

BRAZOS G

WATER PLANNING GROUP

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COUNTIES

Bell
Bosque
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Burlison
Callahan
Comanche
Coryell
Eastland
Erath
Falls
Fisher
Grimes
Hamilton
Haskell
Hill
Hood
Johnson
Jones
Kent
Knox
Lampasas
Lee
Limestone
McLennan
Milam
Nolan
Palo Pinto
Robertson
Shackelford
Somervell
Stephens
Stonewall
Taylor
Throckmorton
Washington
Williamson
Young

BRAZOS RIVER AUTHORITY, Administrative Agent
Teresa Clark, Project Manager
P.O. Box 7555 ♦ Waco, Texas 76714-7555
(254) 761-3100 ♦ Fax (254) 761-3204



To: Brazos G RWPG Members
From: Mike Morrison, Chair
CC: Teresa Clark, David Dunn, Larry Land
Date: November 1, 2005

Subject: Groundwater Availability Estimates in Lee and Milam Counties

From conversations with RWPG members, I understand there exists some confusion over the basis for the estimates of groundwater availability from the Carrizo-Wilcox Aquifer in Lee and Milam Counties. As we enter into the final months of plan preparation, it is essential that all parties involved understand fully the methodology involved in preparing these estimates.

In the 2001 Brazos G Regional Water Plan (2001 Plan), groundwater availability in the Carrizo-Wilcox Aquifer was projected using estimates provided by the Texas Water Development Board (TWDB). The majority of these approximations originated from research completed in the 1970's, and were based upon the best analyses and data available at the time. For the 2006 Plan, HDR Engineering, Inc. (HDR) reviewed the earlier projections, adjusting them to account for differing areas of counties overlying the aquifer system and presented their results to the Brazos G RWPG for review. The Brazos G RWPG subsequently referred the matter for additional study to the Brazos G Groundwater Availability Workgroup (Workgroup).

The Workgroup directed HDR to mirror the recommended availability estimates for pumping used by TWDB in their recently completed Groundwater Availability Model (GAM) for the Central Carrizo-Wilcox Aquifer. A GAM model does not directly specify water availability, but instead calculates the effects of withdrawing groundwater from an aquifer system at specific pumping rates. Effects studied include water level fluctuations, increases or decreases in water discharged to or recharged from streams, and transfers of water (leakage) between overlying and underlying aquifers. It is up to the user of the model (in this case the Brazos G RWPG) to determine if the potential effects of a given level of pumping are acceptable.

HDR used this modeling method and presented the effects of various levels of pumping on the aquifer system at numerous Workgroup and RWPG meetings. Based upon the information provided by HDR, the Workgroup recommended, and the RWPG adopted, estimated groundwater availability from the Carrizo-Wilcox Aquifer in Lee County of 45,000 acre-feet per year (acft/yr) and in Milam County of 45,000 acft/yr. Both estimates were discussed at length during several

Workgroup and RWPG meetings, and alternative estimates for Lee County suggested by the Lost Pines Groundwater Conservation District were considered but not adopted.

There has been discussion that the HDR estimates were based largely on water supply agreements between Alcoa, the San Antonio Water System (SAWS), and the San Antonio electric utility, City Public Service (CPS). Such is not the case. Groundwater availability estimates were determined independently of these contracts. The contracts between Alcoa, SAWS and CPS provide for a total 44,618 acft/yr to be supplied to SAWS from Lee and Milam Counties (combined). This quantity is included in the 2001 Regional Water Plan for the South Central Texas Area (Region L) and in the 2006 Initially Prepared Region L Plan. A combined 90,000 acft/yr is estimated by Brazos G to be available in Lee and Milam Counties, far in excess of the 44,618 acft/yr specified in the SAWS contracts.

The potential supply of the Lee and Milam County groundwater to San Antonio is noted in Table 4A-23 (page 4A-31) and is discussed briefly in the water supply plans for both Lee County (page 4C-143) and Milam County (page 4C-175). The SAWS board of directors has recently taken action removing these supplies from the SAWS long-term water plan. At this time, Region L has not acted to remove this supply as a water management strategy in the Region L Plan, although they may yet do so. HDR will advise us at our next meeting as to what action, if any, Region L has taken and will recommend appropriate modifications to the text of the 2006 Plan.

If you would like to discuss this further, please contact me (325-676-6386), David Dunn (512-912-5136) or Larry Land (512-912-5165). I look forward to seeing you all at the RWPG meeting on November 16.