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

1. Chapter 5 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): 24 groundwater wells & other, one other direct reuse, three aquifer storage and recovery, and three other surface water. **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 three aquifer storage and recovery, and three 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, do 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. [Texas Water Code § 16.053(h)(10); 31 TAC § 357.12(b)]
2. ES Appendix. The plan includes some DB22 reports that appear blank due to the region not having relevant data for these reports. Please provide a cover page to the DB22 report appendix indicating the reason for these report contents being blank.

3. Chapter 1. Please include a discussion of the current preparation for drought within the planning area in Chapter 1 of the final, adopted regional water plan. [31 TAC § 357.30(10)]

4. Chapter 3, page 3-7 and ES Appendix. The total existing water supplies presented in Table 3-2 appear to be inconsistent with existing supplies reported in DB22. For example, Table 3-2 shows a total of 62,846 acre-ft/year from 2020 to 2060 and 62,845 for 2070. DB22 reports the total existing supply as 61,578 acre-ft/year from 2020 to 2070. Please reconcile this information as necessary in the final, adopted regional water plan. [31 TAC § 357.32(e)]

5. Chapter 3, page 3-8, Table 3-3. Please revise the Table 3-3 header and column header from 'Wholesale Water Provider' to 'Major Water Provider' in the final, adopted regional water plan. [31 TAC § 357.32(g)]

6. Section 3.1.1, Table 3-4, page 3-11. Please update Table 3-4 to include Guadalupe Basin, Real County for the Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers. [Contract Exhibit C, Section 3.5.2]

7. Section 3.4, page 3-30. It is not clear what methodology was used to calculate direct reuse supplies discussed in Section 3.4. Please provide a more detailed explanation of the methodology used to calculate reuse supplies, including as relates to existing treatment capacity, in the final, adopted regional water plan. [Contract Exhibit C, Section 3.4]

8. Chapter 3. Please include a summary of the Water Availability Models (WAM) used, including any modification to the models approved by the TWDB’s Executive Administrative in the final, adopted regional water plan. The summary of WAM models used should include information on WAM version/date, WRAP version used for simulation, and the date of the simulation. [Contract Exhibit C, Section 3.2.1]

9. Chapter 4, page 4-4, Table 4-2. Please revise the Table 4-2 header and column header from 'Wholesale Water Provider' to 'Major Water Provider' in the final, adopted regional water plan. [31 TAC § 357.33(b)]

10. Page 4-5. The plan includes blank spaces for Table 4.3 (Second-Tier Identified Water Needs) and Table 4.4 (WUG Unmet Needs). Please either include this information or refer the reader to the applicable DB22 reports in the final, adopted regional water plan. Additionally, unmet needs should be presented in Chapter 6. [31 TAC § 357.33(e); 31 TAC § 357.40(c)]

11. Chapter 4. The plan does not appear to include a secondary needs analysis for major water providers (MWP). If the region does not include a separate table for Del Rio, please indicate where the reader can find the secondary needs for Del Rio (the
12. Section 5.2.5, page 5-10. Del Rio is identified as having significant water needs; however, the plan does not appear to provide a specific assessment of aquifer storage and recovery (ASR) for the identified needs for Del Rio. Please present information on the assessment of ASR for Del Rio in the final, adopted regional water plan. [TWC § 16.053(e)(10); 31 TAC § 357.34(h)]

13. Table 5-2 and Appendix 5A. Vegetative Management is presented in the plan as a recommended WMS with a zero supply yield in all decades in Table 5-2 and is included as the strategy evaluations J-13, J-29; J-44, J-70, J-71, J-78, J-87. Please remove Vegetative Management from the list of recommended WMSs, and present information on Vegetative Management in a separate section in the final, adopted regional water plan. [31 TAC § 357.34(d)]

14. Page 5A-3. The strategy evaluation for J-1 appears to describe a reuse WMS used for irrigation at a resort. These projects are not appropriate for inclusion in the regional water plans per Contract Exhibit C, Section 5.5.3. Reuse WMSs may not include distribution lines directly to residences or commercial businesses. Please ensure projects not required to increase the volume of water supply are omitted from the final, adopted regional water plan. [Contract Exhibit C, Section 5.5.3]

15. Pages 5A-4, 5A-16, and 5A-42. The evaluation for strategy J-28 states that in a severe drought, alluvial aquifers are the first to go dry and the evaluation for strategy J-75 states that reliability of supply is low to medium based on water quantity issues. Additionally, the evaluation for J-2 indicates a seasonal supply based on rainfall. Please remove these strategies from the final, adopted regional water plan since the IPP indicates that the strategy supplies presented in for strategy J-2, J-28, and J-75 will not be available as firm supplies under drought of record conditions. 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 § 357.34(b)]

16. Page 5A-26, Strategy J45, project 1. The plan does not appear to present separately the reservoir associated land costs. Please include separated reservoir-associated land costs or indicate land costs are not applicable to this strategy in the final, adopted regional water plan. [Contract Exhibit C, Section 5.5]

