Comments to
Brazos Valley GCD Board
Regarding Proposed DFCs
July 8, 2021

Steve Box, Executive Director
Environmental Stewardship

Last month I addressed the technical reasons why -- based on predicted damage to surface waters -- we are requesting that the Proposed DFCs be rejected and sent back for revision.

But let's face it, management policies and practices are in a state of flux in Groundwater Management Area 12.

Joint planning among districts is supposed to help all of the districts manage the development of the aquifers in a way that balances pumping against the conservation and protection of aquifers, while retaining their ability to curtail (slow down pumping) when damage is imminent

However, the standards for developing desired future conditions in GMA-12 are changing, yet there is no agreement between the District Representatives on these changes. As a result, the representatives from four of the districts have imposed their will on the fifth district rather than reaching a workable and agreeable resolution that works for all of the districts.

As the representatives took up a discussion of the controversial GAM Run S-12 --- whether to use it as the base run for the proposed DFCs --- much of the controversy over the appropriate pumping file to be used seemed to be sparked by a threatening letter from Paul Terrill, lawyer for Blue Water Vista Ridge, to Gary Westbrook regarding what Blue Water wanted as Desired Future Conditions.

After discussion they voted to use the S-12 model that was favored by 4 of the 5 District Representative. Post Oak GCD, the District that received the threatening letter, voted against the S-12 pumping file.

In his plea to maintain Post Oak's manage policy, Mr. Westbrook, told the other District Representatives, and I quote **"This is management we have had in place for over a decade that we believe tracks our mission statement considering conservation is important while recognizing that property rights are important."**

"We respectfully request that you allow us to manage the Carrizo as we have always desired. Once we set the precedent, and I believe [adopting DFCs based on the S-12 run] would be a precedent, it will be hard to undo. If our DFC is raised so much higher [as is being demanded of Post Oak], then really, we won't be able to do any management. You can't curtail until you approach those desired future conditions because these [new S-12] DFCs would have to be allowed.

In the vote that followed, the four districts that were concerned about being drawn into a lawsuit if Blue Water sued Post Oak, forced their will on Post Oak Savannah GCD**. In doing so, they *essentially eliminated* Post Oak's ability to curtail the Vista Ridge project even though, after only about six months of pumping, dozens of landowner's domestic wells in Burleson and Lee Counties are being damaged, costing thousands of dollars to repair.**

Worse, the damage to the aquifers in these counties will continue for many decades unless the Proposed DFCs are rejected and revised.

Our over-arching concern is the unresolved management policies that have rapidly evolved within the jurisdiction of the five groundwater conservation districts, over the last 9 months. These policies, imbedded in the Proposed DFCs, will have serious immediate and future consequences on management policies within the joint-planning process. Most urgently, the impact of changes in management policies that have a direct negative impact on the ability of Districts to manage curtailment of pumping when the DFCs are exceeded need to be resolved and agreed policies adopted *before* future DFCs are adopted. As such it is imperative that the Proposed S-12 DFCs are rejected and sent back to the GMA for revisions.

We respectfully request that this Board reject the proposed desired future conditions and remand them back to the GMA-12 representatives for revision.

From: Miriam Vaughn
To: clopez@brasosvalleygcd.org
Cc: Alan Day
Subject: Proposed DFCs
Date: Tuesday, May 25, 2021 10:57:05 AM

Dear Brazos Valley Groundwater Conservation District Board President,

Thank you for volunteering for this critical position as stewards of our ground water and river ecosystem health. It is so important to the health of the environment and economic viability of our communities. I appreciate you are in a very stressful position with threats of litigation, and companies wanting to market the valuable water resources. Your challenges continue but this is your opportunity.

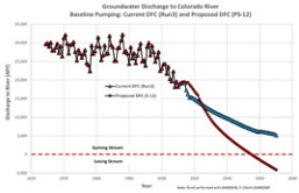
You must choose between what is good enough to get by and what is right to do. The proposed DFCs will ultimately deplete ground water and flowing streams. Please reject the proposed re-adopt the current DFC's until such time dependable sustainable solutions for aquifer management are agreed upon.

Please find the courage to adopt DFC's that will protect, long term, the environment and current landowners' water access and install monitoring wells to verify the effectiveness.

Sincerely,

mcv
Miriam Vaughn
200 Bishop St.
Smithville, TX 78957
512 237-1148

Proposed DFCs
Environmental Stewardship's Concerns and Requests



Presented to
Brazos Valley Groundwater Conservation District Board of Directors
June 10, 2021, Virtual

Environmental Stewardship
A Sustainable Ecosphere

Environmental-Stewardship.org

President Cast and board members,

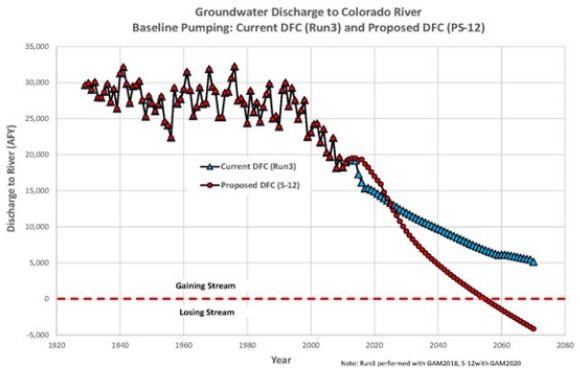
I want to thank you for allowing us the opportunity to share our concerns about the Proposed Desired Future Conditions with you today.

If it is agreeable with you, Environmental Stewardship will present its concerns first, answer your questions and then SAWDF will present its concerns and answer your question. We will be happy for board members to ask questions anytime during our presentation.

Our primary concerns relate to the predicted impacts of the new Proposed DFCs based on Run S-12 on surface waters as compared to the predicted impacts of the Currently Adopted DFCs on the Colorado River.

IMPACT OF PUMPING
ON OUTFLOWS TO MAIN STEM COLORADO RIVER

Adopted 2017 DFCs vs. Proposed DFCs:



Predicted reduction of discharge of groundwater into the mainstream Colorado River due to Current DFC Run 3 and Proposed DFCs S-12 (George Rice, New GAMs).

This graphic represents the impacts that are predicted by the new GAM. The graph shows the relationship between the pumping associated with each DFC and the impact on outflows to the Colorado River

Blue is the Currently Adopted 2017 DFCs as depicted by Run 3 using the NEW GAM.

Red is the Proposed DFCs based on Scenario S-12.

The Historical Calibration period is from 1930 to 1995

The Developmental Period is 1995-2070

Gaining Stream vs Losing Stream Redline

Comparing the two runs we see that the greater the amount of groundwater being pumped, the greater the reduction in discharge from the aquifers to the main stem of the Colorado River.

This trend toward reversing the groundwater-surface water relationship over the next 50 years is undisputed.

This is an example of how the model serves to demonstrate the difference between these two runs, in this case the two DFCs.

The key difference is that the Current DFCs **do not** cause the relationship between the river and the aquifer to reverse, whereas the S-12 Scenario **causes the river to change from a gaining to a losing stream** somewhere in the 2050-60 timeframe.

IMPACT OF PUMPING
ON OUTFLOWS TO MAIN STEM COLORADO RIVER

Discharge to Colorado River - AFY (1)				
Year	Pre-Development	Early Pumping	Current DFC	Proposed S-12
1930	29,600			
1995	27,500			
2011		18,700		
2070			5,150	-4,100
Change from 1930	-2,100	-8,800	-22,350	-31,600
	-7%	-37%	-83%	-114%

(1) Data From Rice Current vs Proposed DFC Graph

This table gives a quantitative view of the predictions from an historic perspective.

It is very clear that the early pumping -- from around 1995 to 2011 -- caused considerable impact on the river; about a **37% decline in discharge** to the Colorado River compared to 1930.

Following that early unregulated pumping time period is the Current DFC time period. This is the regulated joint-planning phase where desired future conditions are being established.

In the currently adopted DFCs column the predicted decrease in discharges to the Colorado River is whopping **83% less discharge** than the historical outflows.

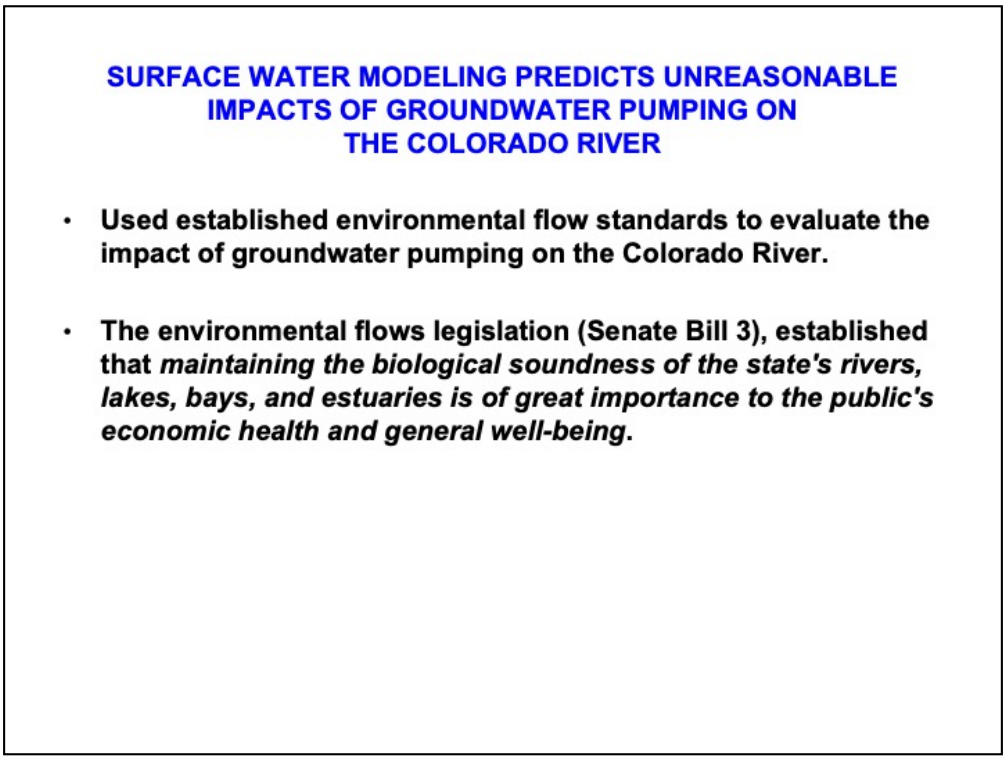
In the Proposed DFCs column, the predicted decrease in discharge is an additional 31% more that the Current DFCs. This results in a **devastating 114% less discharge than historic flows and reverses the relationship between the river and the aquifers**.

- Whereas the quantity of pumping in the 2017 adopted DFCs is predicted to cause a significant decrease in outflows to the river; *an impact that may be unreasonable in-and-of-itself,*

- The **Proposed DFCs are predicted to decrease outflow to the point that the Colorado River LOSES water to the aquifers.**
  - **This is an impact that Environmental Stewardship sees as a bright line between what is reasonable and what is *unreasonable***.

Hydrologically, this is a complete reversal in the flow of groundwater and surface water relationship. At this point the river starts contributing water to the aquifer on an *on-going basis*. **This sets up hydrological conditions for the RIVER could go dry during drought periods. But more certainly, it sets up condition where the river will lose its biological and ecological resilience that enables it to bounce back to being an ecologically sound environment after a serious drought**.

- **The Proposed DFCs based on Scenario Run S-12 cross the bright line and are unreasonable.** As such, it is our view that the only reasonable option is to REJECT the Proposed DFCs and REMAND the process back to the GMA Representatives to develop DFCs using the Currently Adopted DFCs as the basis for setting DFCs that are not predicted to cross this hydrologically and ecologically unreasonable line of impact.



Back in December, 2020 we provided the GMA Representatives with the results of an analysis of the impacts of Current and Proposed pumping on the Colorado River from the perspective a surface water scientist - Joe Trungale – using surface water modeling techniques.

He used the environmental flow standards as a means of evaluating the impact of reduce groundwater discharges to the Colorado River.

This evaluation also predicted unreasonable impact of groundwater pumping on the Colorado River.

Senate Bill 3, the basis for the environmental flow standards, established that maintaining the biological soundness of the state's surface waters is of great importance to the economic health and general well-being of Texans.

Here is what Joe had to say about his findings.

