

Appendix H
Written Comments Received on the Initially
Prepared Plan

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July 31, 2020

HDR, Attn: David D. Dunn, PE
750 Old Hickory Blvd.
Building 1, Suite 200
Brentwood, TN 37027-4528

RE: Brazos River Authority Comments for the 2021 Initially Prepared Brazos G Regional Water Plan

Dear Mr. Dunn:

The Brazos River Authority (BRA) appreciates the efforts of the Brazos G Regional Water Planning Group (Brazos G), the Texas Water Development Board (TWDB), and the many others that have contributed their time and resources in working to develop the 2021 Initially Prepared Brazos G Regional Water Plan (2021 IPP). The BRA is committed to working through the regional water planning process with our customers and other Brazos River basin stakeholders to address the challenges of meeting future water needs within the Brazos River basin.

We have reviewed the 2021 IPP and offer the attached suggestions and comments (Attachment A) for consideration in finalizing the 2021 Brazos G Regional Water Plan.

In addition to the attached comments, the BRA would also like to emphasize its position on several major points within the 2021 IPP. These include subordination of BRA supplies and comments that the TWDB provided to HDR, Inc. (HDR) regarding BRA water management strategies within the 2021 IPP, particularly with respect to the Lake Granger Augmentation strategy.

Subordination

The current 2021 IPP, as well as the previous 2016 Brazos G Regional Water Plan, assumes that BRA can subordinate its water supplies for certain recommended upstream reservoir projects. In some cases, the feasibility of these water management strategies is dependent upon a subordination agreement with BRA. As stated in previous correspondence from the 2016 planning cycle and earlier in the current cycle, existing water supplies of the BRA water supply system are fully contracted, so subordination agreements for these water management strategies may not be possible. BRA reiterates our previous requests that Brazos G and HDR include a caveat in each water management strategy that assumes a subordination agreement with BRA that clearly states that subordination may not be possible.

Lake Granger Augmentation

BRA continues to develop additional water supply in Williamson County with the installation and completion of a Trinity Aquifer groundwater supply well, located near the East Williamson County Regional Water Treatment Plant (EWCRWTP) at Lake Granger in 2018. The Trinity Aquifer well development represents the first phase of the Lake Granger Augmentation water management strategy that utilizes both groundwater and surface water to meet needs in



Williamson County. Based on comments from the TWDB, the representation of the Lake Granger Augmentation water management strategy cannot be accepted within the final 2021 Brazos G Regional Water Plan due to insufficient managed available groundwater availability within Williamson County. However, BRA would like to note that this strategy was recommended in both the 2011 and 2016 Brazos G Regional Water Plans. As such, BRA has been in the process of implementing this strategy over the last ten years and will continue to move forward with this important project for Williamson County.

Additionally, due to TWDB Regional Water Planning rules, it appears that in some cases viable water supply projects that produce actual supply and meet real demands cannot be included in the final Regional and State Water Plans as a “recommended strategy.” This results in beneficial strategies and projects being ineligible for State Participation funding, which is an unfortunate outcome that highlights a disconnect between TWDB Regional Water Planning rules and reality.

Comments from the TWDB regarding the use of additional groundwater from aquifers east of Williamson County as part of the second phase of the Lake Granger Augmentation strategy has caused re-evaluation of the Lake Granger Augmentation strategy. BRA recognizes the dilemma that HDR has with regard to the Lake Granger Augmentation strategy with respect to changes in the TWDB Regional Water Planning rules on use of managed available groundwater and the need for re-evaluation of this strategy. However, BRA was not provided this information in a timely manner and has not had adequate time to fully review the proposed re-evaluation of the Lake Granger Augmentation strategy.

Thank you again for the opportunity to provide comments on the 2021 IPP. The BRA looks forward to the completion of the 2021 Brazos G Regional Water Plan and continued participation in the regional water planning process. If you have any questions, please contact Aaron Abel, Water Services Manager, at 254-761-3175 or via email at aaron.abel@brazos.org.

Sincerely,

David Collinsworth
General Manager/CEO

Enclosure Attachment A

cc: Brazos G Chair, Wayne Wilson
Brazos G Administrator, Stephen Hamlin

Attachment A

Brazos River Authority Comments On 2021 Brazos G Initially Prepared Plan

Volume I, Chapter 4, Table 4.6. Page 4-13, Water Needs Projected for Wholesale Water Providers: Footnote 2 of this table refers to the water available and contracted per HB 1437, not HB 1763.

Volume I, Chapter 5, Section 5.7.5, Page 5.7-7, City of Gatesville: BRA recommends deletion of the text “The contracted supply volume is for 5,898 acft/yr; however, this contract is projected to be prorated and only provide a maximum of 4,902 acft/yr during the planning period.” BRA water supply agreements are firm commitments.

Volume I, Chapter 5, Section 5.17.5, Page 5.17-4, City of Cleburne: BRA recommends deletion of the following text in the second sentence in this section, “...and a contract with BRA that ranges from 2,971 acft/yr to 885 acft/yr at 2020 to 2070, respectively.” BRA water supply agreements are firm commitments.

Volume I, Chapter 5, Section 5.24.20, Page 5.24-15, City of McGregor: BRA recommends removing the following text from the first sentence... “and BRA from 518 to 473 acft/yr from 2020 to 2070, respectively.” BRA water supply agreements are firm commitments.

Volume I, Chapter 5, Section 5.18.5 - City of Stamford, Pg. 5.18-2: Recommended removing the text “and BRA at 809 to 1,209acft/yr.” The City has a contract with the BRA to compensate BRA for the reduction in yield of its System as the result of the City’s upstream diversion. BRA does not supply water to the City.

Volume I, Chapter 5, Section 5.38, Various locations: References of the BRA System Rate at \$76.50/acft is incorrect. The BRA System Rate for FY2020 is \$79.00/acft.
Page 5.38-18: Unit Cost needs to be updated in the following locations: 5.38.14 West Central Texas Municipal Water District, Water Supply Plan, a. BRA Systems Operation Supply, Unit Cost: \$79.00/acft, and in Table 5.38-19.

Volume I, Executive Summary, Page ES-13, and Volume II, Section 10.3: “Lake Whitney Hydropower Reallocation” should be renamed “Lake Whitney Reallocation” to be consistent with nomenclature in other references to Lake Whitney Reallocation in Volume I.

Volume I, Chapter 5, Section 5.38.13, Page 5.38-16 – Upper Leon River Municipal Water District: Second sentence under Description of Supply, the reference to WSD should be changed to MWD.

Volume II, Section 9.5.2, Page 9.5-3, Lake Belton to Lake Stillhouse Hollow Pipeline: The last sentence in the first paragraph under “Available Yield” states that, “The supply for this project is authorized under the existing BRA water right for Lake Belton and from the recently approved System Operation Permit.” BRA recommends to remove “...and from the recently approved System Operation Permit.” The Lake Belton to Lake Stillhouse Hollow Pipeline is authorized under BRA’s reservoir water rights at Lakes Belton and Stillhouse Hollow not the System Operation Permit.

Barry Mahler, Chairman
Marty H. Graham, Vice Chairman
Scott Buckles, Member
José O. Dodier, Jr., Member



David Basinger, Member
Tina Y. Buford, Member
Carl Ray Polk, Jr., Member
Rex Isom, Executive Director

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
Protecting and Enhancing Natural Resources for Tomorrow

June 18, 2020

Mr. Stephen Hamlin
Region G Administrator

Dear Mr. Hamlin;

For the past 2 years the Texas State Soil and Water Conservation Board (TSSWCB) has been participating in the Texas Water Development Board's (TWDB) Regional Water Planning meetings as directed by Senate Bill 1511, passed in the 2017 legislative session. We appreciate being included in the process and offer these constructive comments to the regional water plans and ultimately the State water plan. Attached you will find some specific comments to the Region G water plan as they pertain to the TSSWCB.