17. Page 5A-26, Strategy J-45, project 2. The plan indicates that the Kerr County Commissioners Court would negotiate diversion rights up to 6,000 acre-feet/year of water. Please clarify whether the region coordinated with Region L on the yield for this WMS, as the 2021 Region L IPP indicated a potential commitment of 2,000 acre-feet/year from Canyon Reservoir. After confirmation or coordination with Region L/GBRA, please adjust the anticipated yield, if necessary, in the final, adopted regional water plan to reflect the expected supply volume. 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 § 357.35(f)]

18. Page 5A-46. It is not clear from the evaluation for J-83 what reuse project components are included for this WMS. Please ensure that reuse WMSs do not include distribution lines directly to residences or commercial businesses and ensure projects not required to increase the volume of water supply are omitted from the final, adopted regional water plan. [Contract Exhibit C, Section 5.5.3]

19. Chapter 5B. The plan includes brush control and rainwater harvesting recommendations in the conservation recommendation subchapter. For planning purposes, these strategy types may not be considered demand reduction and must be presented separately from conservation, in addition, they are reported separately in DB22. Please remove the Vegetative Management and Rainwater Harvesting recommendations from the conservation subchapter in the final, adopted regional water plan. [31 TAC § 357.34(h); Contract Exhibit C, Section 5.10]

20. Chapter 5 and DB22. From the information presented in the plan, it is not clear that all required capital cost components were evaluated for each strategy. For example, capital costs should consider the following as applicable: construction costs, engineering and feasibility studies, legal assistance, financing, bond counsel and contingencies, permitting and mitigation, land purchase not associated with mitigation, easement costs, and purchases of water rights. Please clarify the cost elements considered in strategy evaluations in the final, adopted regional water plan. [Contract Exhibit C, Section 5.5]

21. Units costs reported in DB22 appear notably high for the City of Brackettville - Increase Supply to Spofford with New Water Line and Storage and the Val Verde County Other - Val Verde County WCID - Water Loss Audit and Main-Line Repair WMSs. For example, unit costs are reported as $153,214 per acre-foot in 2020 and 2030 for the City of Brackettville - Increase Supply to Spofford with New Water Line and Storage WMS, and unit costs are reported as $41,026 in 2020 and 2030 for the Val Verde County Other - Val Verde County WCID - Water Loss Audit and Main-Line Repair WMS. Please confirm that the calculated unit costs are correct in DB22 and that costs were considered in WMS recommendations in the final, adopted regional water plan. [31 TAC § 357.34(e)(2)]

22. Appendix 5A. The plan in several instances, for example, evaluations J-30, J-32, J-34, J-64, J-88, presents mining conservation strategies with zero costs and yet notes an assumption that there are strategy costs that are assumed to be paid back within a year. Please report the initial one-time costs for these strategies against which cost savings are based in the final, adopted regional water plan. [31 TAC § 357.34(e)(3)(A); Contract Exhibit C, Section 5.5]

23. Appendix 5A. The plan does not clearly state if or how TCEQ adopted environmental flow standards were taken into account in calculation of yield for the following WMSs: Acquire Surface Water Supply (J-5) and Eastern Kerr County Regional Water
Supply Project (J-45, Project 1). The evaluation for J-5 states that 7Q2 was used, however the Chapter 298 environmental flow standards for the San Antonio Basin should be used. If the diversion associated with J-45, Project 1 isn’t already permitted, Chapter 298 environmental flow standards should be used. Please clarify the application of environmental flow standards for these WMSs and reevaluate the WMSs using the required environmental standards if they were not applied 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. Chapter 5. The plan does not include the WMS project costing tool’s output report for projects 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; Contract Exhibit C, Section 5.7]

25. Chapter 5. The plan presents the documented process for identifying potentially feasible WMSs but 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]

26. Chapter 5. Please include documentation of why seawater desalination was not selected as a recommended WMS in the final, adopted regional water plan. [TWC § 16.053(e)(5)(j); Contract Exhibit C, Section 5.2; 31 TAC § 357.34(g)]

27. Chapter 5. It is not clear if third-party social and economic impacts resulting from voluntary redistributions of water, including impacts of moving water from rural and agricultural areas, were considered in the evaluation of potentially feasible WMSs. Please clarify how these impacts were considered (or clarify if there are no impacts) in the final, adopted regional water plan. [31 TAC § 357.34(e)(7)]

28. Chapter 6. The plan does not appear to include a description of third-party social and economic impacts resulting from voluntary redistributions of water, including analysis of third-party impacts of moving water from rural and agricultural areas. Please include this information (or clarify if there are no impacts) in the final, adopted regional water plan. [31 TAC § 357.40(b)(4)]

29. Chapter 6. Please include a description of major impacts of recommended WMSs on key parameters of water quality in Chapter 6 of the final, adopted regional water plan. [31 TAC § 357.40(b)(5)]

