

Texas Water Development Board

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Austin, TX 78711-3231, www.twdb.texas.gov
Phone (512) 463-7847, Fax (512) 475-2053

Mr. Kelley Holcomb, Chair
c/o Angelina & Neches River Authority
2901 N. John Reddit Dr.
Lufkin, Texas 75904

Mr. Jim Jeffers
City of Nacogdoches
P.O. Box 635030
Nacogdoches, Texas 75963

Re: Texas Water Development Board Comments for the East Texas (Region I) Regional Water Planning Group Initially Prepared Plan, Contract No. 1548301837

Dear Mr. Holcomb and Mr. Jeffers:

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 East Texas 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:

- 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];

Our Mission

To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas

Board Members

Peter M. Lake, Chairman | Kathleen Jackson, Board Member | Brooke T. Paup, Board Member
Jeff Walker, Executive Administrator

- 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.

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

Mr. Kelley Holcomb

Mr. Jim Jeffers

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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 Lann Bookout at (512) 936-9439 or Lann.Bookout@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 Pena Zuba

Digitally signed by Jessica Pena

Zuba

Date: 2020.06.15 19:15:28 -05'00'

Jessica Zuba
Deputy Executive Administrator
Water Supply and Infrastructure

Date: 6/15/2020

Attachment

c w/att.: Mr. Rex Hunt, Plummer

TWDB comments on the Initially Prepared 2021 East Texas (Region I) 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. 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): five *groundwater wells & other* and 15 *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 15 *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 3.1.4, Table 3.4, page 3-11. Please clarify why the firm yield (available supply, 1,874 ac-ft/yr) is greater than the permitted diversion (1,460 ac-ft/yr) for

Lake Center and whether/how the plan relies upon the greater amount in the final, adopted regional water plan. [31 TAC § 357.32(c)(1)]

3. Section 3.1.6, page 3-16. Please confirm whether the estimates of local surface water supplies are firm supplies under drought of record conditions and document this information in the final, adopted regional water plan. [31 TAC § 357.32(a); *Contract Exhibit C, Section 3.2*]
4. Section 3.2.1, Table 3.7, page 3-19. Desired future conditions (DFC) in Angelina County for the Queen City and Sparta aquifers are listed as 16 ac-ft for the Queen City Aquifer and not relevant due to size (NRS) for the Sparta Aquifer. GAM Run 17-024 shows that the DFC for Queen City Aquifer is NRS while the DFC for Sparta Aquifer is 16 ac-ft. Please update Table 3.7 to match GAM Run 17-024 in the final, adopted regional water plan. [31 TAC § 357.32(d)]
5. Section 3.2.2, Table 3.9, pages 3-21 to 3-23. Table 3.9 lists zero groundwater availability for Panola/Queen City/Sabine, Rusk/Sparta/Neches, Sabine/Queen City/Neches, Sabine/Queen City/Sabine, San Augustine/Queen City/Neches, San Augustine/Queen City/Sabine, Shelby/Queen City/Sabine, and Smith/Sparta/Neches. These aquifers do not exist in these geographic areas. Please remove these from Table 3.9 in the final, adopted regional water plan. [31 TAC § 357.32(d)]
6. Section 3.2.2, Table 3.9, pages 3-21 through 3-23. Non-relevant aquifers for Polk, Sabine, and Tyler counties are missing. Please include the non-relevant aquifers in Table 3.9 for Polk/Yegua-Jackson/Neches, Sabine/Gulf Coast/Sabine, and Tyler/Yegua-Jackson/Neches in the final, adopted regional water plan. [31 TAC § 357.32(d)]
7. Appendix 3-B. The documentation provided in Appendix 3-B (i.e., Water Availability Technical Memorandum) does not appear to summarize the Water Availability Model (WAM) analysis for the City of Beaumont (WR 4415) as mentioned in the IPP (last two sentences on page 3-11 and first three words on page 3-12) and approved in the region's hydrologic variance request. Please include this information in Chapter 3 or Appendix 3-B of the final, adopted regional water plan, [31 TAC § 357.32(c)(2)]
8. Section 4.4.1, page 4-11. The plan states that it is assumed that Lake Columbia will be completed by 2020. Page 5B-82 and page 5B-A-121 indicate Lake Columbia completion by 2030. Strategy supply with an online decade of 2020 must be constructed and delivering water by January 5, 2023. Given the Lake Columbia permit status and development timeline of a major reservoir, please revise the online decade of this technically feasible project to a realistic WMSP online timeframe (i.e., 2030) consistently throughout the final, adopted regional water plan. In the event that the adjustment of the timing of a WMS in the plan results in an increase in near-term unmet water needs, please update the related portions of