As you may know 82% of Texas' land area is privately-owned and are working lands, involved in agricultural, timber, and wildlife operations. These lands are important as they provide substantial economic, environmental, and recreational resources that benefit both the landowners and public. They also provide ecosystem services that we all rely on for everyday necessities, such as air and water quality, carbon sequestration, and wildlife habitat.

With that said, these working lands are where the vast majority of our rain falls and ultimately supply the water for all of our needs, such as municipal, industrial, wildlife, and agricultural to name a few. Texas' private working lands are a valuable resource for all Texans.

Over the years, the private landowners of these working lands have been good stewards of their property. In an indirect way they have been assisting the 16 TWDB's Regional Water Planning Groups in achieving their goals through voluntary incentive-based land conservation practices.

It has been proven over time if a raindrop is controlled where it hits the ground there can be a benefit to both water quality and water quantity. Private landowners have been providing benefits to our water resources by implementing Best Management Practices (BMP) that slow water runoff and provide for soil stabilization, which also slows the sedimentation of our reservoirs and allows for more water infiltration into our aquifers.

Some common BMPs include brush management, prescribed grazing, fencing, grade stabilization, irrigation land leveling, terrace, contour farming, cover crop, residue and tillage management, and riparian herbaceous cover.

The TSSWCB has been active with agricultural producers since 1939 as the lead agency for planning, implementing, and managing coordinated natural resource conservation programs for preventing and abating agricultural and silvicultural nonpoint sources of water pollution.

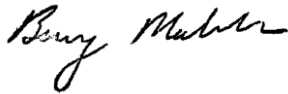
The TSSWCB also works to ensure that the State's network of over 2,000 flood control dams are protecting lives and property by providing operation, maintenance, and structural repair grants to local government sponsors.

The TSSWCB successfully delivers technical and financial assistance to private landowners of Texas through Texas' 216 local Soil and Water Conservation Districts (SWCD) which are led by 1,080 locally elected district directors who are active in agriculture. Through the TSSWCB Water Quality Management Plan Program (WQMP), farmers, ranchers, and silviculturalists receive technical and financial assistance to voluntarily conserve and protect our natural resources. Participants receive assistance with conservation practices, BMPs, that address water quality, water quantity, and soil erosion while promoting the productivity of agricultural lands. This efficient locally led conservation delivery system ensures that those most affected by conservation programs can make decisions on how and what programs will be implemented voluntarily on their private lands.

Over time, lands change ownership and many larger tracts are broken up into smaller parcels. Most new landowners did not grow up on working lands and therefore may not have a knowledge of land management techniques. The TSSWCB is writing new WQMPs for these new landowners who are implementing BMPs on their land. Education and implementation of proper land management and BMPs continues to be essential. Voluntary incentive-based programs are essential to continue to address soil and water conservation in Texas.

These BMPs implemented for soil and water conservation provide benefits not only to the landowner but ultimately to all Texans and our water supply.

Respectfully,



Barry Mahler
Chairman



Rex Isom
Executive Director

Attachment

Region G

- Page ES-4, Table ES-1
 - Under Interest Group, possibly should be under Non-Voting Member, Include Texas State Soil and Water Conservation Board (TSSWCB), Rusty Ray
- Page 1-5, Table 1-1. Current and Recent Brazos G RWPG Voting Members (concluded), Non-Voting Member
 - Include Texas State Soil and Water Conservation Board (TSSWCB), Rusty Ray



CITY OF CAMERON

100 S. Houston Avenue, P. O. Box 833
Cameron, Texas 76520

254-697-6646
254-697-3040 Fax

May 29, 2020

Brazos River Authority
Attn: Steve Hamlin
P.O. Box 7555
Waco, TX 76714-7555

Re: Public comment on the Initially Prepared 2021 Brazos G Regional Water Plan

Dear Mr. Hamlin:

The City of Cameron has received notification regarding the availability of the Initially Prepared 2021 Brazos G Regional Water Plan (IPP) and appreciates the efforts of the Brazos G Regional Water Planning Group in this important process. Through its own planning processes, the City has identified a need to relocate surface water intake and pump station facilities to a slightly upstream location to address concerns with channel migration. Therefore, we wish to offer public comment requesting inclusion of this Little River Pump Station project in the 2021 Brazos G Regional Water Plan as well as in the associated project prioritization process. The City of Cameron appreciates this opportunity to provide comment and looks forward to coordinating with you regarding the technical details of the project. Please contact me if you have any questions.

Sincerely,

Rhett Parker
City Manager



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Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

Carter P. Smith
Executive Director

August 25, 2020

Steve Hamlin
Brazos River Authority
P.O. Box 7555
Waco, TX 767144-7555

Re: 2021 Region G Brazos Initially Prepared Regional Water Plan

Dear Mr. Hamlin:

Thank you for seeking review and comment from the Texas Parks and Wildlife Department (TPWD) on the 2021 Initially Prepared Water Plan (IPP) for Brazos Region G, dated March 3, 2020. Water impacts every aspect of TPWD's mission to manage and conserve the natural and cultural resources of Texas. Although TPWD has limited regulatory authority over the use of state waters, it is the agency charged with primary responsibility for protecting the state's fish and wildlife resources. To that end, TPWD offers these comments intended to help avoid or minimize impacts from water management strategies (WMS) to state fish and wildlife resources and to more fully inform stakeholders and the public on potential impacts and benefits of proposed WMS on state fish and wildlife resources.

TPWD understands that regional water planning groups are guided by 31 Texas Administrative Code (TAC) §357 when preparing regional water plans. These water planning rules spell out requirements related to natural resource and environmental protection. Accordingly, TPWD staff reviewed the IPP with a focus on the following questions:

- Does the IPP include a quantitative reporting of environmental factors including the effects on environmental water needs and habitat?
- Does the IPP include a description of natural resources and threats to natural resources due to water quantity or quality problems?
- Does the IPP discuss how these threats will be addressed?
- Does the IPP describe how it is consistent with long-term protection of natural resources?
- Does the IPP include water conservation as a water management strategy?
- Does the IPP include Drought Contingency Plans?
- Does the IPP recommend any stream segments be nominated as ecologically unique?
- Does the IPP address concerns raised by TPWD in connection with the 2016 Water Plan?

The population of the Brazos G area is expected to reach 4.35 million by 2070 with the largest growth taking place along the I-35 corridor. Municipal and irrigation use is expected to increase by 65 percent (1.41 million acre-feet (ac-ft)), down from the 74 percent (1.48 million ac-ft) increase projected during the previous planning cycle. In 2017, total water use was 878,177 ac-ft, comprised of 51 percent surface water use and 49 percent

groundwater use. To satisfy future water demands, the IPP recommends new supplies totaling 459,890 ac-ft/year, an increase from nearly 400,000 ac-ft/year in the 2016 IPP.

GENERAL COMMENTS

The draft March 2020 IPP provides information on potential water quality and quantity concerns related to surface and groundwater and includes limited information on fish and wildlife resources, spring systems, and groundwater-surface water interactions in the region. Such information could be useful in understanding and describing the impacts of WMS on fish and wildlife resources in Region G. In addition, please note there have been recent updates (March 30, 2020) to the list of state-listed species, including species in Region G counties. We recommend that you review and update the document with the latest information that is available at:

https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/.