30. Chapter 6. The plan states that there are no identified unmet water needs in Chapter 5 (page 5-11), however data reported in DB22 shows unmet water needs for the following WUGs: Laughlin Air Force Base, County-other sub-WUGs: Bandera River Ranch 1, Lake Medina Shores, Center Point, Center Point Taylor System, Val Verde County-Other, and Livestock Kerr County, and Livestock Kinney County. Please reconcile this information and provide documentation that all potentially feasible
WMSs were considered to meet identified needs. Additionally, please include a summary of unmet water needs in Chapter 6 and provide an adequate justification of unmet needs for municipal WUGs as specified in rule and contract guidance, in the final, adopted regional water plan. [31 TAC § 357.40(c); 31 TAC § 357.50(j); Contract Exhibit C, Section 6.3]

31. Section 7.4, page 7-19. Please confirm whether the entities evaluated for emergency responses to local drought conditions or loss of municipal supply were assumed to have 180 days or less of remaining supply. [Contract Exhibit C, Section 7.4]

32. Section 7.5.3. Table 7-8 appears to include recommended drought triggers and actions; however, the table is blank for all columns associated with triggers. Please include specific drought response triggers in Table 7-8 in the final, adopted regional water plan. [31 TAC § 357.42(c)(1)]

33. Section 7.5.4, page 7-32. The plan does not appear to include copies of the model drought contingency plans as referenced in Attachment 7-1. Please include the model plans (two plans minimum) in the final, adopted regional water plan. [31 TAC § 357.42(j)]

34. Chapter 7. Model drought contingency plans were not provided for review. Please ensure that model drought contingency plans submitted with the final, adopted regional water plan at a minimum have triggers and responses to 'severe' and 'critical/emergency' drought conditions. [Contract Exhibit C, Section 7.6]

35. Page 7-33. Section 7.6 states that "The PWPG does not consider drought management as a feasible strategy to meet long-term growth in demands or current needs." However, Drought Management is presented as a recommended WMS for Bandera County-Other in Table 5-2 and as reported in DB22. Please reconcile this information as appropriate, including references the associated triggers to initiate each of the recommended drought management strategies, if any, throughout the final, adopted regional water plan. [31 TAC § 357.42(f)(2)]

36. Chapter 7. The plan does not appear to include a discussion of whether drought contingency measures have been recently implemented (for example, since the adoption of the last regional water plan) in response to drought conditions. Please include this information in the final, adopted regional water plan. [Contract Scope of Work, Task 7, subtask 3]

37. Chapter 10. The plan notes that all meetings were held in accordance with the Texas Open Meetings Act but does not discuss compliance with the Texas Public Information Act. Please address how the planning group complied with the Texas Public Information Act in the final, adopted regional water plan. [31 TAC §357.21; 31 TAC §357.50(f)]

38. Chapter 11, Table 11-1. The plan did not include implementation survey data collected to date. Please ensure that the template and data used for the implementation survey in the final, adopted regional water plan are based on the
survey template and data that the TWDB provided in June 2019. [31 TAC § 357.45(a)]

39. Chapter 11, Table 11-9. Please remove the Vegetative Management zero yield WMSs from Table 11-9. Additionally, 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(b)(4)]

**Level 2: Comments and suggestions for consideration that may improve the readability and overall understanding of the regional water plan.**

1. Page ES-9 references tables ES-2 through ES-6, however these tables do not appear to be in the plan. Please consider updates these table references.


3. Chapter 3. Please consider adding table numbers to the tables on pages 3-12 and 3-16.

4. Section 3.1, page 3-9. The study Occurrence of Significant River Alluvium Aquifers in the Plateau Region, 2010 does not appear to be linked on the Plateau RWPG’s webpage, as indicated on page 3-9. Please provide an active link to the webpage with the final plan.

5. Section 3.1.1, Table 3-4, page 3-11. For the groundwater availability methodology listed as "GMA9 Non-Relevant, TWDB modeled". Please consider clarifying which model runs were used and if this includes pumping from the associated modeled available groundwater run that was compatible with the DFC, which was provided to planning groups for consideration.

6. Page 3-11, Table 3-4. Please consider adding a source for the Austin Chalk Aquifer methodology presented.

7. Page 3-11, Table 3-4. Please consider revising the terminology of "hydraulic conductivity" to 'Annual availability" in reference to the Ellenburger/San Saba Aquifer.

8. Section 5.3.4, page 5-29. Please correct the first sentence that states, "Many of the recommended water management strategies listed in Error! Reference source not found.2 are...".

9. Section 5.3.5. Please consider including that all entities with 3,300 or more connections and/or a financial obligation with TWDB greater than $500,000 are also required to submit WCPs.

11. Page 5A-44. The plan states that the Oakmont Saddle Mountain WSC has applied to the TWDB for SWIFT funding for an additional well. To date, the TWDB has not received a SWIFT application from Oakmont Saddle Mountain WSC. Please reconcile this statement in the final plan.

12. Page 7-22. The plan states that this is the first cycle regional drought planning was required. Please consider updating this statement, as regional model drought contingency plans were required in the previous planning cycle.

13. 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]

14. The GIS files submitted for WMS projects do not include all of the required attribute fields listed in Table 1 of Exhibit D, Section 2.4.5. Please include the following attribute fields in all submitted WMS project GIS data: Project ID, Sponsor, Name, Location Description, Project Components, and Datum, with the final GIS files submitted. [Contract Exhibit D, Section 2.4.5]