Click Here for Video

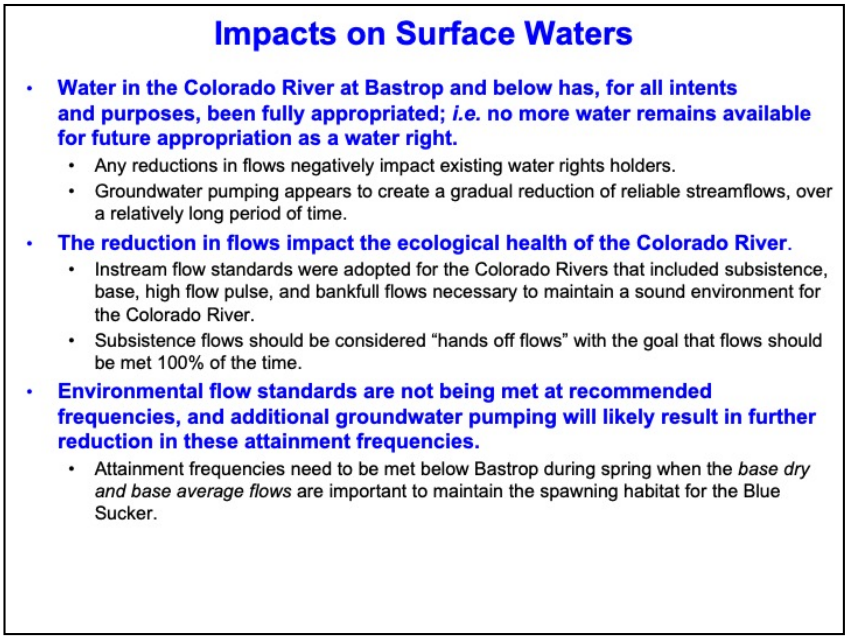
Joe Trungale

Ecological impacts of reduced surface water flows due to groundwater pumping

Joe Trungale
Trungale Engineering
Presentation to GMA-12
April 20, 2021

Click Here for Video

4:41 minutes



Since the audio link will not likely be loud enough for you to hear his comments I will summarize them quickly for you.

First: The Colorado River at Bastrop and below is fully appropriated to surface water right holders. As such, any decrease in flow due to reduced groundwater discharge will negatively impact these permit holders.

Second: such reductions in flow also impact the ecological health of the river and its ability to recover from drought conditions. As you might recall, the lower Colorado basin was intensively studied during the LCRA/SAWS project by many different scientists and engineers. These were major studies making this basin one of the most studied basins in the State. Based on these studies instream flow standards were set at several gages on the river – including Bastrop. The intent is that these standards be maintained at recommended frequencies year-round.

Finally: These standards are not being met at recommended frequencies, and any reduction in flow due to groundwater pumping will likely result in future reductions in these frequencies, damaging the ecology of the river.

Such damage to the ecology of the river is a trend in the wrong direction, and we consider this to be an unreasonable impact.

Impacts on Surface Waters

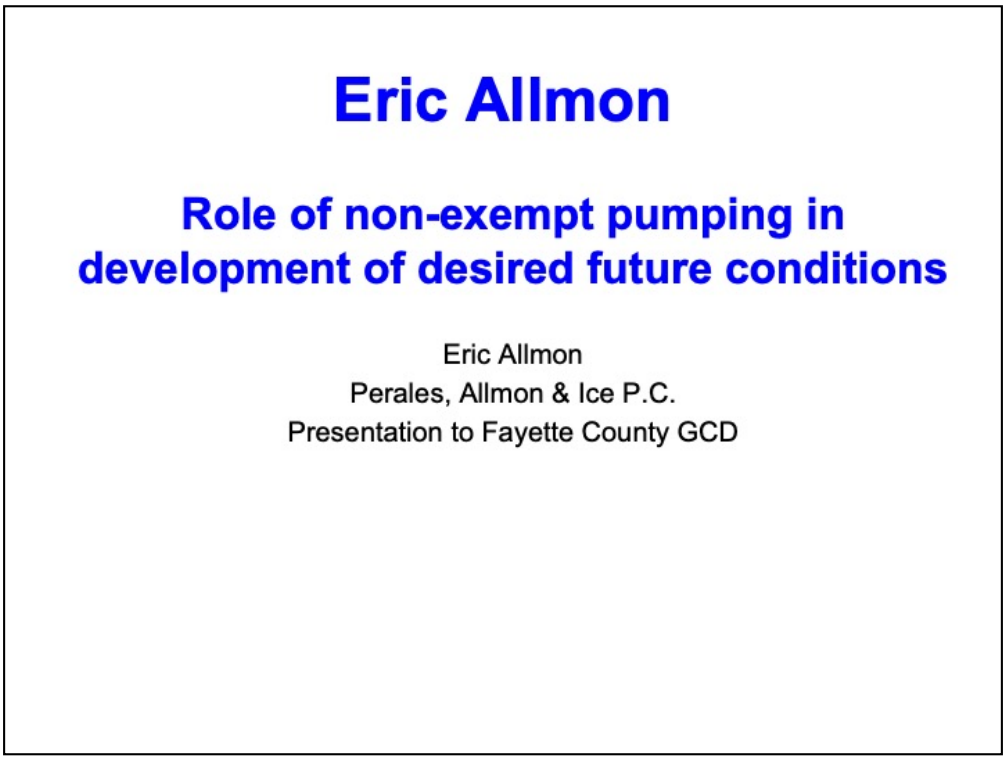
In Summary:

- The effect of the Proposed S-12 DFCs on the Colorado River is *unreasonable* because:
  - It causes the relationship between the river and the aquifers to reverse, and
  - it increases the shortfalls in meeting environmental flow targets.
- Since the flows in the river are already often below levels needed to maintain the ecological health of the river, any additional pumping that causes further reduction in stream flows is *unreasonable*.

In summary, we have demonstrated that the best science available – both from a groundwater availability perspective and a surface water availability perspective WILL LIKELY RESULT IN UNREASONABLE IMPACTS to the Colorado River.

Certainly, the Proposed S-12 DFCs cross the line into unreasonable territory and **SHOULD BE REJECTED**.

If not outright rejected, the potential of unreasonable harm **MUST BE RECOGNIZED AND DEALT WITH.**

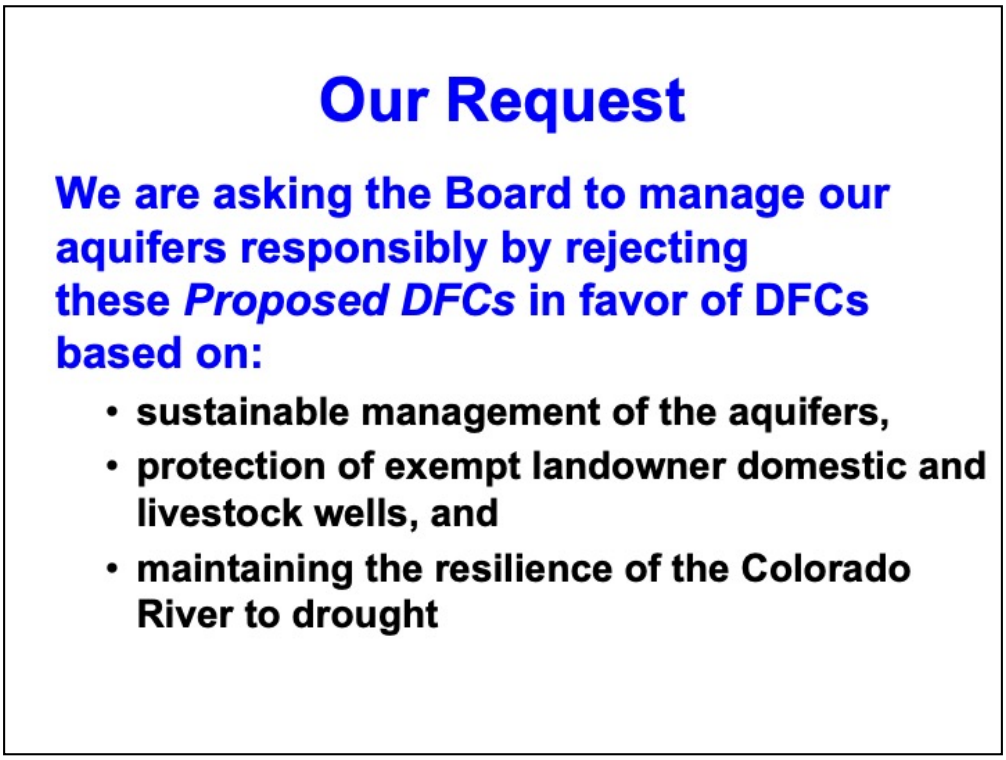


Eric Allmon, Environmental Stewardship's attorney, provided the Board with a letter that addresses the role of non-exempt pumping in development of desired future conditions.

The main point of the letter is to address the issue of the threats of litigation that seem to be driving the position by some that the DFCs must include 100% of all permitted pumping in order to avoid litigation.

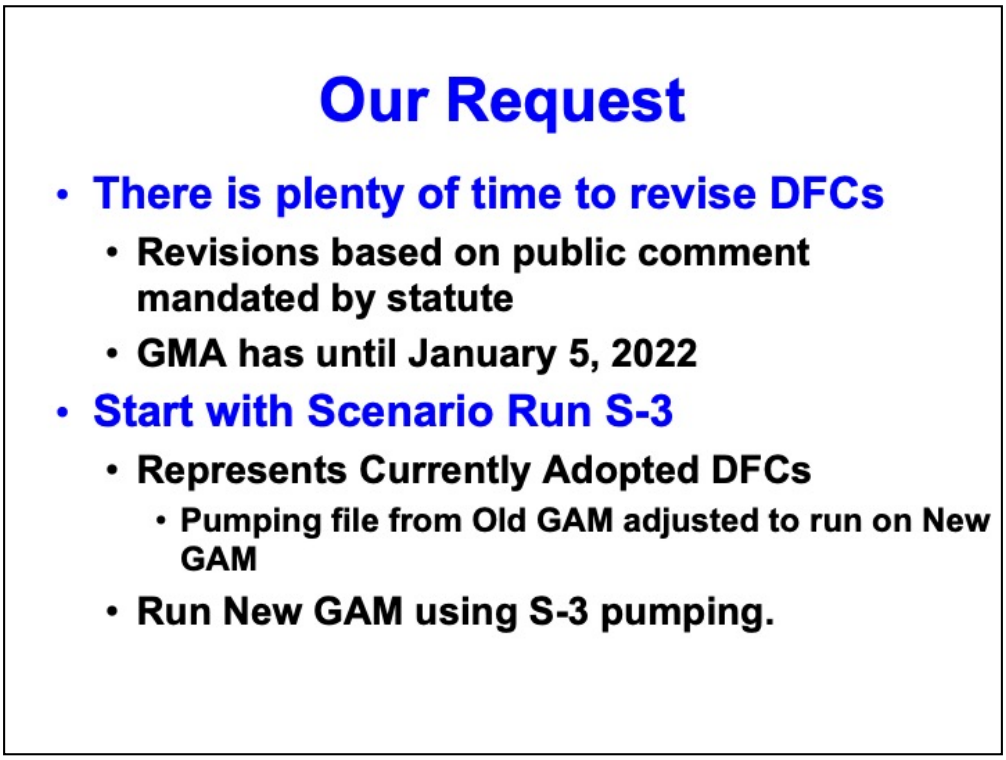
Mr. Allmon lays out the legal framework and court findings that support the position that the DFCs must BALANCE conservation and protection of the aquifers and the 9 factors required to be considered against development in order to sustain the DFCs against litigation by water marketers and others.

We encourage you to read Mr. Allmon's letter and take it to heart as you deliberate on the adoption of DFCs.



So our request is that you, the Board, direct that our aquifers be responsibly managed by rejecting these proposed DFCs in favor of DFCs based on three criteria:

1. Sustainable management of the aquifers,
2. Protection of exempt landowner domestic and livestock wells – which SAWDF will discuss, and
3. Maintaining the resilience of the Colorado River to drought conditions.

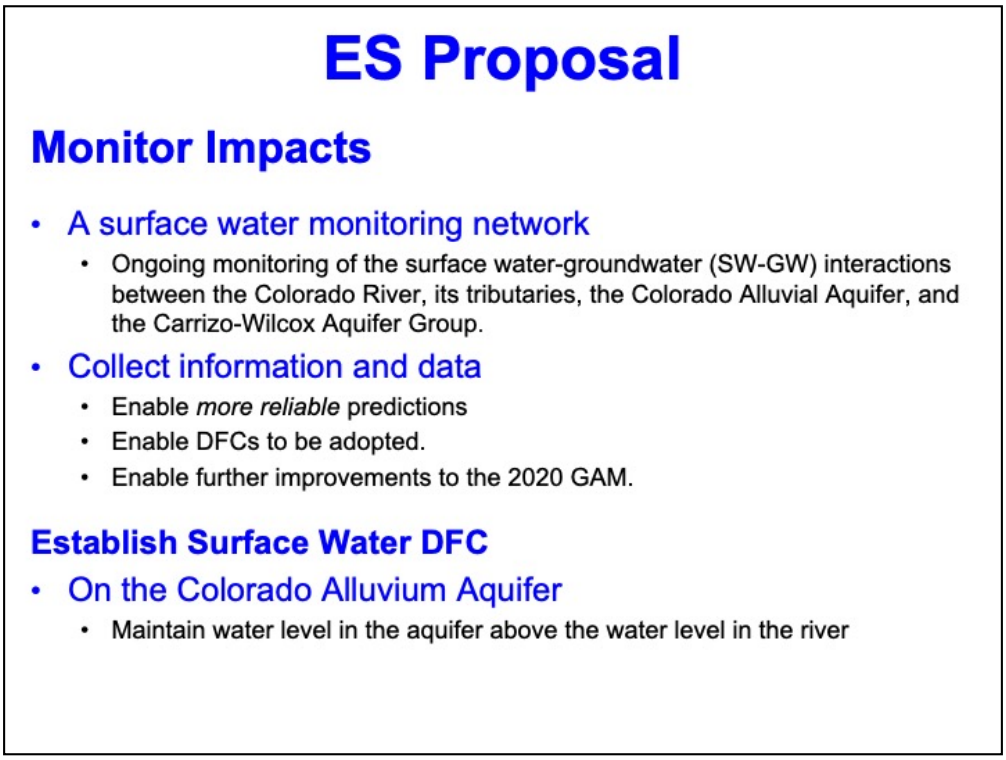


It is important that you recognize that there is plenty of time to revise the DFCs.