Please review and amend all tables on Endangered, Threatened, Candidate, and Species of Concern (e.g., Table 4.1-1 in Volume II) for each WMS for accuracy of species ranges and habitat descriptions. Several tables have species listed in areas they are not known to occur, misspellings, or missing habitat descriptions. The Fishes of Texas website has distribution lists and habitat descriptions for Texas fishes. TPWD staff are also available to assist with updating this information.

The draft IPP describes the springs in Region G as “few” (Volume 1, page 1-38). A more accurate description is few major and historical springs as documented by Brune (1981). The draft IPP goes on to define major springs as discharging greater than 1 cubic foot per second (cfs) and lists five springs over 1 cfs. As noted in the IPP, there are springs in Region G that flow less than 1 cfs that are vital to maintaining flows, water quality, and fish and wildlife habitat. A dataset is available at databasin.org that maps the springs of Texas and shows a large number of springs in Brazos Region G (<https://databasin.org/datasets/2400de0b78284e0fa44083e78824ff24>).

Region G water user group’s water conservation savings continue to increase over the planning cycle(s). The estimated annual water savings for the 2020 plan represents an increase over previous years (111,339 ac-ft/year). TPWD supports water conservation strategies—the most environmentally benign—, to help maintain environmental flows while minimally impacting the environment and to delay or eliminate the need for more environmentally damaging strategies. TPWD supports Region G’s goal of 140 gallons per capita per day (gpcd) for all entities, even if there are no unmet needs, and Williamson County’s water conservation goals of 120 gpcd to assist with their unmet needs.

WATER MANAGEMENT STRATEGIES

The Regional Water Planning Guidelines (31 TAC §357.34) require that each regional WMS include a quantitative evaluation of environmental factors including effects on environmental water needs, wildlife habitat, cultural resources, agricultural resources, and effect of upstream development of bays, estuaries, arms of the Gulf of Mexico. Environmental impacts associated with WMS are provided in general terms but in some

cases the lack of specificity underrepresents the threats to fish and wildlife. Where project impacts are described, a rating system of low, medium and high is used. This descriptor is made ambiguous and less useful in two ways. First, the methodology used to determine levels of impact (high, medium, low) are not described. Second, summaries of impacts change little between project descriptions seemingly not taking into account site-specific considerations. Water resource planners and the public would benefit from a more detailed description of threats posed by WMS as well as the characterization of the unique environmental challenges and opportunities inherent in each site and project. Below are a few examples where the threats to fish and wildlife resources could be better represented. These examples are organized by WMS and when appropriate reference individual projects or plan sections.

Wastewater Reuse

Though TPWD recognizes reuse as having relatively low environmental impacts, it is important to note return flows often provide a consistent instream flow, even when a portion is reused, that helps sustain aquatic habitats and biotic communities during drought. Table 3.2-10 in Volume II states that in general wastewater reuse produces instream flows. However, direct reuse strategies reduce instream flows by diverting water that would have otherwise been discharged to a water course. Please correct or further explain this apparent discrepancy.

Reservoirs

Construction and operation of reservoirs are important for storing water to meet water demand, provide water-based recreation, meeting hydropower demands, or for flood control purposes. However, reservoirs pose environmental threats since they inundate terrestrial habitats, trap sediments, alter water quality and flow regimes, block migration of aquatic organisms, and fragment the riverscape into shorter and shorter stream lengths that no longer support native fish and wildlife. Within the Brazos River system, existing dams and reservoir operations have had profound impacts on native fishes in both upstream and downstream directions. For example, significant reductions in the historical ranges (once throughout the Brazos River Basin) of Sharpnose Shiner and Smalleye Shiner (now limited to the Brazos River and its major tributaries upstream of Possum Kingdom Lake) are attributed primarily to reservoir construction and operation among other factors. Both species have been extirpated from the Double Mountain Fork upstream of Lake Alan Henry. The dramatic range reduction coupled with existing and future threats (including drought) led to the listing of these two prairie minnows as Endangered by the U.S. Fish and Wildlife Service (USFWS) in 2014 and by TPWD in 2020. The USFWS also designated the upper Brazos River and its major tributaries as Critical Habitat. These two fishes belong to the pelagic-broadcast spawning reproductive guild which require relatively long reaches of flowing river habitat to support annual spawning migrations, downstream drift of eggs and larvae, and recruitment. These prairie minnows as well as other fishes such as State Threatened Red River Pupfish and Chub Shiner, are emblematic of the unique and ecologically significant ecosystems supported by the upper Brazos River.

Further, proposed reservoir projects such as Brushy Creek, Cedar Ridge, Lake Creek, South Bend, Throckmorton, Coryell County Off-Channel Reservoir (OCR), and Red River OCR have the potential to further fragment and alter hydrology and water quality thereby negatively impacting fish and wildlife resources. To mitigate these negative impacts, TPWD recommends new reservoir projects be equipped with fish passage structures and multi-level outlet works capable of passing enough flows to support downstream natural flow regimes (i.e., subsistence, base and pulse flows) and water quality. For example, dam outlet works should allow for releases from various reservoir depths so that inflow and release water temperatures and quantities can be matched, as appropriate. To minimize adverse effects downstream, water should not be released from depths associated with poor water quality (e.g., low dissolved oxygen).

In section 6-1 of Volume I of the IPP, it is not clear how cumulative impacts to freshwater inflows in the Brazos River Estuary are quantified. The lowest control point in cumulative impacts analysis, the Brazos River at Richmond, stops short of the estuary and the basin's largest water users. How the cumulative impact of multiple projects of this type may reduce freshwater inflows is an important consideration in maintaining the health and productivity of the estuary and should be addressed in the plan.

South Bend Reservoir

South Bend Reservoir is a proposed on-channel reservoir located downstream of the confluence of the Brazos River and Clear Fork Brazos River. The proposed reservoir will potentially inundate 29,877 acres, impound an estimated 771,604 ac-ft of water, and inundate approximately 30 river miles of the Brazos River (including Critical Habitat for the Smalleye Shiner and Sharpnose Shiner) and 20 miles of the Clear Fork. The dam itself will span 2.8 miles of the Brazos River. While the draft IPP acknowledges that these two Endangered Species "potentially occur in the project area", it does not mention the inundation of Critical Habitat. TPWD respectfully requests this addition. Further, as outlined in Table 4.9-4 in Volume II, the draft IPP downplays impacts to fish and wildlife and natural resources by stating there will be negligible impacts for Environmental Water Needs and Habitat and low impact on Threatened and Endangered Species.

As discussed previously, reservoirs like South Bend Reservoir pose significant environmental threats. If constructed, South Bend Reservoir would stand to further fragment the Brazos River reducing the range of suitable habitat by eliminating the reach of the Brazos River downstream of the South Bend dam to Possum Kingdom Lake as well as all riverine habitat inundated by the impoundment. Upstream impacts are also very likely given that these two species no longer occur upstream of Lake Alan Henry located on the Double Mountain Fork Brazos River. The IPP should acknowledge these facts to ensure that all stakeholders and the public are fully aware of the consequences.

Cedar Ridge Reservoir

Pages 4.3-17 and -18 discuss Brazos water snake habitat and potential for survival in the proposed Cedar Ridge Reservoir on the Clear Fork Brazos River. While a population does exist in Possum Kingdom Lake, it is less clear that the habitat within Cedar Ridge Reservoir would be sufficient through time to support Brazos water snake populations. For example,

Cedar Ridge Reservoir modeled storage levels show significant fluctuations and long periods of reduced storage (see Figure 4.3-2) which may limit the ability of Brazos water snake to establish and maintain populations especially during a repeat of recent drought periods.

