

## Item 6 – Adoption of Variances & Possible DFCs for BVGCD Aquifers

Members of GMA 12 have discussed but not adopted the variances to be used associated with the running of the Queen City/Sparta/Carrizo-Wilcox and Yegua-Jackson aquifers once submitted to the Texas Water Development Board. This is important because it allows for flexibility by member districts when adopting their Desired Future Conditions acknowledging:

- The groundwater model is not perfect.
- When the groundwater model is run by two separate entities, the results will likely vary slightly.

Variances for the last DFC planning cycle were allowed to be up to the following percentages of the average drawdowns calculated with the GAMs for each aquifer over the 2000 to 2070 planning period:

Sparta	10%
Queen City	10%
Carrizo	10%
Calvert Bluff	10%
Simsboro	5%
Hooper	10%
Yegua-Jackson	10%
Brazos River Alluvium	NA

Discussions about the variances for this current 2021 planning cycle have varied widely beginning at as much as 25%. Most of the conversations of late seem to point to using a 10% variance for all aquifers.

The real effect of the adopted variance allows a district to propose aquifer DFCs to GMA 12 plus or minus the allowed variance related to the expected DFC result when run by the Texas Water Development Board. An example of this methodology is:

***Carrizo Aquifer – TWDB DFC result (84') – assuming a maximum 10% variance allows the District to propose a DFC for the aquifer between 75.6' and 92.4'.***

Below is a table showing the average drawdowns calculated by GMA 12 for the 2000 to 2070 period for each aquifer using GMA 12 Run S-12, applying a 10% variance to those results, and the range the District can propose relative to those assumptions:

<b>Aquifer</b>	<b>GMA 12 Result</b>	<b>Lower-Upper Range</b>	<b>5% Below</b>	<b>5% Above</b>
Sparta	50'	45'-55'	47.5'	52.5'
Queen City	43'	38.7'-47.3'	41'	45'
Carrizo	84'	75.6'-92.4'	79.8'	88.2'
Calvert Bluff	116'	104.4'-127.6'	110.2'	121.8'
Simsboro	261'	234.9'-287.1'	248'	274'
Hooper	178'	160.2'-195.8'	169.1'	186.9'
Yegua-Jackson	61'	54.9'-67.1'	58'	64'

Once the GAM is run by TWDB, the DFC proposed by the District must fall within the prescribed variance adopted by GMA 12. If the proposed DFC falls outside the range, it is deemed "unfeasible" and must be addressed by the District and, ultimately, GMA 12.