the plan and DB22 accordingly. *[TWC § 16.053(h)(10); Contract Exhibit C, Section 5.2]*

9. Chapter 5. Multiple WMS evaluations state that the implementation decade is 2020 and has a development timeline of 5 years (for example CENT-TOL (page 5-A-150), LNVA-WRR (page 5B-A-161)). Please reevaluate the 5 years reference and clarify that strategies presented as providing supply in 2020 will be constructed and delivering water by January 5, 2023. If necessary, please revise the initial supply decade to represent a more realistic timeframe in the final, adopted regional water plan. *[31 TAC § 357.10(21); Contract Exhibit C, Section 5.2]*
10. Chapter 5. The plan does not appear to include specific goals for gallons of water use per capita per day (GPCD) for municipal WUGs in the planning area for each decade. Please include specific goals by decade for each municipal WUG in the final, adopted regional water plan. This may be a specific GPCD, or ranges of GPCD; may be based on specific municipal WUGs, or groupings of municipal WUGs as determined appropriate by the RWPG. *[TWC § 16.053 (e)(11); 31 TAC § 357.34(i)(3)]*
11. Chapter 5. Please include documentation of why aquifer storage and recovery, 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)]*
12. Chapter 5 and Appendix 5B. The plan does not clearly state if or how environmental flow needs were taken into account in calculation of yield for the following WMSs: Permit Amendment for Houston County Lake (Strategy ID: HCWC-PA), Neches Run of River Strategies (UNM-LP, UNM-TS, UNM-GW), Angelina Run of River (ANRA-ROR), and Beaumont West Regional Reservoir (LNVA-WRR). Please provide this information in the final, adopted regional water plan. *[31 TAC § 358.3(22); 31 TAC § 358.3(23); 31 TAC § 357.34(e)(3)(B)]*
13. Section 5A.4.2, page 5A-16. The plan presents a screening process for aquifer storage and recovery (ASR) and notes seven entities with significant identified needs, however the plan does not appear to provide a specific assessment of ASR for the entities identified. Please provide the results of the screening process presented in Figure 5A.1 in the final, adopted regional water plan. *[TWC § 16.053(e)(10); 31 TAC § 357.34(h)]*
14. Section 5B.3.1., page 5B-82 and Appendix 5B-A. The ANRA-Run of River (submitted application/new application) WMSs are shown as providing supply for various mining needs in the plan however, there does not appear to be technical evaluation presented for this strategy. Please provide a technical evaluation for this strategy in the final, adopted regional water plan. *[31 TAC § 357.34(f)]*
15. Appendix 5A-A, page 5A-A-2 states that conservation will not be considered for steam electric power, livestock, or mining demands. Each of these water user group categories has identified needs and conservation must be considered for each need. Please document more clearly that conservation was considered, as required by

rule, for these specific needs in the final, adopted regional water plan. *[31 TAC § 357.34(i)(2)]*