The cumulative effect of both proposed reservoirs, Cedar Ridge and South Bend, has the potential to substantially change the quality and quantity of water flowing into the Critical Habitat in the upper Brazos River and Possum Kingdom Lake which would increase the risk of Golden Algae blooms and increase salinities requiring more water treatment when used for public water supply.

Chloride Control Projects

Natural brine springs that feed the upper Brazos River and its major tributaries contribute to high chloride concentrations as well as stable environmental flows. Proposed chloride control projects by design alter natural salinity regimes, alter habitats, reduce connectivity, and can dewater downstream habitats. Natural brine springs play an important role in these prairie river ecosystems since they contribute a strong salinity gradient, structuring fish assemblages whereby only salt tolerant species such as State Threatened Red River Pupfish occur in high salinity headwater reaches. The IPP should acknowledge potential impacts of these strategies to the State Threatened Red River Pupfish as well as to the federal and state-listed Endangered Smalleye Shiner and Sharpnose Shiner and the designated Critical Habitat for these shiners. Other fishes emblematic of the upper Brazos River prairie stream ecosystem could also be impacted including State Threatened Chub Shiner.

INVASIVE AND EXOTIC SPECIES

In our 2016 Brazos G IPP comment letter dated August 14, 2015, TPWD requested that the Brazos G Regional Water Plan address zebra mussels and aquatic invasive species. TPWD again requests Region G address invasive and exotic species in the IPP and regional water plan and their potential impacts on WMS. The introduction of invasive exotic species can directly and/or indirectly impact native species, their habitats and associated ecosystem functions, recreational opportunities (e.g., anglers and boaters), public water supply and other water infrastructure negatively. In particular, the zebra mussel is an invasive freshwater mollusk that could affect water management by clogging intake structures and fouling pipelines, resulting in increased maintenance needs and potentially hazardous conditions for workers. The presence of zebra mussels also raises concerns with the transfer of water from affected waterbodies that may require mitigation to prevent transfer. The potential transport of zebra mussels and other invasive species via pipeline falls under Parks and Wildlife Code §66.007(n) and §66.0072(g).

To prevent the transmission of invasive species, TPWD recommends avoiding transport of water from water bodies where these species are known to occur, including rivers downstream of infested lakes. If this is unavoidable, effective mitigative measures should be considered and implemented for preventing the transfer of zebra mussels. TPWD regularly updates information on the TPWD website to clearly identify lakes with zebra mussels in Texas, as it is subject to change; this information can be found at

<https://tpwd.texas.gov/huntwild/wild/species/exotic/zebramusselmap.phtml>.

We acknowledge that the proposed Red River Off-channel Reservoir WMS (i.e., water from the Red River to Lake Ray Roberts then to Possum Kingdom Lake) includes the cost for the treatment of zebra mussel control. This WMS does set a good example for including cost estimates for individual WMS that involve transferring waters with invasive species. However, the potential to introduce zebra mussels between Ray Roberts and Possum Kingdom is not addressed. We would like to see more information regarding strategies that reduce potential impacts to uninfected waters in this WMS.

Discussions on environmental issues with proposed Lake Granger and Lake Georgetown ASR projects address plants, animals and historic concerns, but lack information about zebra mussel control and reduction of spread. Please address these issues in the IPP.

In summary, TPWD recommends that the Brazos G IPP address zebra mussels (and other aquatic invasive species), review the TPWD website for guidance, and coordinate with TPWD to identify areas with infestations in order to avoid or reduce the negative impacts from invasive, exotic or nuisance species on the State's natural resources, economy, and recreational activities.

AQUATIC RESOURCE RELOCATION PLANS

If a WMS requires a dewatering event, then an Aquatic Resource Relocation Plan (ARRP) and a relocation permit maybe required from TPWD. Providing this information in the final Regional Water Plan will help to ensure coordination and reduction of impacts to natural resources at the beginning of WMS planning. For example, in Volume II, page 3.2-9 (Implementation Issues) TPWD Sand, Shell, Gravel and Marl permit is mentioned. Adding the ARRP and relocation permit information provides a clear understanding for stakeholders and the public. For more information please visit:

https://tpwd.texas.gov/landwater/water/enviroconcerns/kills_and_spills/minimize.phtml

ECOLOGICALLY SIGNIFICANT STREAM SEGMENTS

TPWD continues to support regional water planning groups in recommending ecologically significant river and stream segments. The nomination of stream segments is an opportunity to demonstrate a regional commitment towards the long-term protection of natural resources. TPWD would support an update if Region G would find it beneficial in making a decision to recommend a river or stream segment as ecologically unique. New natural resources information is likely available for the river and stream segments TPWD has previously identified as well as for other segments not yet identified as candidates for the ecologically unique designation.

Please change the TPWD non-voting representative from Dan Opdyke to Jennifer Bronson Warren (Executive Summary and Table 1-1); Dr. Opdyke no longer works for TPWD. Please add David Young as an alternate non-voting representative for TPWD.

Mr. Steve Hamlin

Page 7 of 7

August 25, 2020

We appreciate the opportunity to provide these comments. While TPWD values and appreciates the need to meet future water supply demands, we must do so in a thoughtful and sound manner that ensures the ecological health of our state's aquatic and natural resources important for healthy economies and providing Texans with opportunities to recreate outdoors and connect with nature. If you have any questions, or if we can be of any assistance, please contact me at 512-389-8715 or Cindy.loeffler@tpwd.texas.gov. Thank you.

Sincerely,

Cindy Loeffler

Cindy Loeffler, Chief
Water Resources Branch

Cl:dy:jbw:kbm

Cc: Jennifer Bronson Warren, Coastal Fisheries Division, TPWD
David Young, Coastal Fisheries Division, TPWD

References

Brune, G. 1981. Springs of Texas. Volume 1. Branch-Smith, Ft. Worth, Texas.

Mr. Wayne Wilson, Chair
c/o Wilson Cattle Company
7026 East OSR
Bryan, Texas 77808

Mr. Stephen Hamlin
Brazos River Authority
4600 Cobbs Dr.
Waco, Texas 76710

Re: Texas Water Development Board Comments for the Brazos G (Region G) Regional Water Planning Group Initially Prepared Plan, Contract No. 1548301835

Dear Mr. Wilson and Mr. Hamlin:

Texas Water Development Board (TWDB) staff have completed their review of the Initially Prepared Plan (IPP) submitted by March 3, 2020 on behalf of the Brazos G Regional Water Planning Group (RWPG). The attached comments follow this format:

- **Level 1:** Comments, questions, and data revisions that must be satisfactorily addressed in order to meet statutory, agency rule, and/or contract requirements; and,
- **Level 2:** Comments and suggestions for consideration that may improve the readability and overall understanding of the regional water plan.

Please note that rule references are based on recent revisions to 31 Texas Administrative Code (TAC) Chapter 357, adopted by the TWDB Board on June 4, 2020. 31 TAC § 357.50(f) requires the RWPG to consider timely agency and public comment. Section 357.50(g) requires the final adopted plan include summaries of all timely written and oral comments received, along with a response explaining any resulting revisions or why changes are not warranted. Copies of TWDB's Level 1 and 2 written comments and the region's responses must be included in the final, adopted regional water plan (*Contract Exhibit C, Section 13.1.2*).

