However, the GAMs are not suitable for developing quantitative relationship between pumping and groundwater-surface water exchange without refinement in their representation of changing surface water levels over time and subsequent validation using measured field data.

GMA 12 acknowledges that both spring flow and groundwater-surface water interactions are potentially important environmental issues. However, GMA 12 did not set a DFC for these flow components for several reasons.

His comments are very detailed and quoting Bill is way beyond the intent or expected content of an ER

NOTE: The Texas Instream Flows Program (TIFP) is not currently an active program. The TWDB website has not been updated since before 2013. TIFP is only a study program and studies have taken place in only a limited number of areas (Brazos River but not Colorado River). The program produces information but has no implementation component to address flow protection. The information provided is designed to be used to inform management decisions affecting flows, which includes management of groundwater resources that affect stream flows. However, no reports are available that provide such management guidance. There are no dam releases and no ongoing monitoring components in the Texas Instream Flow Program. There is no ongoing monitoring component of that program even in the limited rivers where SB 1 studies have been undertaken. Most importantly, there is no component of the program that will result in actual protection of flows to compensate for loss of groundwater contributions. Instead, the program provides information to help guide management decisions, including management of groundwater, such as through the establishment of DFCs. The whole point of consideration of surface water impacts in the DFC process is to help prevent depletion of surface flows.

The only surface water-groundwater monitoring program that has taken place in the Bastrop reach of theColorado River was a pilot program conducted by the LCRA under conract to the TWDB as a result of funding provide via the Senate Bill 3 (SB3) funding in response to the Colorado and Lavaca Basin and Bay Area Stakeholder Committe (CL-BBASC) request for such an investigation. A final report[1] on the program has been submitted. Though the report indicates the equipment is set up to collect data over a five (5) year period, there is no affirmative information that indicates such monitoring is actually taking place. Further, the LCRA has consistently objected[2] to a surface water monitoring program in the Lost Pines District. As such, there is no "early warning system" in place that would proved GMA-12 or Lost Pines District in the event that "groundwater pumping ever does become a problem".

Finally, eventhough the GAM is not yet able to provide quantitative predictions regarding how pumping will impact groundwater flows to springs or rivers and streams, does not diminish the validity of the qualitative trend predictions regarding these potential impacts.

As stated by Dr. William J. Hutchison, expert witness for Lost Pines' General Manager in a recent contested case hearing that resulted in a final decision that adopted these findings:

"From a regional groundwater perspective, the [new] model does show a reduction in groundwater

[1] https://www.twdb.texas.gov/publications/reports/contracted_reports/doc/1900012305.pdf
[2] Marisa Perales January 19, 2022 brief response to Greg Ellis regarding LCRA's motion for rehearing in Lost Pines' Board final decision on its groundwater permit application.

7.1 Comments Received by Brazos Valley GCD

Comments received by the Brazos Valley GCD and responses to these comments are provided in Appendix U. Only written comments made directly to the Brazos Valley GCD on proposed DFCs with application to at least the Brazos Valley GCD are included.

7.2 Comments Received by Fayette County GCD

Comments received by the Fayette County GCD and responses to these comments are provided in Appendix V. Only comments made directly to the Fayette County GCD on proposed DFCs for Fayette County are included.

7.3 Comments Received by Lost Pines GCD

Comments received by the Lost Pines GCD and responses to these comments are provided in Appendix W. Comments made directly to the Lost Pines GCD on proposed DFCs for Bastrop and Lee Counties, as well as comments made to GMA 12 by Lost Pines GCD stakeholders, are included.

7.4 Comments Received by Mid-East Texas GCD

No comments were received by the Mid-East Texas GCD related to the proposed DFCs for that district.

7.5 Comments Received by Post Oak Savannah GCD

Comments received by the Post Oak Savannah GCD and responses to these comments are provided in Appendix X. Only comments made directly to the Post Oak Savannah GCD on proposed DFCs for Burleson and Milam Counties are included.

