

The Cameron Herald

Trying to determine the future of groundwater

By Curtis Chubb, Special to The Herald, Sep 19, 2008

The Post Oak Savannah Groundwater Conservation District either held or participated in four public meetings during August and September. The common theme of the meetings was the “desired future conditions” (DFC) of the aquifers.

The Texas Legislature passed House Bill 1763 in 2005 that requires groundwater districts managing the same aquifer to work together. This was an important step since the pumping of an aquifer affects the entire aquifer, not just that part of the aquifer within the boundaries of an individual groundwater district.

The State of Texas also took it one step further - HB 1763 requires the groundwater districts overlying the same aquifer to jointly determine the DFC of the aquifer before September 2010.

Okay, what is a DFC? As the name implies, a DFC is the desired condition of an aquifer in the future. Examples of how ‘desired future conditions’ of an aquifer can be measured are: 1) inflow must equal outflow; 2) can be no degradation of groundwater quality; 3) spring flow must be maintained at a certain level; and 4) water level decline cannot exceed a pre-determined value.

Post Oak and its four fellow groundwater districts chose ‘pre-determined decline in water level’ as their DFC. There are too many numbers to include in this short report - suffice it to say that the presently-proposed DFCs include drawdowns of 266 feet within 50 years.

The DFC being considered for each aquifer can be viewed at Post Oak’s office in Milano. Be aware, that the DFCs are still in flux; the goal is to finalize them in three months.

The next step in the DFC process involves the state. The groundwater districts submit the DFCs to the Texas Water Development Board, which will then determine the total amount of available groundwater for each aquifer within a groundwater district.

So, not only did HB 1763 force groundwater districts to be concerned about the entire aquifer, not just their portion of the aquifer - it provided a new aquifer management tool by authorizing districts to limit how many gallons of groundwater can be pumped.

The above review of the DFC process clearly indicates that the state’s determination of available groundwater depends ultimately on the DFCs determined by the groundwater districts.

To ensure that the DFCs for our area truly reflect the will of all five districts, the DFCs must be approved by four of the five districts before being reported to the state. This 2/3 approval requirement has caused a lot of gnashing of teeth not only by the groundwater district boards who have lost a measure of independence, but by the large volume groundwater pumpers. For example, what happens if a groundwater district finds that its well permits allow more groundwater to be pumped than the state determines is available?

There are two often over-looked aspects of HB 1763. First, the DFC process has to be repeated every five years. This requirement will allow new groundwater data to be used to refine the

DFCs. Secondly, the adopted DFCs and groundwater management plans can be challenged at the state level either by a groundwater district or an individual with “a legally defined interest in groundwater.”

An example of the power of the public occurred at the August 28 meeting which was attended by more than 50 people.

Although some people appear to have resigned themselves to the philosophy that ‘big cities are going to take our groundwater, no matter what,’ there appears to be more people who do not subscribe to that philosophy as evidenced by the comments at the meeting.

The sentiment of the latter is reflected by a statement made in 2005 by John Burke, head of Aqua Water (a nonprofit water provider based in Bastrop). He was responding to a question about San Antonio Water System’s negotiations with Alcoa to transport 60,000 acre-feet of groundwater annually from Milam and Lee Counties to San Antonio (which attracted organized local opposition and failed). Burke said that if you reversed the situation and transported groundwater from San Antonio to Central Texas and “went down to San Antonio and the Edwards Aquifer and said I’m gonna draw down 100 feet over 1,400 square miles,” people in San Antonio would not take it lying down.

Another example of the power of the public occurred at the Aug. 28 meeting when Steve Box from Environmental Stewardship asked if the effects of the expected drawdowns on springs, creek flow, and river flow had been determined.

In response to Box’s question, an extended discussion about the limitations of mathematical modeling of aquifers ensued. Cindy Ridgeway, P.G., of the Texas Water Development Board, said that the ‘groundwater availability models’ do not interact well with ‘surface water availability models’.

Box then said the problems with the mathematical models emphasize the importance of having DFCs based on spring flow, instead of water level declines. He said that the spring flows would serve as a “canary” to warn about damage to the surface ecology.

The discussion about the effects of aquifer drawdowns on surface ecology and surface water flows was one of the few times that anyone had spoken about the importance of understanding the interaction between aquifers and surface water at Post Oak meetings.

Surface water was also mentioned at a March 2005 Post Oak meeting. At that meeting, Ridge Kaiser, hydrogeologist for Blue Water Systems LP, stated that groundwater which escapes from aquifers naturally (such as into springs and rivers) is “wasted groundwater.”

The power of public input is evidenced by the fact that at the September 9 Post Oak board meeting, a new issue was added to the list of groundwater availability model issues. That issue was “surface and groundwater interactions”.

The next groundwater stakeholders meeting is scheduled for Oct. 30.

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