

Update from the Upper Trinity Groundwater Conservation District

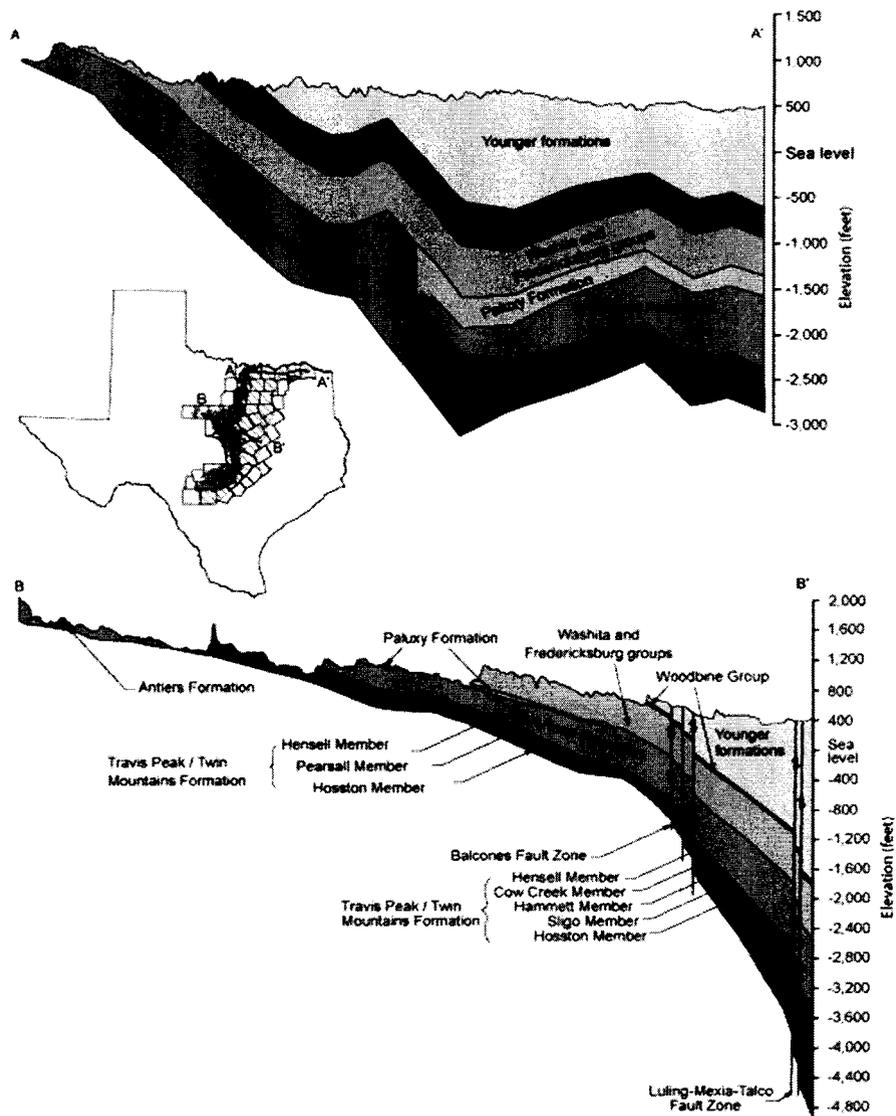
Wise County Commissioners Court – September 28, 2015

Recent activities:

- Well monitoring
- Education and Outreach
- Importance of registering your well

Joint Groundwater Planning: Groundwater Management Area 8 (GMA 8)

- How the process works – State vs. Local
- What are Desired Future Conditions (DFCs) and Modeled Available Groundwater (MAGs)
 - DFCs are the goals that are adopted by each Groundwater District and the GMA as a whole, and are the guiding factor for how Districts will manage groundwater within their jurisdiction.
 - MAGs are the values (amount of water) models say can be produced each year over a set time period in order to achieve a DFC.
- How the Decisions are made – Science.
 - The Texas Legislature has made it clear that these decisions must be based on sound science.
 - The UTGCD and a few other Districts in GMA 8 funded the update of the Northern Trinity and Woodbine Groundwater Availability Model (GAM). (The image below shows a cross section of the layers that make up the Trinity Aquifer group).
 - Model runs that provide data to help the Board of Directors of the UTGCD decide upon DFCs. (preliminary results can be found in the Table on the next page)
 - Run 5 – simulates what would happen to water levels if current pumping levels were held constant through 2070.
 - Run 6 – actually 5 runs that simulate what would happen to water levels if current pumping was decreased by %30 and increased by %10, %20, %30, %60 and %90.
- Other factors to be considered.
 - Socioeconomic Impacts – by statute Groundwater Districts and GMAs must consider the potential impacts of adopting a certain DFC. These could be either positive or negative:
 - Impacts to private property – similar to socioeconomic impacts, must be considered by statute.



Modified from Klemm and others, 1975; Nordstrom, 1982

Average Water Level Declines Between 2010 and 2070 for Wise County (Feet)						Wells Impacted
	Paluxy	Glen Rose	Hensell	Pearsall	Hosston	# of "dry wells" of the 3,700 wells
Current Level of Pumping (5)	3	2	4	9	4	133
30% Reduction in Pumping (6.1)	-4	-8	-14	-32	-45	114
10% Increase in Pumping (6.5)	6	6	10	22	21	
20% Increase in Pumping (6.6)	8	9	16	36	37	
30% Increase in Pumping (6.2)	11	13	21	50	54	177
60% Increase in Pumping (6.3)	19	23	39	90	103	249
90% Increase in Pumping (6.4)	29	34	57	132	153	372

Negative values indicate an increase in water levels

Values in Red indicate that the water level would fall below the bottom of the aquifer