7.6 Comments Received from Texas Water Development Board

No comments were received from the Texas Water Development Board.

8. Summary

The initial DFCs were approved by GMA 12 on November 12, 2021 and with minor revision the finals DFCs were approved ~~adopted DFCs were approved~~ by GMA 12 on November 30, 2021.

Table 1-3 (cont.)

Meeting Date	Quorum Present	Major Discussion Topics
March 18, 2021	Yes	VIRTUAL MEETING- Presentation and discussion on GAM run results, including results of S-12 and S-13; Consider proposed DFCs for all aquifers in GMA 12; Approve DFCs for Brazos River Alluvium and Yegua-Jackson Aquifers; Discussion of expressions of DFCs and variances; Declaration of Wilcox aquifers in FCGCD as non-relevant
April 20, 2021	Yes	VIRTUAL MEETING- Presentation and discussion on GW-SW interaction with respect to Run S-13; Presentation by Environmental Stewardship discussing current and proposed DFCs and DFCs to protect groundwater discharges to streams; Discuss and reconsider proposed DFCs for all aquifers in GMA 12; Discuss past and future pumping scenarios for the Carrizo-Wilcox
June 24, 2021	Yes	Presentation and discussion on POSGCD concerns on DFC planning; Discussion of requirements of Chapter 36 for adopting DFCs
October 6, 2021	Yes	Presentation and discussion on a proposed GAM update by POSGCD; Presentation on POSGCD permitting and rules; Presentation on POSGCD approach for developing DFCs
October 13, 2021	Yes	Presentation and discussion on results of GAM Run S-15; Discussion on DFCs for all aquifers in GMA 12
November 12, 2021	Yes	Presentation and discussion on results of GAM Runs S-19 and S-20; Preliminary adoption of DFCs for Sparta, Queen City, Carrizo, Calvert Bluff, Simsboro, and Hooper Aquifers using results of Run S-19
November 30, 2021	Yes	Final adoption of GMA 12 DFCs (with drawdowns from GAM Run S 19
~~November 30, 2021~~	~~Yes~~	~~Final adoption of GMA 12 DFCs (with drawdowns from GAM Run S-19)~~
January 21, 2022	Yes	Review of draft of Explanatory Report
January 28, 2022	Yes	Approval of Explanatory Report

Add two more meetings to the table.

Table 2-2. Adopted DFCs for the Yegua-Jackson Aquifer

GCD	Average Aquifer Drawdown (feet) measured from January 201 through December 2069
Brazos Valley GCD	67
Fayette County GCD	81
Lost Pines GCD	—
Mid-East Texas GCD	8
Post Oak Savannah GCD	61
GMA-12	***55***

Table 2-3. Adopted DFCs for the Brazos River Alluvium Aquifer

GCD	County	Brazos River Alluvium Aquifer
Brazos Valley	Brazos and Robertson	North of State Highway 21: Percent saturation shall average at least 30% of total well depth from January 2013 to December 2069. South of State Highway 21: Percent saturation shall average at least 40% of total well depth from January 2013 to December 2069.
Post Oak Savannah	Burleson	A decrease in 6 feet in the average saturated thickness over the period from January 2010 to December 2069.
	Milam	A decrease of 5 feet in average saturated thickness over the period from January 2010 to December 2069.

2.4 Non-Relevant Areas of Aquifers

There are four areas where aquifers were declared non-relevant during the current cycle of joint groundwater planning. The Trinity Aquifer was declared non-relevant in Bastrop, Lee, and Williamson counties because of its small areal coverage, great depth, poor water quality, and lack of use. The Yegua-Jackson Aquifer was declared non-relevant in Lost Pines GCD because it has a minimal amount of exempt pumpage within the district. The Wilcox portion of the Carrizo-Wilcox Aquifer was declared non-relevant in Fayette County GCD because of the poor water quality, the great depth to these units, and the lack of use. The Gulf Coast aquifer was declared non-relevant in Brazos Valley GCD because it is thin, can only provide water in small quantities, and is very limited in areal extent.