In fact, the statutes mandate revisions based on public comments.

The GMA has until January 5, 2022, to make and submit revisions.

We are requesting that the revisions be based on Scenario Run S-3 which represents the currently adopted DFCs. In this scenario, the pumping file from the OLD GAM was modified slightly to be able to be run on the NEW GAM.



To deal with these predicted impacts on surface waters we have propose that the GMA Districts:

- monitor the impacts of groundwater pumping on the Colorado River and its tributaries,
- Gather the information and data needed to enable more reliable predictions
- Establish surface water DFCs on the Colorado River Alluvium Aquifer, and
- Maintain the water level in the alluvium above the water level in the river.

These are areas where we could also use your help and cooperation to get the monitoring needed and set DFCs for the Colorado River Alluvium.

Environmental-Stewardship.org
512-300-6609
info@envstewardship.org

PERALES, ALLMON & ICE, P.C.
ATTORNEYS AT LAW
1206 San Antonio Street
Austin, Texas 78701
(512) 469-6000 • (512) 482-9346 (facsimile)
info@txenvirolaw.com

Of Counsel:
David Frederick
Richard Lowerre
Brad Rockwell

June 3, 2021

Sidney Youngblood, President
Post Oak Savannah Groundwater Conservation District Board of Directors

Via e-mail: admin@posgcd.org

RE: Role of non-exempt pumping in development of desired future conditions.

Dear Mr. President and Board Members:

In the development of the currently-proposed desired future conditions ("DFC"), claims have been made by water marketers such as Blue Water Vista Ridge LLC and others that the DFC *must* be set at a level that enables pumping of the maximum amounts identified within all issued non-exempt permits with no allowance for the governing districts to employ an adaptive management strategy in the future and no effective balancing of other statutorily-mandated factors. Environmental Stewardship offers these comments to aid Post Oak Savannah Groundwater Conservation District (the "District") in a more balanced consideration of the DFCs. Accepting water marketers' approach, embodied in the currently-proposed DFCs, would not merely be unwise – it would be unlawful.[1]

The District must give consideration to all relevant statutory factors in developing a DFC.

The Texas Water Code sets forth a number of factors which a district is required to consider when adopting a desired future condition, including:

- Aquifer uses or conditions within the management area;
- The water supply needs and water management strategies included in the state water plan;
- Hydrologic conditions for each aquifer in the management area, including recharge, inflows, discharge and total recoverable storage;

[1] By this submission, Environmental Stewardship does not waive its right to submit further comments as the process moves forward.

- Other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water;
- The impact on subsidence;
- Socioeconomic impacts reasonably expected to occur;
- The impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater.
- The feasibility of achieving the desired future condition; and,
- Any other information relevant to the specified desired future conditions.[2]

Ultimately, in adopting a DFC, the districts are statutorily charged with, "provid[ing] a *balance* between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence in the management area."[3]

This statutory structure establishes a complex process by which a wide range of occasionally conflicting factors are weighed by the Districts prior to the adoption of a DFC. Achieving *balance* is the key goal of the DFC process. It would be impossible to simultaneously and completely protect every consideration identified by the Legislature. Just as the district must "consider" impacts on private property, the district is equally charged with considering spring flow and aquifer discharge. These are competing interests, and the furtherance of one will often come at the expense of the other. Balancing these interests is a value judgment, purposefully delegated to districts primarily responsible to their local electorates.

The Texas Supreme Court has noted that by employing groundwater districts as the primary means of groundwater regulation, "the Legislature has chosen a process that permits the people most affected by groundwater regulation in particular areas to participate in *democratic* solutions to their groundwater issues."[4] A *democratic* groundwater management strategy requires weighing *all* of the factors set forth in statute.

Some water marketers would have the District delegate the decision on a DFC to a modeling program based upon a mere "reverse engineering" of the drawdown resulting from permitted wells. Disregarding the statutory structure in this manner would be unlawful, as it would

[2] Tex. Water Code § 36.108(d).
[3] Tex. Water Code § 36.108(d)(2) (emphasis added).
[4] *Sipriano v. Great Spring Waters of America*, 1 S.W.3d 75, 80 (Tex. 1999)(emphasis added).

effectively preclude consideration of factors that the districts are required to incorporate in their DFC decisions.

In fact, maximizing drawdown in order to accommodate all non-exempt permitted pumping would render the District's DFC decision arbitrary. An agency acts in an arbitrary manner if it fails to consider a factor the legislature directs it to consider, considers an irrelevant factor, or weighs only relevant factors and reaches a completely unreasonable result.[5] If non-exempt pumping controls the DFC to the disregard of other considerations, such as environmental impacts and the interaction of surface water and groundwater, then the districts will have failed to adequately consider factors that the Legislature has directed the districts to consider.

Surface water impacts require more limited DFCs than the DFCs proposed.

Other comments discuss the technical details of surface water interaction modeling, but the trend towards reversal of groundwater recharge into the Colorado River within the next 50 years is undisputed. Claiming that nothing should be done to address this due to a lack of certainty is akin to arguing that Texas should not prepare for an anticipated direct hit from a hurricane because it is difficult to determine whether it would be Category 4 or Category 5 in intensity. The fact that a groundwater impact is difficult to evaluate does not justify ignoring it, as the Texas Supreme Court noted in the *Day* decision.[6]

As noted above, the districts are statutorily required to consider environmental impacts in setting a DFC, including interactions between surface water and groundwater. Conservation of surface water is further consistent with the Texas Constitution's Conservation Amendment pursuant to which groundwater districts exist. A balanced DFC that does not fully incorporate all permitted non-exempt pumping is well-justified by the statutory goal of conserving surface water by mitigating the impact of a DFC upon groundwater interactions with surface water.

Consideration of *all* property rights justifies more limited DFCs than those proposed.

All landowners possess property rights in the groundwater beneath their property subject to groundwater district regulation, and *all* landowners possess an equal right to produce their fair share of that water. This was confirmed in 2020 by the Federal Fifth Circuit Court of Appeals in the case of *Stratta v. Roe,* wherein the Court held that an adjacent landowner to a permitted non-exempt well could pursue a federal takings action against the Brazos Valley Groundwater

[5] *City of El Paso v. Public Utility Commission of Texas,* 883 S.W.2d 179, 184 (Tex. 1994).
[6] *Edwards Aquifer Authority v. Day*, 369 S. W. 3d 814 (Tex. 2012) ("*Day*"), at 832.

Conservation District based upon the drainage of groundwater from beneath the adjacent property owner's land by the permitted pumping.[7] The validity of that action depended in no way whatsoever upon whether the adjacent landowner possessed a water well, or a pumping permit. Rather, the Court held that the Texas Water Code has created a regulatory structure "which affords landowners their fair share of the groundwater beneath their property."[8] This governs both the extent and the limit of the District's obligation to consider private property rights. Setting a DFC at a level that accommodates the maximum amount permitted to non-exempt permittees creates an increased risk that groundwater levels will be lowered below the level at which pumps owned by exempt well landowners can efficiently operate, makes it more difficult for persons without current wells to access their groundwater, and potentially results in greater drainage of groundwater from beneath the property of landowners who would elect to exercise their right to keep their groundwater in the ground rather than produce it.[9] That is not a *balanced* approach to the consideration and protection of private property rights within the District. As GMA-8 previously noted in adopting its prior DFC:

> GCDs must consider all private property rights when considering management plans, rules, and permit decisions. GCDs must balance the interests of historic groundwater users, landowners who desire to preserve the aquifer levels beneath their property, and property owners who may be damaged by either groundwater-level declines, reduction of water in storage, and reduced spring flow.

Achieving *balance* is the most important goal in setting a DFC.

A balanced DFC would survive a takings or statutory challenge.

The District's decision to require a balanced DFC that was not reverse-engineered to include all permitted non-exempt pumping would be defensible against a constitutional takings claim, statutory takings claim, or a suit for judicial review.

A challenge to a DFC as a constitutional taking would not be proper at this time. In order for a constitutional takings claim regarding the DFC to be proper, an *injury* as a result of the DFC decision would need to be "imminent, direct, and immediate, and not merely remote, conjectural, or hypothetical."[10] Mere adoption of the DFC will not reduce the value of the water marketers'

[7] *Stratta v. Roe,* 961 F.3d 340, 357 (5th Cir. 2020) ("*Stratta*"), at 364.
[8] *Stratta,* quoting approvingly *Day* at 830.
[9] *See Brown v. Humble Oil and Refining,* 83 S.W.2d 935, 940 (Tex. 1935).
[10] *City of Houston v. Mack*, 312 S.W.3d 855, 862 (Tex. App. – Houston [1st Dist.], 2009).

property in any significant manner (if at all), nor will it deprive them of the use and enjoyment of their property. While the districts will have the authority to curtail pumping in the future in *consideration* of the DFCs, that potential already exists, and the process for such curtailment is discretionary, non-mandatory, and dependent upon a complicated process that includes the consideration of numerous factors.[11] Accordingly, the adoption of a DFC does not give rise to a valid takings claim.

Furthermore, the action in setting the DFCs is well-justified even if proper at this time (which it is not) and if *some impact* on property rights would occur (which has not been shown). The adoption of balanced DFCs furthers the statutory purposes of groundwater conservation districts to ensure the conservation and protection of groundwater. As the Texas Supreme Court has held, government serves multiple functions, and "[t]o satisfy its responsibilities, government often imposes restrictions on the use of private property, " since, " [a]lthough these restrictions sometimes result in inconvenience to owners, government is not generally required to compensate an owner for associated loss."[12] A regulatory taking, as water marketers claim would exist as the result of a more limited DFC, would need to be, "a condition of use so onerous that its effect is tantamount to a direct appropriation [of property] or ouster [from property]."[13] The permitting decision involved in the *Day* case met this high threshold, as it directly and imminently placed a severe constraint upon the landowner's use of groundwater. The adoption of balanced DFCs does not in any way result in a direct appropriate of property nor an ouster from property. Accordingly, the adoption of balanced DFCs that do not allow for all non-exempt permitted pumping would not constitute a "taking."

Likewise, the setting of balanced DFCs would survive a challenge alleging that the action is a statutory takings under the Texas Private Real Property Rights Act found at Texas Government Code Chapter 2007. Beyond a Constitutional taking (addressed above) that Act only applies to a government action that: (1) affects an owner's private real property that is the subject of the governmental action in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; *and* (2) results in a reduction of at least 25% in the market value of the affected private property.[14] The adoption of a DFC does neither of

[11] *See, e.g.,* POSGCD Rules Section 16.
[12] *City of Houston v. Carlson*, 451 S.W.3d 828, 831 (Tex. 2014).
[13] *Id.*
[14] Tex. Gov't Code § 2007.002(5).

these things. Thus, a suit regarding the adoption of a balanced DFC under the Private Real Property Rights Preservation Act also would not be proper.

Furthermore, a balanced DFC would be defensible against a statutory suit for judicial review. Such an appeal would be evaluated under the "substantial evidence" standard of review set forth in Texas Government Code § 2001.174.[15] Under this standard of review, a reviewing court gives significant deference to the agency for decisions within the agency's field of expertise, and an agency's interpretation of the statute it administers is entitled to serious consideration so long as it is reasonable and does not conflict with the statute's language.[16] In this case, a balancing of the various considerations set forth in statute, including meaningful consideration of surface water impacts and all property rights impacts, would further the purposes of the statutory scheme at issue, and be fully consistent with the governing statutes. Accordingly, such a decision would be defensible against a statutory challenge. On the other hand, a decision to prioritize non-exempt pumping to the disregard of other factors *would* be problematic.

Conclusion.

For these reasons, Environmental Stewardship asks that the districts reject the DFCs currently proposed for adoption by GMA-12, and, instead, move forward with a process to develop DFCs that incorporate a balanced consideration of *all* factors that the districts are statutorily required to consider, including environmental impacts and interactions between surface water and ground water.

Respectfully submitted,

Eric Allmon
State Bar No. 24031819
PERALES, ALLMON & ICE, P.C.
1206 San Antonio Street
Austin, Texas 78701
512-469-6000 (t)
512-482-9346 (f)

[15] Tex. Water Code § 36.10835.
[16] *Office of Public Utility Counsel v. Texas-New Mexico Power Co.*, 344 S.W.3d 446, 450 (Tex. App. – Austin, 2011).