Standard to all planning groups is the need to include certain content in the final regional water plans that was not yet available at the time that IPPs were prepared and submitted. In your final regional water plan, please be sure to also incorporate the following:

<p style="text-align: center;">Our Mission</p> <p>To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas</p>	<p style="text-align: center;">Board Members</p> <p>Peter M. Lake, Chairman Kathleen Jackson, Board Member Brooke T. Paup, Board Member</p> <p>Jeff Walker, Executive Administrator</p>
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- a) Completed results from the RWPG's infrastructure financing survey for sponsors of recommended projects with capital costs, including an electronic version of the survey spreadsheet [31 TAC § 357.44];
- b) Completed results from the implementation survey, including an electronic version of the survey spreadsheet [31 TAC § 357.45(a)];
- c) Documentation that comments received on the IPP were considered in the development of the final plan [31 TAC § 357.50(f)]; and
- d) Evidence, such as a certification in the form of a cover letter, that the final, adopted regional water plan is complete and adopted by the RWPG [31 TAC § 357.50(h)(1)].

Please ensure that the final plan includes updated State Water Planning Database (DB22) reports, and that the numerical values presented in the tables throughout the final, adopted regional water plan are consistent with the data provided in DB22. For the purpose of development of the 2022 State Water Plan, water management strategy and other data entered by the RWPG in DB22 shall take precedence over any conflicting data presented in the final regional water plan [Contract Exhibit C, Sections 13.1.3 and 13.2.2].

Additionally, subsequent review of DB22 data is being performed. If issues arise during our ongoing data review, they will be communicated promptly to the planning group to resolve. Please anticipate the need to respond to additional comments regarding data integrity, including any source overallocations, prior to the adoption of the final regional water plans.

The provision of certain content in an electronic-only form is permissible as follows: Internet links are permissible as a method for including model conservation and drought contingency plans within the final regional water plan; hydrologic modeling files may be submitted as electronic appendices, however all other regional water plan appendices should also be incorporated in hard copy format within each plan [31 TAC § 357.50(g)(2)(C), Contract Exhibit C, Section 13.1.2 and 13.2.1].

The following items must accompany, the submission of the final, adopted regional water plan:

1. The prioritized list of all recommended projects in the regional water plan, including an electronic version of the prioritization spreadsheet [31 TAC § 357.46]; and,
2. All hydrologic modeling files and GIS files, including any remaining files that may not have been provided at the time of the submission of the IPP but that were used in developing the final plan [31 TAC § 357.50(g)(2)(C), Contract Exhibit C, Section 13.1.2, and 13.2.1].

The following general requirements that apply to recommended water management strategies must be adhered to in all final regional water plans including:

1. Regional water plans must not include any recommended strategies or project costs that are associated with simply maintaining existing water supplies or replacing existing infrastructure. Plans may include only infrastructure costs that are associated with volumetric increases of treated water supplies delivered to water

user groups or that result in more efficient use of existing supplies [31 TAC § 357.10(39), § 357.34(e)(3)(A), Contract Exhibit C, Sections 5.5.2 and 5.5.3]; and,

2. Regional water plans must not include the costs of any retail distribution lines or other infrastructure costs that are not directly associated with the development of additional supply volumes (e.g., via treatment) other than those line replacement costs related to projects that are for the primary purpose of achieving conservation savings via water loss reduction [§ 357.34(e)(3)(A), Contract Exhibit C, Section 5.5.3].

Please be advised that, within the attached document, your region has received a comment specifically requesting that the RWPG provide the basis for how the RWPG considers it feasible that certain water management strategies will actually be implemented by January 5, 2023 (see Level 1, Comment 1), especially for projects with long lead times. This comment is aimed at making sure RWPGs do not present projects in their plans to provide water during the 2020 decade that cannot reasonably be expected to be online, and provide water supply, by January 5, 2023. For project types whose drought yields rely on *previously stored water*, the 2020 supply volume should take into consideration reasonably expected accumulated storage that would already be available in the event of drought. The RWPG must adequately address this Level 1 comment in the final, adopted regional water plan, which might require making changes to your regional plan.

It is preferable that RWPGs adopt a realistic plan that acknowledges the likelihood of unmet needs in a near-term drought, rather than to present a plan that overlooks reasonably foreseeable, near-term shortages due to the inclusion of unrealistic project timelines. If a '2020' decade project cannot reasonably be expected to come online by January 2023, for example if a reservoir has not started the permitting process, it should be moved to the 2030 decade. Any potential supply gaps (unmet needs) created by moving out projects to the 2030 decade may be shown as simply 'unmet' in the 2020 decade or be shown as met by a 'demand management' strategy. Doing so will appropriately reflect the fact that some entities would likely face an actual shortage if a drought of record were to occur in the very near future despite projects (that may be included in the plan but associated with a later decade) that will eventually address those same potential shortages in future years.

It is imperative that you provide the TWDB with information on how you intend to address this comment and all other comments well in advance of your adoption the regional water plan to ensure that the response is adequate for the Executive Administrator to recommend the plan to the TWDB Board for consideration in a timely and efficient manner. Your TWDB project manager will review and provide feedback to ensure all IPP comments and associated plan revisions have been addressed adequately. Failure to adequately address this comment (or any Level 1 comment) may result in the delay of the TWDB Board approval of your final regional water plan.

Mr. Wayne Wilson
Mr. Stephen Hamlin
Page 4

As a reminder, the deadline to submit the final, adopted regional water plan and associated material to the TWDB is **October 14, 2020**. Any remaining data revisions to DB22 must be communicated to Sabrina Anderson at Sabrina.Anderson@twdb.texas.gov by **September 14, 2020**.

If you have any questions regarding these comments or would like to discuss your approach to addressing any of these comments, please do not hesitate to contact Jean Devlin at (512) 475-1529 or Jean.Devlin@twdb.texas.gov. TWDB staff will be available to assist you in any way possible to ensure successful completion of your final regional water plan.

Sincerely,

Jessica Zuba
Deputy Executive Administrator
Water Supply and Infrastructure

Date: 6/18/2020

Attachment

c w/att.: Mr. David Collinsworth, Brazos River Authority
Mr. David Dunn, HDR, Inc.

TWDB comments on the Initially Prepared 2021 Brazos G (Region G) Regional Water Plan.

Level 1: Comments, questions, and data revisions that must be satisfactorily addressed in order to meet statutory, agency rule, and/or contract requirements.

1. Volume II and the State Water Planning Database (DB22). The plan includes the following recommended water management strategies (WMS) by WMS type, providing supply in 2020 (not including demand management): 18 *groundwater wells & other*, two *aquifer storage and recovery*, 13 *other direct reuse*, six *new major reservoir*, two *conjunctive use*, and 24 *other surface water*, including the *Groesbeck minor reservoir*. **Strategy supply with an online decade of 2020 must be constructed and delivering water by January 5, 2023.**
 - a) Please confirm that all strategies shown as providing supply in 2020 are expected to be providing water supply by January 5, 2023. [31 § TAC 357.10(21); Contract Exhibit C, Section 5.2]
 - b) Please provide the specific basis on which the planning group anticipates that it is feasible that the two *aquifer storage and recovery*, six *new major reservoir*, two *conjunctive use*, and 24 *other surface water* WMSs will all actually be online and providing water supply by January 5, 2023. For example, provide information on actions taken by sponsors and anticipated future project milestones that demonstrate sufficient progress toward implementation. [31 § TAC 357.10(21); Contract Exhibit C, Section 5.2]
 - c) In the event that the resulting adjustment of the timing of WMSs in the plan results in an increase in near-term unmet water needs, please update the related portions of the plan and DB22 accordingly, and also indicate whether ‘demand management’ will be the WMS used in the event of drought to address such water supply shortfalls or if the plan will show these as simply ‘unmet’. If municipal shortages are left ‘unmet’ and without a ‘demand management’ strategy to meet the shortage, please also ensure that adequate justification is included in accordance with 31 TAC § 357.50(j). [TWC § 16.051(a); 31 § TAC 357.50(j); [31 TAC § 357.34(i)(2); Contract Exhibit C, Section 5.2]
 - d) **Please be advised that, in accordance with Senate Bill 1511, 85th Texas Legislature, the planning group will be expected to rely on its next planning cycle budget to amend its 2021 Regional Water Plan during development of the 2026 Regional Water Plan, if recommended WMSs or projects become infeasible, for example, due to timing of projects coming online.** Infeasible WMSs include those WMSs where proposed sponsors have not taken an affirmative vote or other action to make expenditures necessary to construct or file applications for permits required in connection with implementation of the WMS on a schedule in order for the WMS to be completed by the time the WMS is needed to address drought in the plan. [TWC § 16.053(h)(10); 31 TAC § 357.12(b)]

