,746	-0.01

 
 Table 1. Terry County flow budget for the Southern Ogallala aquifer GAM in acre-feet
per year.

Notes:

- 1.
- In-to-storage refers to water put into storage Water from storage refers to water withdrawn from storage X-flow in refers to lateral flow into the county. X-flow out refers to lateral flow out of the county. 2.
- 3.
- 4.
- 5. Wells is for pumping input.
- 6. The numbers are rounded to the nearest 1 acre-ft.