COUNSEL FOR
ENVIRONMENTAL
STEWARDSHIP

cc: Gary Westbrook, General Manager

cc: Lost Pines Groundwater Conservation District
Mike Talbot, President
James Totten, General Manager

cc: Brazos Valley Groundwater Conservation District
Stephen Cast, President
Alan Day, General Manager

cc: Mid-East Texas Groundwater Conservation District
George Holleman, Vice President
David Bailey, General Manager

cc: Fayette County Groundwater Conservation District
Leo Wick Sr., President
David Van Dresar, General Manager

Alan Day

From: Nelda Calhoun <nelcalhoun@gmail.com>
Sent: Wednesday, June 16, 2021 9:58 AM
To: Alan Day
Subject: Meeting June 8 2021

Follow Up Flag: Follow up
Flag Status: Flagged

To honorable board members and manager Allen Day, I would be writing a formal letter but due to technical difficulties this will have to do. My husband and I listen to your public meeting by zoom together and was questioning why was the counties of Burleson and Miliam so interested in our future ground water speculation? Have not those counties surrendered to the selling of water rights ? Like Blue water ships the water to San Antonio? For years massive pumping has left them dry and they envy us because we are sitting on the deepest water aquifer. Do not let the Post oak savanna water district bully us. Let's be the grand water stewards of the state. We have to be for our children's future.

Hello, Board Members. I'm Linda Curtis, and I'm from Bastrop. I am not a water expert by any members. Okay. Like I said, I'm not an expert on water. Okay. But I do have a lot of respect for you and the time that you have taken to do the work to understand some very complicated issues. I attend regularly our groundwater district down at the Lost Pines for years, so I understand how complicated and arduous the task is, especially you as volunteers. 'm also a volunteer for a nonprofit organization, a voter association for nonaligned voters called the League of Independent Voters of Texas, and I volunteer with two nonprofits mentioned on the little flyer that you have, Simsboro Aquifer Water Defense Fund and Environmental Stewardship, whose joint work is parked at waterdefenders.org. And I'm here simply to share with you a perspective about growth because I think Texas development policies, or should I say politics, of growth are really driving a raging debate now on water as I guess it should be. I was surprised to find out today that Bastrop and Brazos Counties are the 23rd and 24th highest growth counties in Texas. Maybe you guys are aware of that. I sure am about Bastrop. People are flooding into Bastrop, and it's -- it's kind of scaring a lot of people, and we're trying to figure out how to manage the problems that are presenting themselves. Now, I believe growth in Texas is – is driving us to what LIV calls the California water model, which is mass movement of groundwater to build in areas without adequate local supply. I am aware that you do not export groundwater.

This is, you know, a big issue in the Lost Pines and Post Oak Savannah Groundwater Districts that could distort the GMA 12 adoption of DFCs, which is why I'm here from Bastrop intervening in your local meeting. You already know that California is now trying to reverse -- I assume you know they are trying to reverse -- the mistaken policies adopted well over 50 years ago as Californians are now flooding into Central Texas. It's in the news, everybody is talking about California right now. So LIV has years of concerted work with experts that we have under our belt in developing an understanding about how growth can pay for itself or it can eat your lunch. It's parked at our cost-of-growth page, and I'd love to talk to you in another venue that might be more appropriate, but I do want to share one of the basic principles in Biology 101 that's part of our understanding about growth, that once a basic nutrient for survival of organism is depleted, the organism dies. Now, I'm not trying to be an alarmist here, but like I said, I understand this is complicated, and I do not envy your position. The decisions you make on the DFCs are about what happens to our water future 50 years down the road, and I hope you will sincerely and seriously consider rejecting the current proposal. You can find me and our efforts at livtexas.org, and I very much appreciate your time. Thank you.

Hi. My name is Andy Wier, and I'm from Bastrop County. I have a well in the Simsboro there,and I'm a member of the Board for the Simsboro Aquifer Water Defense Fund, and I'm speaking on their behalf. The Simsboro Aquifer Water Defense Fund,SAWDF we call it, works with the landowners in Milam,Burleson, Lee, and Bastrop Counties, and we're interested in protecting the aquifer first and then groundwater rights for landowners. So from that perspective, I'm appealing to you that when you come time to make a decision about the proposed desired future conditions that you-all send those back for more work, that you reject those. They are not ready for prime time, the reason being that there wasn't the due diligence necessary that's in the Water Code for the nine considerations, especially socioeconomic factors and groundwater rights of landowners in there. What's happening is there were calculations made using the computer model, the GAM, and basically taking all the permits that are on the books, put them into the formula, run the GAM and that was the number. They said, "Well, this is how much the water is going to go down everywhere across the whole GMA 12, and those are the proposed numbers that y'all have to look at." No one said, "Well, should we take less water for the health of the aquifer"? No one said, "Should we take less water because these drawdowns are going to have impacts on landowners on -- with domestic and livestock wells"? And so the DFCs that you have in front of you are totally justifying or accommodating permitted pumping, and there's nothing on the balance scale. Now, I'll remind you that the Water Code says that the DFC has to be a balance between the highest permitted -- or highest production possible and conservation and use -- current uses of the water and surface waters. So GMA 12 -- I don't know if it was passed on to you -- received information that it's going

to take waters out of the rivers and the streams. And from SAWDF, we presented the number of wells. I gave a specific example in Lee County where 82 -- 80 percent of the wells will have to be mitigated,and seven would have -- 7 percent would have to be redrilled if these DFCs were accepted. So I wanted to look at Brazos. Y'all are very different, Brazos Valley Groundwater Conservation District, and you're going to have a report today which is some great information because it's looking at this proposed amount of pumping that's in this pumping file. S-12 is what's used to design these desired future conditions, and you have some graphs in here about the Sparta, the Simsboro and the Carrizo. And there's an interesting way of looking at it. It's about how much water is going to be left above a proposed well screen in various wells. I don't know exactly how that's designed, but that's -- that's a great way of saying "Will there be water so that people's pumps won't run dry if their pump is that low?" So that's the other consideration. I've looked at the aquifers in a different way, and I'll give you an example at the Simsboro. So the Simsboro in 2020 using -- these are the PS-12 GAM numbers. And if you model using the grid, the MODFLOW grid, if you model the head, the hydraulic head that's coming out from the GAM, the areas that are in red,orange or yellow are at the top of the aquifer formation or lower. So these are areas that are already - the water level or the predicted water level is below the top of the aquifer formation. When you go to 2040, that -- those numbers increase by three miles. Each of these squares is a mile. And if I had my computer hooked up, I could show you an animation and it shows you that the head is going to be below the aquifer formation in the Simsboro. You see the same thing in the Carrizo. It's not as pronounced in the Sparta, and you see this happening. So you're going to extend for the next three miles where you're going to drop water levels.

Now, here is all of your wells in that area, and I can show -- I didn't have time to reference the domestic and livestock wells that are in that vicinity, but those are wells that if you lose 50 feet of water in your domestic well you've got to move your pump. And if you can't put your pump any farther below your screen, then you're not going to have any water At all. And I know Mr. Day and I have had conversation about -- so if somebody drilled, you know,they got into the formation, they started to hit that sweet water and after a hundred feet -- because you're paying, you know, nowadays 30 bucks a foot to drill --after a hundred feet you stop drilling. Now, a commercial operation is going to go close to the bottom of the formation. So in this area, the formation here is about 300 to 500 feet thick as it -- as it starts that downdip, and so your domestic well owners are going to be in the top hundred. The water level is already at a hundred below the top of the formation, the head that's predicted in the model, so they are going to be the ones that suffer the impact. The commercial operations that have well screen closer to the bottom of the formation, they are not going to see the impact, and the pumps are designed different. So your permitted pumpers can continue to produce. It's your landowners, domestic and livestock well owners, that are going to see the loss in water, and that's the impact of these DFCs that wasn't discussed at any length.

And you can go to the January -- or to the June 24th meeting of GMA 12, the recording is on the Website. And if you listen to the recording starting at one hour and seven minutes into the recording, the general managers do sort of a round-table discussion and they talk about the deficiencies in the current proposed DFCs that you will have before you in the coming month. Listen to that discussion and take to heart that these DFCs are not ready for prime time.
Thank you very much.

I'm Sam Martin. To be honest with you, this is my first time getting involved with this water district. I've been involved with others in the past. The military took me to California, and water was a big issue in Colorado because they depend strictly on the snow pad. They haven't built many reservoirs to help with the population growth that they are going through, and so I do see on the horizon a concern with the growth here in our area. I guess I've got to get a little smarter on how things work with the -- the groundwater distribution systems and where the water is being pumped to. I guess my concern is what protections are in place for those that currently live here to make sure that those that are on a well and have no public water do not wind up with a dry well. And the issue that I see at hand is Metroplexes. As they grow, they are going to poke more holes in the ground to try to suck more water into their locations. I don't understand why San Antonio is tapping into ours rather than into the Gulf Aquifer,which is a lot larger and just about the same distance. So I guess I want to be here to learn a little bit more about the process, about what the plans are for the future, and I could not find anywhere what the increase on the flow is going to be from the 2017 plan. I don't know how much more they are going to be asking for. I guess another issue is: In the event like last year when we were in a moderate drought, what protections are there to stop the flow so we're not the ones that are suffering because we're pumping more water down to another location? With that I appreciate your time and your efforts and what you're doing. Thanks a lot.

My name is Kermit Heaton. I'm from Bastrop County, and I'm just a simple farmer. So one of the - one of the things I've done is tried to get some folks who are a little more eloquent about giving my position than what I might be able to. And the first question you might ask, why am I here? Well, the reason as best provided by a guy that's Pastor Martin Niemoller from the 1930s in Northern Europe, and his quote is: "In Germany, the Nazis came for the Communists, and I didn't speak up because I wasn't a Communist. Then they came for the Jews, and I didn't speak up because I wasn't a Jew. Then they came for the trade unionists, and I didn't speak up because I was a Protestant. Then they came for me, and by that time no one was left to speak for me." Well, I can't afford to have my well go dry like has already happened to some people in Lee and Milam Counties. One of the things is that when somebody takes something from me or from somebody else, to me that's tyranny. Okay? And a good definition from a guy named Charley Reese, who is now dead, (as read) Tyranny has come gradually, like a slowly rising river. Each of us does not realize the danger until the water comes in our door. Until then it is merely someone else's problem and a problem that we fool ourselves into thinking won't reach us. Well, they use rising water as an example of tyranny, but even a worse example of tyranny is if that water goes away. And talk to some people in Lee and Milam County who depend on those domestic and agricultural wells. You ladies and gentlemen have never had an easy job, and I commend you for your service, but I'm afraid your job is going to get a lot tougher than it

has been, and you have my prayers and support. And the last thing I want to talk about is water developers, and (as read) Of all tyrannies, a tyranny sincerely exercised for the good of its victims can be the most oppressive. It would be better to live under robber barons than under the omnipotent moral busybodies. The robber baron's cruelty may sometimes sleep, his cupidity may at some point be satiated; but those who torment us for our own good -- torment us for our own good will torment us without end if they do so with approval of their own conscious, and that's by a gentleman named C.S. Lewis. So I would ask you the next time somebody comes and says somebody has a real need for me to pump thousands of acre-feet of water a year out of the aquifer here, those people really need it in Travis and Bexar County or Tarrant County or wherever, I would ask that you do one thing: Don't believe them. Thank you.

Post Oak Savannah Groundwater Conservation District
Position Paper on GMA 12
Proposed DFCs for the 3rd Joint Planning Cycle

Submitted to the Brazos Valley Groundwater Conservation District, Mid-East Texas Groundwater Conservation District, Lost Pines Groundwater Conservation District, and Fayette County Groundwater Conservation District as part of the joint planning process for providing comments on Proposed Desired Future Conditions

July 14, 2021

1.0 Review of the GMA 12 Joint Planning Process

On September 2005, House Bill 1763 became law and mandated that the groundwater conservation districts (GCDs) in Groundwater Management Areas (GMA) develop desired future conditions (DFCs). The Texas Water Code (TWC) requires GMAs to develop DFCs every 5 years. Texas is currently in their 3rd joint planning cycle. The discussion below summarizes key issues associated with the three joint planning cycles.

1st Joint Planning Cycle: During the first joint planning cycle, POSGCD presented its initial set of proposed DFCs listed in below in Table 1 to GMA 12 on May 26, 2010. These proposed DFCs were developed without using a groundwater availability model (GAM). Rather, the proposed DFCs were determined using equations in an Excel spreadsheet. Input to the Excel spreadsheet included values of drawdown for the unconfined and confined portions of each aquifer that were deemed to be consistent with the goals and objectives of the POSGCD Management Plan by POSGCD DFC committee.