2. Section 2.3.9, Table 2.13. Major Water Provider (MWP) demands presented in Table 2.13 are not presented by category of use. Please report demands for MWPs by decade and category of use in the final, adopted regional water plan. *[31 TAC § 357.31(b); 31 TAC § 357.31(f)]*
3. Section 3.4, page 3-63. Table 3.9 represents groundwater availability, however values in Table 3.9 for most counties does not represent modeled available groundwater (MAG) volumes. For example, the MAG for the Trinity Aquifer, Bell County ranges from 9,267 ac-ft/yr in 2020 to 9,241 ac-ft/yr in 2070 and is presented as 3,984 ac-ft/yr in 2020 to 4,270 ac-ft/yr in 2070, in Table 3.9. In some cases, aquifers are listed for counties where those aquifers do not exist. Please update Table 3.9 with the correct MAG volumes for all counties and verify that aquifers exist where they are listed in the final, adopted regional water plan. *[31 TAC § 357.32(d)]*
4. Section 3.4.1, page 3-61, second paragraph and Table 3.9. The plan discusses the use of an approved MAG Peak Factor for the Carrizo-Wilcox aquifer in Brazos County; however, the values in Table 3.9 for the Carrizo-Wilcox Aquifer in Brazos County are not equal to MAG volumes with the MAG Peak Factor applied. Please update Table 3.9 with the correct MAG Peak Factor volumes for the Carrizo-Wilcox Aquifer in Brazos County. *[31 TAC § 357.32(d)(3)]*
5. Section 3.4, Table 3.9, pages 3-63 to 3-66. The groundwater availability values listed in Table 3.9 for the Carrizo-Wilcox Aquifer in Brazos County represent neither the unmodified MAG nor the availability with the MAG Peak Factor applied. Please update Table 3.9 to represent groundwater availability for the Carrizo-Wilcox Aquifer in Brazos County with the MAG Peak Factor applied, and also report the unmodified MAG volumes, in the final, adopted regional water plan. *[Contract Exhibit C, Section 3.6.1]*
6. Chapter 3, Table 3.9, pages 3-63 to 3-66, and Appendix B. The groundwater availability for aquifer areas with no desired future conditions (DFC) appear to be inconsistent with the source availability values presented in DB22. Additionally, some non-MAG volumes appear to be missing from Table 3.9, for example, the Brazos River Alluvium Aquifer in Bosque County. Please update Table 3.9 with groundwater availability consistent with DB22 in the final, adopted regional water plan. *[Contract Exhibit C, Section 3.5.2]*
7. Chapter 3, Table 3.9, pages 3-63 to 3-66, and Appendix B. It is not clear what groundwater availability methodologies have been utilized for aquifers with no DFCs. For example, Appendix B (page B-4) states availability for aquifers with no DFC "are based on results from groundwater modeling during the development of the MAGs for other aquifers", suggesting that the values of "not-relevant DFC compatible availability" from the MAG run were used. However, the availability values with Table 3.9 do not support confirmation of these methodologies. Please

clarify the methodologies utilized for aquifer areas with no DFCs in the final, adopted regional water plan. *[Contract Exhibit C, Section 3.5.2]*

8. Chapter 3. The plan does not appear to include the evaluation results of existing supplies for MWP. Please report existing supplies for MWP by decade and category of use in the final, adopted regional water plan. *[31 TAC § 357.32(g)]*
9. Chapter 3. Please include the methodology used to determine local surface water supplies and clarify whether the local surface water supplies are firm supplies under drought of record conditions in the final, adopted regional water plan. *[Contract Exhibit C, Section 3.2 and Section 3.7]*
10. Chapter 3 and Chapter 5 (Sections 5.13, 5.19, 5.22). Please provide justification for setting existing water supplies equal to demands during the planning period, for example Manufacturing, Hamilton County, County-Other, Kent County, and Aqua WSC, Lee County in the final, adopted regional water plan. *[Contract Exhibit C, Section 3.7 item 4]*
11. Appendix B, MAG tables. In some cases for counties which are split between more than one basin, the MAG totals in the MAG tables include the total for only one basin. In addition, for some aquifers, for example the Marble Falls and the Woodbine aquifers, the MAG totals appear to be incorrect. Please review the tables in Appendix B for each aquifer and county, verify the data presented, and update as necessary in the final, adopted regional water plan. *[31 TAC § 357.32(d)]*
12. Chapter 4. The plan does not appear to include identified water need volumes for MWPs reported by category of use including municipal, mining, manufacturing, irrigation, steam electric, mining, and livestock. Please report the results of the needs analysis for MWPs by categories of use as applicable in the region in the final, adopted regional water plan. *[31 TAC § 357.33(b)]*
13. Chapter 4. While the results of the secondary needs analysis is presented in Appendix A for WUGs, please add a discussion of this needs analysis to Chapter 4 or reference the current location in the final, adopted regional water plan. *[31 TAC § 357.33(e)]*
14. Chapter 4. The plan does not appear to include a secondary needs analysis for MWPs Please present the results of the secondary needs analysis by decade for MWPs in the final, adopted regional water plan. *[31 TAC § 357.33(e)]*
15. Chapter 5. The plan does not appear to discuss the region's assessment of significant water needs relating to the assessment of aquifer storage and recovery potential for meeting the identified significant water needs. Please include at a minimum, how the region determined the threshold of significant water needs for this requirement in the final, adopted regional water plan. *[TWC § 16.053(e)(10); 31 TAC § 357.34(h)]*
16. Volume II, Chapter 3. The plan in some instances appears to include infrastructure components that are not required to increase the volume of supply for the WUG but

are associated with internal distribution systems, which are ineligible per contract *Exhibit C, Section 5.5.3*. For example, but not limited to, page 3.3-5 states the North Reuse Project will include branch pipelines and page 3.7-2 states that Cleburne Reuse Project will serve future commercial developments. Please make clear in the plan that evaluations for all Reuse WMSs does not include reuse distribution lines directly to residences or commercial businesses in the final, adopted regional water plan. [*Contract Exhibit C, Section 5.5.3*]

