Public Comments regarding 2010-2070 Desired Future Condition (DFC) "drawdowns" assigned to the BVGCD aquifers.

July 8, 2016

I applaud the pause in the Carrizo-Wilcox Group groundwater availability predictions that would exceed the annual 2060 MAG levels for most aquifers. It is my understanding that more comprehensive analysis of these aquifers' water budgets; i.e. their hydrologic data, human demands, and our ecological/environmental systems' needs, will be more reliably represented in the new GAM runs. This pause appeases the public concerns regarding Predictive Scenario-4 proposed DFCs, but the "questionable" data, "uncertain" demands, and inadequate environmental/socioeconomic measurements still makes any calculation of "safe" drawdowns problematic. The fact remains that the datasets included in these models are only as good as the actual data collected and the assumptions made according to the best science available.

As a layman, it is very difficult to attend all of the meetings. It is even harder to understand presentation slides without context or explanation. So, I may be completely off base with my comments. But, it is my understanding that "sustainable yield" of an aquifer requires a tabulation of its recharge, discharge and storage capacity plus a clear understanding of the undesirable condition(s) that signal(s) enough is enough. We seem to just mollify the DFC numbers *at-will* by "ramping-up" to meet the population growth and/or other contractual demands, kicking the can further down the road. These increasing human demands will definitely worsen drawdowns, but do we truly know the groundwater extraction limits to ensure "sustainable yields" for future generations. At some point there has to be a finite determination of the "beginning water level" and the "point (or level) of no return." Then our water planning will have real groundwater-surface parameters and the DFC guidelines become meaningful as compared to monitored well water levels.

As for Brazos Valley GCD (BVGCD), progress in developing methodologies to improve data collection has been developed. However, these address only the manual how-to issues of taking artesian head readings in a consistent manner. My concern is still the selection of wells used to

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monitor our groundwater resources and the resulting effects of excessive discharge on each aquifer within the areal boundaries of Robertson County. If it is impractical to monitor all wells, then there should be an effort to select a statistical sample that represents each aquifer's underground conformation.

As stated in previous critiques, I am still concerned that the BVGCD is not aggressively addressing *"other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water"* as it relates to the Brazos River Basin. Many known aquifer-reaches along the Brazos River in Robertson and Brazos counties contribute to the natural recharge and discharge of our aquifers. The WAM has eliminated Brazos River monitoring points in northern Robertson County. Why? The GMA-12's new GAM study has included specific goals of investigating and quantifying the Lower Colorado River Basin's groundwater – surface water interactions. Why would the Brazos River Basin not have similar study criteria? I realize the alluvium aquifers are different, but there are still significant interactions between the other major aquifers and the Brazos River that must be investigated and protected to assure a healthy balance. When there is talk of off-channel reservoirs pumping thousands of acre-feet of "pulse-flow" from the Brazos River, the District must at least ask the question, "How will this affect our groundwater?" When an OCR site is plotted over a significant part of an aquifer's recharge zone; certainly, one must ask how this might have adverse hydrologic and ecological impacts.

I am concerned the Hooper Aquifer's projected annual pumping is above the 2060 MAG assignments. The response to the question of why has been because the previous DFC/MAG calculations were woefully understated based on "what we are seeing." Is this based on the same data that has been deemed questionable or needs better science? I would feel better about this significant "recalculation" if there was a narrative that explained exactly why the Hooper wells are surprisingly stable and/or the reason(s) for these unexpected results? Perhaps these wells may not be the best wells to monitor the Hooper's health should deeper, brackish wells are permitted for oil/gas use.

When decisions are made that seem to make the DFCs fit what we would like to see versus what the data may or may not yield, I lose confidence in the District/ GMA-12's reporting and decision-making.

Again, I may be way off in my perceptions of what the GAM-12's DFC for 2000-2070 mean. As a member of the public, perhaps if I am misreading the information provided, the public information and education requirements of the GAM-12 are inadequate to explain their decision-making so the public has a better understanding. Just to declare a public meeting and provide charts without narratives is confusing to the general public.

Thank you for this opportunity to share my concerns.

	Aquifer	BVGCD 2010 DFCs 2000-2059		BVGCD 2016 proposed DFCs 2000-2069		BVGCD 2060 MAG (allowed annual pumping in acft)		BVGCD 2070 projected annual pumping in acft	2060 MAG GMA12 total pumping	2070 GMA12 projected pumping in acft
Carrizo-Wilcox Group	Sparta	15	↓	12		7923	↑	9019	23597	↑24317
	Queen City	12	=	12		529	↑	1200	3708	↑ 6701
	Carrizo	47	↑	61		5496	≈	5494	36695	↑41173
	Calvert Bluff	106	↑	125		1755	≈	1758	10690	10696
	Simsboro	270	↑	295		96185	≈	96187	189105	189119
	Hooper	170	↑	207		316	↑	2001	8157	↑14624
	Yegua	70	=	70						
	Jackson	110	↑	114						
	Yegua-Jackson			65		7071				
	BRA – RC			30%						
	BRA - Brazos			40%						

Six times original MAG

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