Table 1 Initial set of DFCs Proposed by POSGD to GMA 12

Aquifer	Average drawdown (ft) Across the District from 2000 to 2060
Sparta	30
Queen City	40
Carrizo	120
Calvert Bluff	150
Simsboro	300
Hooper	180

During the process of working with GMA 12 member GCDs to develop a set of District DFCs that were deemed to be compatible and physically possible, POSGCD adjusted the values of the DFCs for the Queen City, Carrizo, and Calvert Bluff aquifers to the values shown in Table 2.

2nd Joint Planning Cycle: During the second joint planning cycle, GMA 12 performed several bookend GAM simulations to investigate the sensitivity of drawdowns to different assumptions regarding how to include permitted production in a DFC model simulation. After the bookend simulations were completed, POSGCD proposed to change their current DFCs as little as necessary while still meeting the requirements for DFC in TWC §36.108 (d) and §36.108 (d-2).

Table 2 shows that the adopted DFCs for POSGCD are very similar for the 1st and 2nd joint planning cycles.

Table 2 GMA 12 Adopted DFCs for POSGCD during the 1st and 2nd Joint Planning Cycles

Aquifer	1st Planning Cycle		2nd Planning Cycle	
	Simulated Drawdown (ft) from Jan 2000 to Dec 2059	2059 Production in GAM simulation (acre-feet/year)	Simulated Drawdown (ft) from Jan 2000 to Dec 2069	2069 Production in GAM simulation (acre-feet/year)
Sparta	30	6,734	28	6,375
Queen City	30	502	30	504
Carrizo	65	7,059	67	7,058
Calvert Bluff	140	1,038	149	1,036
Simsboro	300	48,501	318	48,503
Hooper	180	4,422	205	4,422
Total		68,256		68,258

3rd Joint Planning Cycle: During the third joint planning cycle, GMA 12 performed several bookend GAM simulations in 2019. These bookend GAM simulations were similar to those performed in the 2nd Joint Planning Cycle. GMA 12 also adopted the use of an updated GAM for the Sparta, Queen City, Carrizo, Calvert Bluff, Simsboro and Hooper aquifers. The updated GAM produced notably different drawdown responses to future pumping for all of the aquifers as a result of changes in the hydraulic properties of the aquifers. A significant finding from using the updated GAM was that POSGCD could not achieve its current DFC for the Carrizo Aquifer in 2069 even if it stopped all pumping in the Carrizo from 2010 to 2069.

In the winter of 2020, POSGCD determined that an appropriate DFC for the Carrizo for POSGCD to implement its management strategies and achieve it management goals would be an average drawdown of about 145 feet in 2070. The analysis used to support the drawdown of 145 feet was based on multiple considerations, including:

- assumptions used to develop the proposed DFCs in Table 1
- the exceedance of a level 2 threshold in POSGCD Rule 16.4 in 2020 for the Carrizo Aquifer
- DFC requirements listed in the Texas Water Code (TWC)

On January 15, 2021, POSGCD requested that GMA 12 support a DFC of about 145 feet of drawdown in 2070 for the portion of the Carrizo Aquifer in POSGCD. A simulation with the updated GAM indicated that to achieve a DFC of 145 feet of drawdown, the maximum production from the Carrizo Aquifer in Milam and Burleson counties must be limited to approximately 12,000 acre-feet per year. On January 19, 2021, POSGCD Director Steven Wise sent a letter to the Board of the Directors of Brazos Valley GCD, Lost Pines GCD, Fayette County GCD, and Mid East Texas GCD to request their support in a lowering POSGCD maximum production rate in the Carrizo Aquifer from 18,205 AFY to 12,000 AFY. Among the points made by Director Wise supporting a lower production rate are:

- Since approximately August of this past year, we have been apprised of 28 wells – 26 of which are in the Carrizo – which needed their pumps lowered or the well redrilled. We have measured water levels in approximately 20 additional Carrizo wells located in the District. Of those, about 10 will need servicing in the next couple of months.
- Based on results from modeling and field studies, POSGCD estimates that if the Carrizo pumping is not reduced below 18,205 AFY, there could be as many as 140 Carrizo wells in our district that will need to have their pumps lowered or wells redrilled by 2050.
- As a result of these concerns, POSGCD will be asking Districts in the next GMA 12 meeting to support a modification of run S-7 to set a maximum production rate of 12,000 AFY in the Carrizo for POSGCD. This change will result is less drawdown in the Carrizo across the entire GMA and result in management of the aquifer consistent with intentions of our Board.
- It is important to note that we are not requesting any of the pumping files for other GCDs in GMA 12 to be changed, and no DFCs for any of the districts in GMA 12 will be increased in the Carrizo Aquifer.

In a vote of 4 to 1 (with POSGCD being the 1 nay vote), GMA 12 approved the proposed DFCs listed in **Table 3** for POSGCD. The DFCs listed in Table 3 are based on drawdown predicted from GAM run S-12 (Scenario 12), which included a maximum Carrizo production rate of 18,206 AFY in 2070. In developing the pumping for GAM Run S12, GMA 12 used the Carrizo pumping from GAM Run S-7, which was one of the bookend GAM simulations developed by GMA 12 in 2019. GMA 12's rationale for using the Carrizo pumping of 18,206 AFY in 2070 was that it included "known pumping."

Table 3 GMA 12 Proposed DFCs for POSGCD for the 3rd Joint Planning Cycle

Aquifer	3rd Planning Cycle	
	Simulated Drawdown from Jan 2010 to Dec 2069	2069 Production in GAM simulation (acre-feet/year)
Sparta	32	4,105
Queen City	31	7,838
Carrizo	172	18,206
Calvert Bluff	179	4,761
Simsboro	336	79,433
Hooper	214	3,126
Total		117,469

2.0 Rationale of POSGCD's Position on Proposed Carrizo DFCs

POSGCD assessed the process used to develop the proposed DFCs for the Carrizo Aquifer to be unreasonable because it does not meet the requirements set out in Chapter 36 of the TWC for establishing DFCs. The discussion below provides the rationale and support for POSGCD's position. The discussion is divided into the following three subject areas of concern.

- Development and Use of GAM Run S12
- Chapter 36 of the Texas Water Code requirements for establishing DFCs
- POSGCD Management Strategies, Policies, and Rules to locally manage groundwater

Development and Use of the GAM Run S12: The pumping rates used to define the GAM runs for GMA 12 are prepared by the Districts' Consultants under directions provided by the GMA 12 members. The POSGCD pumping rate of 18,205 AFY in GMA Run S12 for the Carrizo Aquifer is based on the pumping rates developed by the GCD Consultants for GMA Runs S1 and S7, which were presented in GMA meetings in August 2019 and September 2019, respectively. GAM runs S1 and S7 were developed by the GCD consultants to represent production from existing permits.

All of the pumping rates for the GMA 12 GAM Runs prior to 2021 were generated through a process whereby each GCD was responsible for developing the pumping rates over time for their counties and the GCD hydrogeologic consultants merged the pumping rates into a single file. Also prior to 2021 each GCD created their pumping rates independently of each other. In 2021, GMA 12 voted to accept GAM Run S12 and to prevent POSGCD from reducing the Carrizo pumping in Milam and Burleson counties because, ostensibly, any reduction in the POSGCD Carrizo pumping would prevent the Run S12 from representing "known pumping." In particular, several GCDs specifically identified the need to include the "known pumping" for the Vista Ridge project. Among the concerns that POSGCD has with GMA 12's requirement that "known pumping" needs to be included in a GAM Run used for supporting and justifying the proposed DFCs are:

- GMA 12 has not defined "known pumping" nor have the GMA consultants discussed a workable definition or meaning for "known pumping" and to date this discussion has only been applied to one GCD and one aquifer in the GMA.
- If GMA 12 is to include "known pumping" in GAM runs then GMA 12 needs to have written protocols for how "known pumping" will be represented and documented in a GAM pumping file. More importantly, GMA 12 would need to show that the incorporation of 'known pumping" is consistent with the requirements and intent of Chapter 36 in TWC for establishing DFCs. Currently, GMA 12 has no written protocols for determining how any pumping will be presented in its GAM simulations.
- The vast majority of the pumping rates in GAM Run S12 are based on GAM Run S7. Run S7 developed by the GCD consultants used permitted pumping amounts and the assumption that permits would be remain in full effect through 2070 even though the term of many permits expires decades prior to 2070.
- If GAM runs are to include "known pumping" and GAM runs are used to establish DFCs that exist 50 years into the future, then the process ensures drawdown-based DFCs will gradually get larger with each 5-year planning cycle if no curtailment can be affected and production increases as existing permits reach their limits and new permits are granted. Such a process wherein DFCs would tend to gradually increase over time will prevent POSGCD (or really any of the GCD's) from effectively managing groundwater using their existing policies and strategies or developing new ones as necessary.

Chapter 36 of the Texas Water Code requirements for establishing DFCs: The TWC lists two key requirements for DFCs. TWC §36.108 (d) states that the districts shall consider nine factors when

developing the DFCs, which are listed in the statute. Section 36.108 (d-2) states that DFCs "must provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence." Among the concerns that POSGCD has with the GMA 12 process used to develop the proposed DFC are the following:

- POSGCD used the results from its 2020 GANA report (Young and others, 2020) and related groundwater model simulations to determine that an appropriate DFC would be 145 feet of average drawdown in the Carrizo aquifer to achieve the *balance* described in TWC §36.108 (d-2). Results of this analysis were provided to GMA 12 through POSGCD presentations and were sent to each GCD by Director Wise. The previously mentioned 4-1 vote by GMA 12 essentially disregarded POSGCD's analysis. Therefore GMA 12 did not achieve an appropriate "balance" and provided no basis for why the DFC should be raised from 145 feet to 172 feet.
- GMA 12 has not yet provided any evidence or discussion to show that the proposed DFCs in Table 3 achieve the balance required in TWC §36.108 (d-2).
- TWC §36.108 (d) states that the districts ***shall*** consider nine factors before voting on the proposed DFCs. GMA 12 consultants' presented information on these nine factors. However, the nine factors were not included in the discussion when determining the Carrizo DFC in 2070 for POSGCD. Instead, GMA 12 voted to use the drawdowns predicted from GAM Run S12 as the overriding factor for the establishing the 2070 DFC for the Carrizo for POSGCD.
- The GMA 12's discussion of the nine factors did not address the potential 140 Carrizo wells in POSGCD that will need to be redrilled or have pumps lowered by 2050 if the "known pumping" is used to determine the Carrizo DFC for POSGCD. POSGCD therefore argues that GMA 12 did not meet the intent of the TWC §36.108 (d) requirement to consider *all* nine factors, which include the socioeconomic impacts as well as impacts to the interest and rights in private property.

<u>POSGCD Management Strategies, Policies, and Rules to Locally Manage Groundwater</u>: POSGCD's management strategy based on draw down and water level decline has been crafted and refined since 2005. Part of POSGCD's management strategy includes evaluating water levels relative to existing well screens. Studies have reviewed these management strategies and found merit. These strategies have undergone challenges and scrutiny – not once but twice – at TCEQ through the petition process.

The GCDs in GMA 12 have different approaches for establishing DFCs, demonstrating compliance with DFCs, and managing groundwater to achieve a DFC. As a result of these different approaches, the DFC process must account for and accommodate *all* the different approaches to the extent that is practicable and consistent with TWC statutes and with judicial rulings related to groundwater management.

Prior to, and throughout the Joint Planning Process, POSGCD has used drawdown-based conditions to guide groundwater management strategies and decisions. These conditions have been, and continue to be, primarily determined using a multi-decision process that avoids using a GAM to determine a DFC from pumping inputs. The multi-decision process allows POSGCD the

option of selecting the same, or similar DFCs for adjacent DFC planning cycles even if production and/or permitted pumping increases over time. Among the concerns that POSGCD has with the GMA 12 process used to develop the proposed DFC are the following:

- Introducing the undefined term of "known pumping" as a factor and considering it "in perpetuity" at this juncture; this approach makes it such an overriding factor, it creates a situation wherein POSGCD's long term management strategies have been made virtually obsolete.
- Use of this "known pumping" as a factor – even an overriding factor – to be considered is NOT one of the nine factors that the GCDs are required per TWC 36.108, and as such is potentially a misapplication of state law.
- Inputting "known pumping" which appears to some GCDs to equate to permitted pumping in perpetuity in the joint planning process to determine a DFC is not consistent with the underlying principles for groundwater management as set out in TWC Sec. 36.108.
- Prior to, and throughout the Joint Planning Process, POSGCD has included curtailment of groundwater production as the key management strategy in achieving the "balance" of conservation and production/protection of groundwater and property rights therein. POSGCD's rules tie the District's authorization for curtailment to reaching thresholds that are expressed as a percentage of the DFCs. In order for POSGCD to properly maintain its well-established management strategies, GMA 12 needs to develop a methodology that allows a District to achieve (or maintain) a DFC for a set period of time. The GMA 12 recent process of incorporating "known pumping" used to create the proposed DFC is not conducive for managing toward a specific DFC; rather, this new GMA 12 process with this additional factor is conducive for adjusting a DFC to allow current production and permitted production to continue, or perhaps expand, indefinitely.
- The proposed DFCs are for a time that is approximately 50 years into the future. GMA 12's proposed methodology would require that "known pumping," associated with all permits, be continued for such 50-year period in a GAM Run no matter what the term associated with the permit. This creates a situation where DFCs will tend to favor higher drawdowns and indirectly handicap a GCD's ability to implement curtailment if the GCD's rules for curtailment require that the 2070 DFC not be exceeded.
- GMA 12 has adopted a 10% variance between the average drawdown predicted by a GAM Run and a DFC. POSGCD demonstrated to the GCDs within GMA 12 that the 10% variance would be sufficient for all GCDs to keep their proposed DFCs in Table 3 for the Carrizo for a modified GMA 12 Run and that POSGCD's Carrizo maximum pumping rate could be reduced to about 12,000 AFY. As a result of the previously mentioned 4-1 vote, GMA 12 representatives did not accept the modifications presented by POSGCD.