17. Volume II, Section 9.5. Table 9.5-2 presents the available project yield for the Lake Belton to Lake Stillhouse Hollow Pipeline WMS as 30,000 ac-ft/yr, however the yield reported in DB22 is zero ac-ft/yr in all decades. The WMS appears to move existing supply to areas of need more efficiently and does not appear to make new supply available to any WUGs. Please clarify whether the WMS increases the volume of water supply delivered to WUGs. If so, the volume of water supply must be represented in DB22 in at least one planning decade. If not, the WMS must be removed as a recommended WMS from DB22, and the WMS evaluation must be presented in a separate section in the final, adopted regional water plan. [*31 TAC § 357.34(d)*]
18. Volume II, page 9.7-1 and DB22. The WMS evaluation for Somervell County Water Supply Projects, states that the strategy would be completed by 2035, yet supply in DB22 is shown online in 2030. Strategy supply must be assumed to come online and be providing water in or prior to the online decade year. Please reconcile all online decades accordingly in the final, adopted regional water plan. [*31 TAC § 357.10(21); Contract Exhibit C, Section 5.2*]
19. Volume II, Chapter 13. The plan does not include the WMS project costing tool's output report for any of the Miscellaneous WMSs in Chapter 13, or *analogously* present the capital cost for each project component. Please submit the costing tool's standardized cost output report or present capital cost estimates for each project component for each WMS evaluated in the final, adopted regional water plan. [*31 TAC § 357.34(f); 31 TAC § 358.3(21); Contract Exhibit C, Section 5.5.1*]
20. Volume II, Chapter 13. The plan does not appear to include technical evaluations for any of the WMS or projects presented in Chapter 13. Please include technical evaluations for each WMS evaluated in the final, adopted regional water plan. [*31 TAC § 357.34(a); 31 TAC § 357.34(e); Contract Scope of Work, Task 5A*]
21. Volume II and DB22. The plan includes WMS projects that appear to come online after the related WMS is initially online providing supply. For example, the Georgetown WTP Expansion WMS is reported to provide supply in 2020, however the related WMS project in DB22 on which it relies does not come online until 2030. For WMS projects that are the basis for a strategy to deliver water, please ensure that the project is associated with the initial decade, or earlier decade, that the dependent strategy is expected to deliver supply. In the event that the resulting adjustment of the timing of WMSs in the plan results in an increase in near-term

unmet water needs, please update the related portions of the plan and DB22 accordingly. *[31 TAC § 357.10(21); Contract Exhibit C, Section 5.2]*

22. Volume II. The plan, in some instances, does not appear to include pipe diameters, or pipe length information in some strategy evaluations costing report tables for example, Bell County WCID No.1 North Reuse Project. Please provide this information, if known, or remove the zeros from the costing outputs in the final, adopted regional water plan. *[Contract Exhibit C, Section 5.6]*
23. Volume II. The plan does not clearly state if or how a quantitative analysis of environmental flow needs was taken into account in calculation of yield for the following WMSs: Coryell County OCR (Vol. II Section 4.4), Lake Aquilla Reallocation (Vol. II Section 10.1), and Millers Creek Reservoir Augmentation (Vol. II Section 10.5). Please include a statement regarding how environmental flow criteria were considered in these strategy evaluations in the final, adopted regional water plan. Additionally, the Red River OCR (Vol. II Section 4.8), evaluation states that it was modeled in accordance with TCEQ environmental flow requirements; however, there are no Chapter 298 requirements for the Red River Basin. Please ensure that the evaluation for Red River OCR addresses environmental flows using the consensus criteria in the final, adopted regional water plan. *[31 TAC § 357.34(e)(3)(B); 31 TAC § 358.3(22); 31 TAC § 358.3(23)]*
24. Volume II. The plan does not appear to include quantitative evaluation of impacts for all environmental factors. For example, in Table 4.6-3. the Environmental Water Needs are reported as "Moderate impact". It is not clear what quantitative values are assigned for impacts to wildlife habitat, wetlands, threatened and endangered species, and cultural resources in this table. Additionally, not all of the "Environmental Issues" sections for each WMS appear to include a quantitative evaluation of all environmental factors, for example Table 9.2-1. Please include a quantitative reporting of environmental factors for all WMSs in the final, adopted regional water plan. *[31 TAC § 357.34(e)(3)(B)]*
25. Volume II. The plan, in some instances, does not appear to include a quantitative reporting of impacts to agricultural resources. For example, on page 4.11-20 of Volume II, in reference to the Turkey Peak Reservoir, the plan states, "some impacts are expected for agricultural land use" and in Table 4.11-3, Threats to Agricultural and Natural Resources are listed as "Low to None". Please include quantitative reporting of impacts, including impacts considered negligible, to agricultural resources for all WMS evaluations in the final, adopted regional water plan. *[31 TAC § 357.34(e)(3)(C)]*
26. Volume II, Section 7.1. The representation of the Lake Granger Augmentation WMS phases and data structure as entered DB22 appears to be inconsistent with how the WMSs is described in the plan. Please reconcile how the WMS and projects are described in the final, adopted regional water plan and presented in DB22. The MAG volume for recommended WMSs in the plan and in DB22 may not be over-drafted in any decade year. At the time of review, there did not appear to be sufficient MAG

availability in DB22 available for either phase of this WMS. Additionally, WMS supplies may not be presented as zero in all decades in the final, adopted regional water plan [31 § TAC 357.34(b); Contract Exhibit C, Section 3.5.4]

27. Volume II, Section 7.2 The evaluation of the Oak Creek Reservoir WMS indicates that the MAG will be exceeded in multiple years but does not appear to include a supporting 'peak factor' analysis to support short-term overdrafts. Please reconcile how the WMS and projects are described in the plan and presented in DB22 in the final, adopted regional water plan. The MAG volume for recommended WMSs in the plan and in DB22 may not be over-drafted in any decade year. At the time of review, there did not appear to be sufficient MAG availability in DB22 available for this WMS. Additionally, please ensure that the region has coordinated with Region F on the volume of water available through the Region F Oak Creek Reservoir Subordination WMS. [31 § TAC 357.34(b); Contract Exhibit C, Section 3.5.4]
28. Volume II, Sections 4.2, 4.7, and 4.10. Brushy Creek, Lake Creek, and Throckmorton reservoirs are presented as new, proposed major reservoirs in the plan and DB22, and the evaluations indicate these reservoir WMSs have not been implemented. These reservoirs are also represented as providing existing supply in DB22 as early as 2020. Existing supply must be physically and legally available to the WUG. Please revise the existing supply data as necessary, in the final, adopted regional water plan, if the WUGs are not currently receiving water from these sources, or clarify in the evaluations whether the WMSs are to expand an existing reservoir. [Contract Exhibit C, Section 5.2.1]
29. Volume II. Table 1.1-1. The plan appears to identify West Central Brazos Water Distribution System as a potentially feasible WMS, however the WMS does not appear to have been evaluated. Please document why this WMSs indicated as potentially feasible was not evaluated in the final, adopted regional water plan. [31 TAC § 357.34(a); Contract Scope of Work, Task 5A]
30. Volume II. The plan does not appear to include the documented process used by the planning group to identify potentially feasible WMSs, as presented to the planning group in accordance with 31 TAC § 357.21(b). Please include this information in the final, adopted regional water plan. [Contract Exhibit C, Section 5.1]
31. Volume II. The plan does not appear to include the process of selecting recommended WMSs and projects. Please include documentation of the process of selecting recommended WMSs and projects in the final, adopted regional water plan. [Contract Scope of Work, Task 5A subtask 5]
32. Volume II. Please include documentation of why seawater desalination and brackish groundwater desalination were not selected as recommended WMSs in the final, adopted regional water plan. [TWC § 16.053(e)(5)(j); Contract Exhibit C, Section 5.2; 31 § TAC 357.34(g)]