3.0 Summary

Based on the foregoing, POSGCD assesses the process used to develop the proposed DFCs for the Carrizo Aquifer to not be reasonable. Further, and perhaps more importantly, the process does not meet the requirements set out in Chapter 36 of the TWC for establishing DFCs. POSGCD supports its evaluation based on the above set-out discussions with the three subject areas of concern.

- Development and Use of GAM Run S12
- Chapter 36 of the Texas Water Code requirements for establishing DFCs
- POSGCD Management Strategies, Policies, and Rules to locally manage groundwater.

Attempting to give reason to GMA 12's rejection of the POSGCD-suggested solution supports the notion that the end goal of the 3rd joint planning cycle is more about developing precedents for enforcing an unwritten rule of including the undefined term "known pumping" into GMA methods used to develop DFCs together with an idea that such undefined term is perpetual rather than adopting DFCs that assist all Districts with achieving their management goals. Such actions may require one District to curtail unnecessarily while others benefit from such curtailment. Such rejection also seems to belie what true "management" and the nine requirements set out in 36.108(d) mean to those Districts within GMA 12.

Lost Pines Groundwater Conservation District
Post Oak Savannah Groundwater Conservation District
Brazos Valley Groundwater Conservation District
Mid-East Texas Groundwater Conservation District
Fayette County Groundwater Conservation District

July 21, 2021

Dear Boards of the GMA-12 Groundwater Conservation Districts:

As a landowner and an attorney, I urge you to reject the proposed DFCs.

The proposed DFCs prioritize the interests of large commercial pumpers at the expense of every other interested party: domestic well owners, small local businesses, anyone who relies on surface waters (which are connected to groundwater), our environment, and all future users.

This approach ignores the clear statutory requirements of Chapter 36 of the Texas Water Code, which direct GCDs to balance production with conservation and preservation of our water resources. In setting the DFCs, GCDs are supposed to consider nine factors, including the impacts on all landowners, surface waters, and the environment.

Instead of addressing these factors, the proposed DFCs look at one element alone – what is needed to allow all current pumpers to continue pumping unabated.

This is not only inconsistent with Chapter 36, but it appears to be a response to baseless threats. I have read the letter sent by Vista Ridge to the GCDs, and it is apparent that Vista Ridge seeks to intimidate the GCDs into setting the DFCs at such a level that it, and other large commercial pumpers, will never have to reduce their pumping.

I believe that attorneys representing other landowners have already provided information on the likelihood of a takings challenge against the DFCs being dismissed for lack of ripeness. So I will instead briefly comment on the merits of such a takings claim.

One of the factors courts look at in a takings claim is whether the party claiming a taking had "reasonable, investment-backed expectations" that their use of the property would be allowed. Thus, for example, a landowners' investment in irrigation wells is relevant evidence.

But simply spending money to build wells does not meet this test. **The expectation must be "reasonable."**

As a frequent attendee of the Post Oak Savannah GCD meetings, I have repeatedly heard statements that indicated that Vista Ridge believed that the groundwater models were overly conservative and that its pumping would not result in exceedance of the DFCs that existed when its permit was granted.

There have also been repeated public statements that Vista Ridge was informed at the time its permit was granted that it would face cutbacks if necessary to avoid exceeding the DFCs. The Vista Ridge permit has been amended twice in recent years, and the potential for its pumping to be reduced based on DFC exceedance was repeated each time.

In other words, Vista Ridge **cannot** have a **reasonable** expectation that the DFCs would be increased to avoid the need for cutbacks. The claim could not withstand the sort of inquiry that occurs in a court case during discovery or a trial. Vista Ridge's best hope to allow its pumping to continue unabated is to avoid such a court case by convincing the districts within GMA-12 to sacrifice all other interests in setting new DFCs.

I urge you not to cave to these tactics. Please reject the proposed DFCs and develop revised DFCs that comply with the statutory directives to consider all the affected interests.

Sincerely,
Judith McGeary
P.O. Box 809
Cameron, TX 76520
Judith@FarmAndRanchFreedom.org
512-484-8821 (cell)

Cc: Simsboro Aquifer Water Defense Fund
Environmental Stewardship

From: Dianne Wassenich
To: dopez@brazosvalleygcd.org; Alan Day
Subject: public comment on GMA-12 DFC
Date: Monday, July 26, 2021 9:58:09 PM

Please reject the flawed and unreasonable proposed DFC of GMA 12 and send the DFC back to them to revise in a way that is sustainable, and protects our domestic wells and the Colorado River. You still have time in your process to do this revision and achieve a balance of uses and protections of the groundwater and the surface waters connected to the groundwater. Your districts in GMA 12 need to agree on management that works for all the districts, protecting all of them.

Dear Mr Cast and Mr Day and the BVGCD board:

I am sorry I could not be at your public hearings. I wanted to see you in person to tell you how important I think it is for you to protect our groundwater in our area and keep the Desired Future Conditions sustainable and adequate to have springs continue to flow to maintain the flow in the river, and for our farm. My brothers and a sister and I own a farm that was our grandparents' farm in Fayette County, and then my parents owned it and left it to us. We need our wells to remain healthy and usable! A draw down or mining of our aquifer, beyond what rains can support in recharge is just not sustainable. With climate changing so much, we can expect droughts worse than the 50's to come our way soon.

The landowners like us who have domestic and livestock wells, will be the ones left hanging when water development removes large quantities of water, if permitted to do so beyond what the aquifer can yield. I beg you to think of your future generations of your own family and how they would survive if their wells are drawn down, springs dried up and the Colorado does not even have enough flow. Please listen to those with Environmental Stewardship who are doing the modeling and science to help you plan a sustainable water future. Use their modeling and information to assist you. Work with the other groundwater districts to do the right thing, and set policies that can work among the districts for sustainable future plans.

My grandfather lived through the 50's drought and had a well starting in the 1920's. We can see how much the aquifer has changed already, and hope you are listening to the warnings of what is in our future if sustainable DFC's are not put in place, for all those in our region who depend on you to protect our important water for the future. This is critical to not only farmers, and ranchers, but towns and industries too.

Thank you for allowing me to comment, I hope it helps you,
Dianne Wassenich, 11 Tanglewood, San Marcos Tx 78666
(I live in San Marcos and my siblings live in other counties, downstream near the Colorado River, but we all care very much about the aquifer that is below all the counties of GMA 12.)

--
Dianne Wassenich
512-787-6392

From:	Melanie Pavlas
To:	Cynthia Lopez
Cc:	Alan Day
Subject:	Proposed DFCs
Date:	Tuesday, July 13, 2021 1:32:20 PM
Attachments:	image001.png

Mr. Cast,
On behalf of Pines and Prairies Land Trust, I am contacting you about the proposed Desired Future Conditions and to urge you to reject them. We understand the difficult role you have taken and commend you for it. However, our groundwater, communities, rivers, springs and streams (and the people and wildlife that need them) depend on achieving a balance between conserving and protecting of our water resources (both groundwater and surface water systems) and the development of those resources. Putting those resources at risk puts our lives and our landscapes at risk. And while we understand that balance can be difficult to manage, we also believe it undoubtedly can be done.

Good planning requires agreement on management policies to guide the development of Desired Future Conditions. The districts were unable to agree on unified management policies workable for all the districts and unfortunately, have provided proposed DFCs based on controversial and flawed principles. As a result, the proposed DFCs for GMA-12 protect only permit holders — the big pumpers — by adopting drawdowns that allow them to pump to the limits of their permits, while local domestic and livestock wells are left high and dry and our local ecosystems suffer.

Whether or not a groundwater district mitigates failed local wells or not, the proposed DFCs unreasonably impact our aquifers. Likewise, the proposed DFCs will deprive our surface water systems of the inflows from aquifers that they depend on.

It is your duty to do the work to achieve the required balance and we trust and support you to do just that.

Sincerely,

Melanie Pavlas
Executive Director
PO Box 737 (mailing)
1018 Main St., Ste. B
Bastrop, TX 78602

512-308-1911
www.pplt.org

she/her

Alan Day

From: Steve Box <steve.box@att.net>
Sent: Thursday, July 22, 2021 11:26 AM
To: Gary Westbrook; James Totten; David A. Van Dresar; Alan Day; David Bailey
Cc: Eric Allmon; Marisa Perales; Claire Wunderlin
Subject: ES Comments to Districts on Proposed DFCs
Attachments: ES Comments to GMA-12-Districts22July21-FINAL.pdf; ATT00001.htm

Follow Up Flag: Follow up
Flag Status: Flagged

GMA-12 Representative and District Boards,

Please find attached Environmental Stewardship's summary comments on the GMA-12 Proposed Desired Future Conditions with our request that these DFCs be rejected and remanded back to the GMA-12 representatives for revision.

We are requesting that these comments be provided to the President and members of each of the five member Districts.

We are asking you, as the Board of Directors in your respective Districts to *reject* these Proposed DFCs in favor of DFCs based on:

- **sustainable management of the aquifers,**
- **maintaining the resilience of surface waters to drought, and**
- **protection of exempt landowner domestic and livestock wells.**

It is important that you recognize that there is plenty of time to revise the DFCs. In fact, the statutes mandate revisions based on public comments. The GMA has until January 5, 2022, to make and submit revisions. We are requesting that the revisions be based on Scenario Run S-3 which represents the currently adopted DFCs. In this scenario, the pumping file from the old GAM was modified slightly to be able to be run on the new GAM. The following section provides information on our expectations regarding revisions to the DFCs. Our comments include recommendations on how this can be accomplished.

Thank you for the opportunity to provide our input and comments.

Respectfully,

Steve Box
Board President & Executive Director
Environmental Stewardship,
a WATERKEEPER® ALLIANCE Affiliate
512-300-6609 cell
http://www.environmental-stewardship.org

PROTECTING THE NATURAL RESOURCES OF THE LOST PINES AND TEXAS GULF COAST

Proposed Desired Future Condition(s) for Aquifer(s) in GMA 12

Environmental Stewardship
Comments To District Boards
Submitted July 22, 2021

From:
Steve Box, Executive Director
Environmental Stewardship
P.O. Box 1423, Bastrop, TX 78602
512-300-6609
Executive.Director@envstewardship.org

To:
Brazos Valley GCD Board of Directors
Fayette County GCD Board of Directors
Lost Pines GCD Board of Directors
Mid-East Texas GCD Board of Directors
Post Oak Savannah GCD Board of Directors

Dear Board of Directors,

I want to thank you for allowing us the opportunity to share our concerns about the Proposed Desired Future Conditions with you. Environmental Stewardship's primary concerns relate to the predicted impacts of the new Proposed DFCs based on Run S-12 on surface waters as compared to the predicted impacts of the Currently Adopted DFCs on the Colorado River. Our second concern, which is addressed by the Simsboro Aquifer Water Defense Fund (SAWDF), is the impact of the, now active, Vista Ridge pumping on exempt domestic and irrigation wells in Burleson and Lee Counties. Landowners have, within six months of the initiated pumping, been experiencing damage to their wells.

When domestic wells are being impacted in this manner, the aquifers that supply water to these wells are likewise being impacted. Furthermore, the negative impact of this current pumping, along with proposed permitted pumping, stems from the same hydrological conditions that impact outflows of groundwater to surface waters such as the Colorado and Brazos rivers and their tributaries. As such, it is incumbent on the districts to take adaptive management actions to remedy this situation rather than to approve very significant increase in the amount of pumping without understanding the nature of the fundamental problems that exist.