33. Chapter 6. Please include the TWDB Socioeconomic Impacts of Projected Water Shortages Report as an appendix to Chapter 6 rather than Chapter 4 in the final, adopted regional water plan. *[31 TAC § 357.40(a)]*
34. Chapter 6. Please provide a description of the impacts of the regional water plan on navigation in the final, adopted regional water plan. *[31 TAC § 357.40(b)(6)]*
35. Chapter 6. Please include a summary of unmet water needs identified in Chapter 6 rather than Chapter 4 of the final, adopted regional water plan. *[31 TAC § 357.40(c)]*
36. Section 7.5.3, page 7-72. The plan refers to Appendix H for copies of the Waco and Thrall model drought contingency plans, however Appendix H appear to be a placeholder for comments on the IPP. Please ensure that copies of the model drought contingency plans are included, or operational links to the model plans are included if they are to be included only by online reference in the final, adopted regional water plan. *[31 TAC § 357.42(j)]*
37. Chapter 7. The plan does not appear to include discussion of unnecessary or counterproductive variations in drought response strategies that may impede drought response efforts. Please include discussion of any unnecessary or counterproductive variations in drought response strategies that were identified by the planning group in the final, adopted regional water plan. *[TWC § 16.053(e)(3)(E); 31 TAC § 357.42(b)(2)]*
38. Chapter 7. The plan does not appear to state how the region addressed recommendations from the Drought Preparedness Council, provided to planning groups on August 1, 2019. Please include a discussion on how the planning group considered the Drought Preparedness Council recommendations in the final, adopted regional water plan. *[31 TAC § 357.42(h)]*
39. Chapter 7. The plan does not appear to include a discussion of recommendations to the Drought Preparedness Council or recommendations regarding the State Drought Preparedness Plan. Please include any such recommendations in the final, adopted regional water plan. *[31 TAC § 357.42(i)(3)]*
40. Section 8.2, pages 8-1 and 8-2. Please ensure that Section 8.2 is updated to clearly document which unique reservoir sites have been previously designated by the legislature; which are being recommended for designation by the RWPG; and whether the planning group is recommending that the legislature re-designate a previously designated unique reservoir site. *[31 TAC § 357.43(c); Contract Exhibit C, Section 8.2]*
41. Chapter 10. Please include a statement that indicates whether the planning group complied with all Texas Open Meetings Act and Public Information Act requirements in the final, adopted regional water plan. *[31 TAC § 357.21; 31 TAC § 357.50(f)]*

42. Chapter 11. Please provide a brief summary of how the 2016 Plan differs from the 2021 Plan with regards to recommended and alternative WMS *projects* in the final, adopted regional water plan. *[31 TAC § 357.45(c)(4)]*
43. Chapter 11. The plan does not appear to assess the progress of the regional water planning area in encouraging cooperation between water user groups for the purpose of achieving economies of scale and otherwise incentivizing strategies that benefit the entire region. Please provide a general assessment of these items in the final, adopted regional water plan. *[TWC § 16.053(e)(12); 31 TAC § 357.45(c)]*
44. Please remove use of the TWDB logo from the final, adopted regional water plan. In accordance with TWDB's Logo and Seal Policy, use of the TWDB logo requires an approved licensing agreement.
45. The GIS files submitted did not appear to include the locations of every recommended and alternative WMS project. Please include the locations of every recommended and alternative WMS project listed in the final, adopted regional water plan with the final GIS data submitted. *[Contract Exhibit C, Section 13.1.2]*
46. The WMS Project vector data was submitted across more than one shapefile/feature class for the same feature type. The vector data must be divided into point, line, and polygon feature types across a maximum of three shapefiles in a single folder or three feature classes in a single file geodatabase (one for each feature type). Please combine all feature classes in the 'Brazos_G_2021' GBD into a single feature class or shapefile for each feature type in the final GIS data submitted. *[Contract Exhibit D, Section 2.4.5]*

<p>Level 2: Comments and suggestions for consideration that may improve the readability and overall understanding of the regional water plan.</p>
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1. Section ES.5. The text refers the reader to Appendix L for details on Second-Tier needs, however Appendix L appears to include WAM files. Please correct the reference on page ES-14 as appropriate.
2. Table ES-2 refers to the DB17 Summary of Second-Tier Water Needs. Please ensure to refer readers to DB22 data. The DB22 Second-Tier Needs reports are currently included in the ES Appendix.
3. Section 1.12.1, page 1-50, first paragraph. The text appears to incorrectly reference Table 1-11. Please replace Table 1-11 reference with Table 1-12.
4. Section 1.12.1, page 1-50, second paragraph, last sentence. The text appears to incorrectly reference Table 1-12. Please replace Table 1-12 reference with Table 1-13.

5. Section 1.12.1, page 1-49, last paragraph discusses counties in Region G related to priority groundwater management areas that are in groundwater conservation districts. Please consider adding a reference to Figure 1-23: Groundwater Conservation Districts and Groundwater Management Areas Located Wholly or Partially within the Brazos G Area.
6. Section 1.12.1, page 1-51. Please replace the outdated term Managed Available Groundwater with Modeled Available Groundwater throughout the plan.
7. Chapter 3. As reuse is considered a separate water source, please consider presenting reuse in a separate section within Chapter 3.
8. Section 3.2.3, page 3-43. To assist with TWDB's review of surface water data, please consider providing more information about reservoir sedimentation considerations, such as sediment rate, data source, and method(s) for determining projected rating curves in the final plan.
9. Section 3.4.1, page 3-61, last paragraph. The text states that a reference for the source of groundwater availability estimates in Table 3.9 is included; however, no reference is listed. Please include the reference for the source of the groundwater availability estimates and consider including the MAG Peak Factor TWDB approval letter in the appendices of the final plan.
10. Appendix B. Citations for the model (GAM) used to determine the MAG for the Carrizo-Wilcox, Queen City and Sparta aquifers are listed as Dutton and others, 2003. The reference should be Kelley and others, 2004. Please update the citations for the GAM. Also, please list each of the authors for Kelley and others in the list of references rather than just "Kelley and others".
11. Section 4.1. Please consider moving the discussion of water supply allocation to Chapter 3.
12. Page. 4-3. Section 4.2 appears to refer to Appendix C for additional data on water needs, however Appendix C represents Water Rights data. Please correct the reference on page 4-3 as appropriate.
13. Consider reconciling the number of counties with projected irrigation needs presented in Volume II, Section 2.2.2 (20 counties) and Volume I, Section 4.2.5 (21 counties).
14. Volume II, Chapter 2 includes rainwater harvesting and reuse in the list of water conservation best practices measures. While the TWDB acknowledges that the municipal conservation best practices guide includes rainwater harvesting and reuse, for regional water planning purposes these practices are considered separate sources and should not be classified as conservation. Please consider clarifying this information within Volume II, Chapter 2 in the final, adopted regional water plan. *[Contract Exhibit C, Section 5.6]*

15. Volume II, Section 9.6. The header for the Lake Whitney Water Supply Project (Cleburne) includes an Error! message. Please update the header in the final plan.
16. Volume II, Chapter 12. Please consider clarifying more explicitly in the strategy evaluation for Brush Control, that it is *not* a recommended WMS, in the final, adopted regional water plan. *[31 TAC § 357.34(d)]*
17. The GIS files submitted for WMS projects do not adhere to the contractually required naming convention. Please rename the GIS files following the naming convention outlined in Exhibit D, Section 2.4.5 in the final GIS files submitted. *[Contract Exhibit D, Section 2.4.5]*
18. The GIS files submitted for WMS projects do not include minimum metadata requirements. Please include at a minimum, metadata about the data's projection, with the final GIS data submitted. *[Contract Exhibit D, Section 2.4.1]*
19. Appendix K appears to be a blank placeholder for DB22 reports, however the DB22 reports are included as part of the Executive Summary. Please remove Appendix K, if necessary, in the final plan.