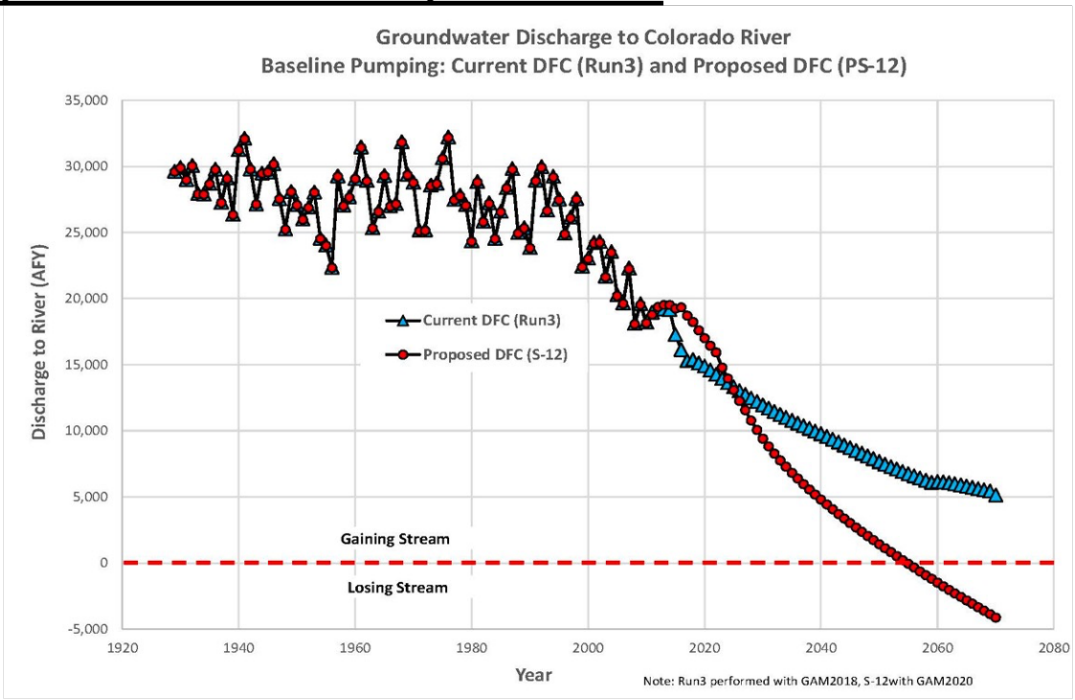
Our over-arching concern relates to the GMA-12 management policies that have rapidly evolved over the last 9 months. These policies, which are imbedded in the Proposed DFCs, will have serious immediate and future consequences on management policies within the joint-planning process. Such policies should help all the districts manage the development of the aquifers in a way that is sustainable, and balances pumping against the conservation and protection of surface waters and aquifers, while retaining their ability to curtail (slow down pumping) when the damage is imminent **Most urgently, the impact of changes in management policies that have a negative impact on the ability of Districts to curtail pumping need to be resolved, and agreed by the districts, prior to new DFCs being adopted.**

It is for these reasons that we respectfully ask that your Board reject the Proposed DFCs and remand them back to the GMA for revision.

I. IMPACTS OF PROPOSED DFCs ON SURFACE WATERS

IMPACT OF PUMPING ON OUTFLOWS TO MAIN STEM COLORADO RIVER

Adopted 2017 DFCs vs. Proposed DFCs:



Predicted reduction of discharge of groundwater into the mainstream Colorado River due to Current DFC Run 3 and Proposed DFCs S-12 (George Rice, New GAMs).

This graphic represents the impacts that are predicted by the new GAM. The graph shows the relationship between the pumping associated with each DFC and the impact on outflows to the Colorado River

- Blue is the Currently Adopted 2017 DFCs as depicted by Run 3 using the NEW GAM.
- Red is the Proposed DFCs based on Scenario S-12.
- The Historical Calibration period is from 1930 to 1995
- The Developmental Period is 1995-2070
- Gaining Stream vs Losing Stream Redline

Comparing the two runs we see that the greater the amount of groundwater being pumped, the greater the reduction in discharge from the aquifers to the main stem of the Colorado River. This trend toward reversing the groundwater-surface water relationship over the next 50 years is undisputed. This is an example of how the model serves to demonstrate the difference between these two runs, in this case the two DFCs. The key difference is that the Current DFCs do not cause the relationship between the river and the aquifer to reverse, whereas the S-12 Scenario causes the river to change from a gaining to a losing stream somewhere in the 2050-60 timeframe.

IMPACT OF PUMPING
ON OUTFLOWS TO MAIN STEM COLORADO RIVER

Discharge to Colorado River - AFY (1)				
Year	Pre-Development	Early Pumping	Current DFC	Proposed S-12
1930	29,600			
1995	27,500			
2011		18,700		
2070			5,150	-4,100
Change from 1930	**-2,100**	**-8,800**	**-22,350**	**-31,600**
	-7%	**-37%**	**-83%**	**-114%**

(1) Data From Rice Current vs Proposed DFC Graph

This table gives a quantitative view of the predictions from an historic perspective. It is very clear that the early pumping -- from around 1995 to 2011 -- caused considerable impact on the river; about a 37% decline in discharge to the Colorado River compared to 1930. Following that early unregulated pumping time period is the Current DFC time period. This is the regulated joint-planning phase where desired future conditions are being established. **In the currently adopted DFCs column the predicted decrease in discharges to the Colorado River is whopping *83% less discharge* than the historical outflows.**

In the Proposed DFCs column, the predicted decrease in discharge is an additional 31% more that the Current DFCs. This results in a devastating *114% less discharge than historic flows and reverses the relationship between the river and the aquifers.*

- Whereas the quantity of pumping in the 2017 adopted DFCs is predicted to cause a significant decrease in outflows to the river; an impact that may be unreasonable in-and-of itself,
- The Proposed DFCs are predicted to decrease outflow to the point that the Colorado River LOSES water to the aquifers. **This is an impact that Environmental Stewardship sees as a *bright line between what is reasonable and what is unreasonable.***

Hydrologically, this is a complete reversal in the flow of groundwater and surface water relationship. At this point the river starts contributing water to the aquifer on an on-going basis. This sets up hydrological conditions for the RIVER could go dry during drought periods. But more certainly, it sets up condition where the river will lose its biological and ecological resilience that enables it to bounce back to being an ecologically sound environment after a serious drought.

The Proposed DFCs based on Scenario Run S-12 cross the bright line and are unreasonable.

At the December 2020 GMA-12 meeting, Environmental Stewardship provided the GMA Representatives with the results of an analysis of the impacts of current and proposed pumping on the Colorado River from the perspective a surface water scientist - Joe Trungale – using surface water modeling techniques. Mr. Truangale used the environmental flow standards as a means of evaluating the impact of reduce groundwater discharges to the Colorado River.

This evaluation also predicted unreasonable impact of groundwater pumping on the Colorado River.

Senate Bill 3, the basis for the environmental flow standards, established that maintaining the biological soundness of the state's surface waters is of great importance to the economic health and general well-being of Texans.

In summary:

- The Colorado River at Bastrop and below is fully appropriated to surface water right holders. As such, ***any decrease in flow due to reduced groundwater discharge will negatively impact these permit holders.***

- ***Such reductions in flow also impact the ecological health of the river and its ability to recover from drought conditions***. As you might recall, the lower Colorado basin was intensively studied during the LCRA/SAWS project by many different scientists and engineers. These were major studies making this basin one of the most studied basins in the State. Based on these studies instream flow standards were set at several gages on the river – including Bastrop. The intent is that these standards be maintained at recommended frequencies year round.

- These standards are not being met at recommended frequencies, and ***any reduction in flow due to groundwater pumping will likely result in future reductions in these frequencies, damaging the ecology of the river. Such damage to the ecology of the river is a trend in the wrong direction, and we consider this to be an unreasonable impact.***

Environmental Stewardship has demonstrated, from a groundwater availability perspective and from a surface water availability perspective, that the predicted pumping will likely result in *unreasonable* impacts to the Colorado River. Certainly, the Proposed S-12 DFCs cross the line into unreasonable territory and should be *rejected*. If not outright rejected, the potential of unreasonable harm must be recognized and dealt with.

As such, it is our view that the only reasonable option is to r*eject* the Proposed DFCs and *remand* the process back to the GMA Representatives to develop DFCs using the Currently Adopted DFCs as the basis for setting DFCs that are not predicted to cross this hydrologically and ecologically unreasonable line of impact.

II. MANAGEMENT POLICIES AND PRACTICES: THE ROLE OF NON-EXMEPT PUMPING IN DEVELOPMENT OF DESIRED FUTURE CONDITIONS

Management policies and practices are in a state of flux in Groundwater Management Area 12. Joint planning among districts is supposed to help all of the districts manage the development of the aquifers in a way that balances pumping against the conservation and protection of aquifers, while retaining their ability to curtail (slow down pumping) when the damage is imminent However, the standards for developing desired future conditions in GMA-12 are changing, yet there is no agreement between the District Representatives on the changes. As a result, the representatives from four of the districts have imposed their will on the fifth district rather than reaching a workable and agreeable

resolution of the issues involved. Certainly, this does not help all of the districts achieve the joint planning objectives.

Per the Texas Water Code, joint planning among districts is supposed to help all of the districts accomplish their *individual* management goals, as reflected in their management plans. Stated another way, the Code does not require "GMA-12" --- which TWDB does not consider to be a legal entity --- to be the tail that wags the dog. Instead, it is the other way around.

The Code directs that the district representatives, as a joint planning body only, are to *consider the effectiveness of the individual district management plans for conserving and protecting groundwater and preventing waste.* They are to do this by considering how the *individual district's management goals achieve that district's desired future conditions, how those DFCs impact on planning throughout the management area, and how effective these measures in the management area generally*[1]. **Groundwater districts, not groundwater management areas, are the state's preferred regulatory managers of groundwater.**

Unfortunately, in this round of joint planning, an important concept has been overlooked, leading to an *error* that is embedded in the Proposed DFCs based on pumping file S-12.

In this round of joint planning in GMA-12, it was inappropriate for the districts, as a group, to require that the member districts take a uniform approach across all the districts to the pumping file -- the file upon which the desired future conditions are based. Each district is entitled to respond to its electorate to adopt its own pumping and curtailment strategy[2]. So, the pumping file for each district should reflect its own approach. It makes perfect sense to be different from one district to another, just as aquifer conditions, aquifer demands, and local impacts may differ widely.

Using different strategies (assumptions) for the different pumping files for different districts is what the law commands, to be respectful of districts as the *local* groundwater management entities. **Nothing about participating in a GMA is intended to undermine the autonomy of each district.**

Certainly, this includes the ability for all of the districts to balance pumping against conservation while retaining their ability to curtail (slow down pumping) when damage is imminent. Instead, the GMA districts voted to have each district's DFCs conform to a single pumping file configuration, and that configuration is embedded in S-12.

An important policy discussion took place at the March 18 meeting of the GMA-12 District Representatives leading to a 4-1 vote on the new Proposed DFCs. The representatives took up a discussion of the controversial GAM Run S-12 and whether to use it as the base run for the proposed DFCs. Much of the controversy over the appropriate pumping file to be used was sparked by a November 10, 2020, threatening letter from Paul M. Terrill III[3] to Gary Westbrook regarding Blue Water Vista Ridge Desired Future Conditions.

---

[1] Texas Water Code, Chapter 36.108(c)(1-4)

[2] EAA v Day, p 30. While districts have broad statutory authority,[109] their activities remain under the local electorate's supervision.[110] Groundwater conservation districts have little supervision beyond the local level. Districts are also required to participate in joint planning within designated groundwater management areas ("GMAs").[113]

[3] Terrill III, Paul M., November 10, 2020, to Gary Westbrook, General Manager, Post Oak Savannah GCD re: Blue Water Vista Ridge – Desired Future Conditions. https://www.environmental-stewardship.org/wp-content/uploads/2021/04/JamesBeneBluewaterComments_2020-11-10-BWVR-to-POSGCD-re-DFCs.pdf

After discussion they voted to use the S-12 model that was favored by 4 of the 5 District Representative. Post Oak GCD, the District that received the letter, voted against the S-12 pumping file. Though the subject had been discussed during several of the previous meetings, below is a summary of the 33 minute discussion during the March 18, 2021, meeting. And here is a link to a video of the discussion so you can hear it "live" if you prefer; jump to time 8:20 in the video.

In his plea to maintain Post Oak's manage policy, Mr. Westbrook, told the other District Representatives, "**This is management we have had in place for over a decade that we believe tracks our mission statement considering conservation is important while recognizing that property rights are important.**

We also recognize the balance that is required in considering the property rights of those who wish to produce as well as the property rights of those who wish to conserve for the future. We are very very adamant about our belief that when we are required, at the GMA level, to consider all nine factors, that we believe our approach does give more consideration to conservation than just putting everything in a pumping file and rolling forward.

We respectfully request that you allow us to manage the Carrizo as we have always desired. Once we set the precedent, and I believe this would be a precedent, it will be hard to undo. If our DFC is raised so much higher, then really, we won't be able to do any management. You can't curtail until you approach those desired future conditions because these [new] DFCs would have to be allowed.

By law you can't go past them, but you have to allow them. And so that is the whole point to the challenge of this pumping file issue, is that once we determine that this is the file that is going to be used, then **the [new] number that comes back is 178 ft of drawdown. And so now, another 100 wells have to be mitigated. So that is another social-economic impact to landowners, and that is the balance we are trying to achieve, but we can't achieve it if you force us into that 18,000 acre-feet per year [S-12] pumping file. The last round [desired future condition] was not 18,000 acre-feet per year in the Carrizo but was a much smaller number [7,000 acre-feet per year per Steve Young."]**

Environmental Stewardship has verified, through direct observation of the values in the pumping file associated with the currently adopted DFCs, that Post Oak Savannah's pumping from the Carrizo Aquifer was as listed in the following table.

Pumping from the Carrizo Aquifer (AFY)
Post Oak Savannah GCD

Year	DFCRun3	S-12
2020	4706	11,191
2040	6119	17,459
2070	7060	18,158

Per George Rice, 4/12/2021

In the vote that followed the above discussion, the four districts that were concerned about being drawn into a lawsuit if Blue Water sued Post Oak, forced their will on Post Oak Savannah GCD. In doing so, they essentially eliminated Post Oak's ability to curtail the Vista Ridge project even though, after only about six months of pumping at the higher withdrawal rate, dozens of landowner's domestic wells in Burleson and Lee Counties are being damaged, costing 10's of thousands of dollars to repair.

Worse, the damage to the aquifers in these counties continues, and will continue, for many decades unless the Proposed DFCs are rejected and revised.

When domestic wells are being impacted in this manner, the aquifers that supply water to these wells are likewise being impacted. Likewise, the negative impact of this current pumping, along with proposed permitted pumping, stems from the same hydrological conditions that impact outflows of groundwater to surface waters such as the Colorado and Brazos rivers. As such, it is incumbent on the districts to protect these resources by taking adaptive management actions to remedy this situation rather than to approve double the amount of pumping without understanding the nature of the fundamental problems that exist.

The over-arching concern is the unresolved management policies that have rapidly evolved within the jurisdiction of the five groundwater conservation districts, over the last 9 months. These policies, reflected in the Proposed DFCs, will have serious immediate and future consequences on management policies within the joint-planning process. Most urgently, the impact of changes in management policies that have a direct negative impact on the ability of Districts to manage curtailment of pumping when the DFCs are exceeded need to be resolved and agreed policies adopted before future DFCs are adopted. As such it is imperative that the Proposed S-12 DFCs are rejected and sent back to the GMA for revisions.

Since much of what drove the decision and decision to force Post Oak GCD to use the S-12 GAM run was the threats of litigation, Environmental Stewardship requested that its legal counselor, Eric Allmon, prepare a letter on the role of non-exempt pumping in the development of desired future conditions. The main point of the letter is to address the issue of the threats of litigation that seem to be driving the position by some that the DFCs must include 100% of all permitted pumping in order to avoid litigation. Mr. Allmon lays out the legal framework and court findings that support the position that the DFCs must *balance* conservation and protection of the aquifers and the 9 factors required to be considered against development in order to sustain the DFCs against litigation by water marketers and others.

We encourage you to read Mr. Allmon's letter[4] and take it to heart as you deliberate on the adoption of DFCs. This brief was provided to all of the GMA-12 District Representatives and their respective Board of Directors on June 3, 2021.

III. OUR REQUEST

We are asking you, as the Board of Directors in your respective Districts to *reject* these Proposed DFCs in favor of DFCs based on:

- **sustainable management of the aquifers,**
- **maintaining the resilience of the Colorado River to drought, and**
- **protection of exempt landowner domestic and livestock wells.**

It is important that you recognize that there is plenty of time to revise the DFCs. In fact, the statutes mandate revisions based on public comments. The GMA has until January 5, 2022, to make and submit revisions. We are requesting that the revisions be based on Scenario Run S-3 which represents the currently adopted DFCs. In this scenario, the pumping file from the old GAM was modified slightly to be able to be run on the new GAM. The following section provides information on our expectations regarding revisions to the DFCs.

---

[4] Allmon, Eric, Perales, Allmon & Ice, P.C. June 3, 2021. Initially addressed to Sidney Youngblood, President, Post Oak Savannah GCD, and provided to all District Boards by email from Elena M. Solimano, on the same date. https://www.environmental-stewardship.org/wp-content/uploads/2021/05/2021.06.03-ES-DFC-Letter.pdf

IV. RECOMMENDATIONS FOR REVISING DFCs

In a *resilient* sustainability model that takes into consideration the ecology of the region, the amount of groundwater that can be pumped must be greater than or equal to the amount required to meet both human and environmental needs for the foreseeable future. As such, a major consideration is to determine the amount of groundwater and surface water needed to sustain both human demands and environmental health[5]. Based on this total demand, the amount of groundwater that can be *sustainably pumped* must be such that the surface waters are also conserved and protected while also protecting the property rights of exempt domestic wells. Modeling consistently demonstrates that the majority of the groundwater pumped originates as surface water. Only a minor portion of the water pumped is sourced from groundwater storage.

Proposed Desired Future Condition(s):

Guiding Principles:

In conformance with the Conservation Amendment of the Texas Constitution, it is the duty of Groundwater Conservation Districts to conserve and preserve the natural resources of the state -- our groundwater, our rivers, our springs, and our bays ... our ecosystems — by passing laws, rules, and for the purposes of this effort, adopting desired future conditions, that achieve a balance between conservation and development of those resources *in perpetuity*. To protect our aquifers as we found them while respecting the ownership rights of landowners.

Though the ability to preserve an aquifer for future generations is not totally in our control — its rate of replenishment, and its hydrologic characteristics, are largely a function of Mother Nature and must be accepted and respected — development of an aquifer, and ultimate depletion of an aquifer and/or the surface water and ecosystems which depend on groundwater, *is the voluntary human action in which we are currently engaged.*

The essence of conservation and preservation of an aquifer resource is that the rate at which we deplete our aquifers must be in balance with the protection of the aquifer and its associated surface waters. That the depletion is not driven only by the desire for development, against which we simply wait for damage to the ecosystem's sustainability before attempting to bring it back “in balance”. Only when a definite "conservation standard” describing a sustainable ecosystem is established — an ecosystem that is preserved in perpetuity — can we then determine how much of that aquifer we can develop in balance with the conservation standard.

Since the inception of the DFC joint planning process, GMA-12 has always started by exploring the production-side of the balance bar. ES and SAWDF request that GMA-12 begin the next joint planning process by exploring conservation and protection of the existing ecosystem *for the common good of future generations*.

[5] A sound ecological environment as defined in Senate Bill 3.

As a practical matter, GMA-12 should use the best science available, along with the GAM, to predict the amount of groundwater that can be continuously pumped over many centuries[6] without damaging the surface waters from which much of the water pumped is ultimately sourced[7]. In modeling these conditions, GMA-12 is required to fully consider the nine (9) items prescribed by the legislature while seeking to satisfy the mandate to maximize groundwater pumping to the extent possible while *balancing* the development of the groundwater resources against the requirement to conserve and protect.

ES & SAWDF Request:

When we next review and adopt DFCs, Environmental Stewardship and SAWDF will be requesting that the DFCs be revised in such a way to be based on the following three criteria:

1. Sustainable management of the aquifers (as described above, not just sustainable pumping),
2. Maintain the resilience of the Colorado River to drought conditions by maintaining its gaining relationship with the aquifers, and
3. Protection of exempt landowner domestic and livestock wells.

As a starting point, ES & SAWDF are requesting that the GMA representatives make a GAM Run using S-3 pumping file and the methodology recently used by neighboring GMA-11 to establish a baseline for additional modeling. In the GMA-11 process, the results of a base simulation (Technical Memorandum 20-05[8]) was developed for the purpose. Based on the baseline and a desire to provide a steady pumping rate for use in regional water planning, GMA 11 ran an additional set of simulations that resulted in a constant pumping scenario for each county-river basin-aquifer unit in GMA 11. Technical Memorandum 21-01[9] Draft 2 reports on the development and results of the 33 iterations used to reach a constant pumping scenario[10] that would be expected to be sustained[11] if the model were

---

[6] TWDB used a 500-year time to estimate the maximum sustainable pumping level for the first adopted 2011 DFCs. June 13, 2012. Memorandum to TWD Board of Directors. SUBJECT: Briefing, discussion, and possible action on appeals of the reasonableness of the Desired Future Conditions adopted by the groundwater conservation districts in Groundwater Management Area 12 for the Sparta, Queen City, Carrizo-Wilcox, Calvert Bluff, Simsboro, Hooper, Yegua-Jackson, and Brazos River Alluvium aquifers, page 17.

[7] GMA-11 Explanatory Report cited herein predicts that 72% of the groundwater pumped will ultimately come from surface water sources (alluvium).

[8] Hutchison, William R, Ph.D., P.E., P.G. December 30, 2020. GMA 11 Technical Memorandum 20-05. Base Simulation for Joint Planning with Updated Groundwater Availability Model for the Sparta, Queen City, and Carrizo-Wilcox Aquifers

[9] Hutchison, William R, Ph.D., P.E., P.G. February 28, 2021. GMA 11 Technical Memorandum 21-01Draft 2. March 4, 2021. Adjusted Pumping Simulations for Joint Planning with Updated Groundwater Availability Model for the Sparta, Queen City, and Carrizo-Wilcox Aquifers.

[10] Note: This scenario did not include the protection of surface waters and resulted in a pumping quantity that sources 54% of the water from surface waters (Induced inflow from the alluvium). The final proposed DFCs sources 72% of the pumped water from surface waters.

[11] Per Hutchison: The result of the simulations is constant pumping from 2014 to 2080. Tables 2, 3, and 4 of the Tech Memo 21-01 show it tabular form (the last two columns show the results of Scenario 33) for each county-aquifer unit. This is in contrast to the Base Scenario that has several instances of pumping reductions from 2014 to 2070. Maybe your definition of "sustainable" pumping and my use of "constant" pumping are not the same thing. My definition of constant pumping is simply 2014 to 2080 as simulated for the joint planning process. Based on the model results, I believe that this level of pumping would remain unchanged if I kept running the model, although I have not actually run the model beyond 2080. There is no specific reason I can think of that would suddenly cause the pumping rate to drop if the model was run for any number of years.

run for a longer period of time. The process is discussed in GMA-11's Explanatory Report (Draft 2)[12]. All these GMA-11 documents are available on its public information[13] Google Drive.

To accomplish the objectives in criteria1 and 2 above -- sustainable manage while protecting the resilience of surface water through a drought of record and establish a conservation bookend -- different limitation would be placed on GAM Run 3. Rather than keeping pumping steady through the planning periods, as was done in GMA-11 to meet its objective, outflows to surface waters would be held constant at the 2011outflow rate[14] throughout the planning period by adjusting pumping in the districts. This will establish a conservation bookend to be used in balancing conservation and development relative to consideration #4 as DFCs are developed.

To accomplish the objective in criteria 3 above -- a methodology will need to be developed that estimate impacts on shallow domestic wells that places additional limitation on GAM Run 3.

[12] Hutchison, William R, Ph.D., P.E., P.G. February 28, 2021. Desired Future Condition Explanatory Report (Draft 2) Carrizo-Wilcox/Queen City/Sparta Aquifers for Groundwater Management Area 11.

[13] GMA-11 public information google drive https://drive.google.com/drive/folders/1ronw7ke38_lU4BHGEHbQQ0j9D7fYmFr?usp=sharing

[14] A gaining relationship to the aquifers.

Proposed AQUIFER DFCs and Measuring/Calculating Method

Please be as detailed as possible in describing your proposed DFC. Include the quantifiable value and a description of the method for measuring or calculating the value. Attach additional pages as needed.

Aquifer	Proposed DFC and Measuring/Calculating Method
Carrizo Aquifer	ES requests that the districts develop DFCs based on DFC Run 3 (New GAM) that are sustainable with respect to long-term management of the aquifer where the amount of pumping, whether or not permitted, is determined by a process that protects surface waters and exempt domestic wells.
Calvert Bluff Aquifer	ES requests that the districts develop DFCs based on DFC Run 3 (New GAM) that are sustainable with respect to long-term management of the aquifer where the amount of pumping, whether or not permitted, is determined by a process that protects surface waters and exempt domestic wells.
Simsboro Aquifer	ES requests that the districts develop DFCs based on DFC Run 3 (New GAM) that are sustainable with respect to long-term management of the aquifer where the amount of pumping, whether or not permitted, is determined by a process that protects surface waters and exempt domestic wells.
Hooper Aquifer	ES requests that the districts develop DFCs based on DFC Run 3 (New GAM) that are sustainable with respect to long-term management of the aquifer where the amount of pumping, whether or not permitted, is determined by a process that protects surface waters and exempt domestic wells.
Queen City Aquifer	
Sparta Aquifer	
Yegua-Jackson Aquifer	
Brazos Alluvium Aquifer	
Colorado Alluvium Aquifer	ES requests that the districts initiate the development of DFCs for this aquifer in anticipation of adopting such DFCs during the next planning cycle.

Consideration of Proposed Desired Future Condition(s)

The Texas Water Code requires that the GMA develop DFCs that "provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence in the management area." In the space below, or on additional attached pages, please provide your considerations with regard to the nine items that must be considered, per the Texas Water Code, for the proposed DFC(s).

CONSIDERATION 4 – "Other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water:"

Please see introductory letter to GMA-12 Representatives.

CONSIDERATION 7 – "The impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater:"

Please see introductory letter to GMA-12 Representatives.