16. Appendix 5B-A, page 5B-A-127. The evaluation for ANRA-WTP indicates a supply of zero acre-feet per year, however page 5B-86 indicates the ANRA-WTP WMS will supply up to 22,232 acre-feet per year. Please reconcile this information in the final, adopted regional water plan. *[31 TAC § 357.34(d)]*
17. Appendix 5B-A and 5B-B. The plan appears to combine the environmental factors (i.e. environmental water needs, wildlife habitat, cultural resources, and effect of upstream development on bays, estuaries, and arms of the Gulf of Mexico) into the term "Environmental Factors". It is not clear how the overall environmental factor score for quantifying impacts is determined. Please clarify what methodology, formula or other means, is used to calculate the overall environmental factor score in the final, adopted regional water plan. *[31 TAC § 357.34(e)(3)(B)]*
18. Appendix 5B-B. It is not clear where recreational impacts are considered in the WMS analysis Evaluation Matrix Rating Criteria. Please clarify whether this factor is analyzed for WMS impacts in the final, adopted regional water plan. *[31 TAC § 357.34(e)(10)]*
19. Section 6.1.1, page 6-2 describes ratings for "Major Impacts on Key Water Quality Parameters", however these ratings do not appear to match the ratings described in "Evaluation Matrix Rating Criteria" (Appendix 5B-B, page 5B-B-5). Please reconcile these ratings and definitions in the final, adopted regional water plan. *[31 TAC § 357.34(e)(8)]*
20. Section 6.1.2, page 6-2 describes ratings for "Threat to Agricultural Resources/Rural Areas", however these descriptions do not appear to match the ratings described in "Evaluation Matrix Rating Criteria" (Appendix 5B-B, page 5B-B-5). Please reconcile these ratings and definitions in the final, adopted regional water plan. *[31 TAC § 357.34(e)(7)]*
21. Section 6.3, page 6-5. The plan states that there are no unmet needs, municipal or non-municipal, included in the 2021 Plan, however data reported in DB22 shows unmet need of one acre-foot per year in Manufacturing, Jefferson County. Please reconcile this information in the final, adopted regional water plan. *[31 TAC § 357.40(c)]*
22. Section 7.3, page 7-17. The plan states that TWDB guidance requires existing major water infrastructure facilities to be collected confidentially and separately from the 2021 Plan and does not include a list of existing emergency interconnects. TWDB guidance states that location and detailed facility information should be kept separate from the plan. Please include, at a minimum, a description of the methodology used to collect the information, and the number of existing and potential interconnects including who is connected to who, in the final, adopted regional water plan. *[31 TAC § 357.42(d); Contract Exhibit C, Section 7.3]*

23. Section 7.8.1, page 7-49, last sentence. The plan appears to state how the region addressed recommendations the Drought Preparedness Council provided for the 2016 RWP. Please indicate how the region addressed the Drought Preparedness Council's recommendations provided to planning groups on August 1, 2019 and noted in the 2nd bullet of Section 7.8.1. [31 TAC § 357.42(h)]
24. Chapter 7. The plan does not appear to include a discussion of whether drought contingency measures have been recently implemented (for example, since 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]
25. Section 8.1, Page 8-1, page 8-2, and page 8-6. This section appears to include outdated information, including reference to a draft Texas Parks and Wildlife report, TWDB recommended stakeholder committee, and reference to action taken at the January 2015 Region I meeting. The TPWD ecologically significant stream segment information appears to be in final form on their website. Please confirm status of information referenced and update as appropriate in the final, adopted regional water plan. [31 TAC § 357.43(b)]
26. Section 10.3. 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)]
27. Section 11.1, page 11-1. The plan states that "this is the first year a plan will have water management strategy projects...", however WMS projects were included in the 2016 regional water plan. Please correct this statement in the final, adopted regional water plan [31 TAC § 357.45(a)]
28. Section 11.2.2, page 11-4. The plan appears to include the comparison of drought of record information from the 2016 regional water plan. Please update this information as necessary for the final, adopted regional water plan. [31 TAC § 357.45(c)(2)]
29. 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)]
30. Appendix 11-A. It appears that the implementation survey in the plan uses the template from the 2016 regional water plan. Please ensure that the template and data used for the implementation survey are based on the survey template and data that the TWDB provided in June 2019 for this current planning cycle. [31 TAC § 357.45(a)]
31. Chapter 11. The plan does not appear to indicate the progress of the planning group in encouraging cooperation between water user groups to achieve economies of

scale and otherwise incentivize strategies that benefit the entire region. Please include this information in the final, adopted regional water plan. *[TWC § 16.053(e)(12)]*

32. Appendix ES-A. The plan appears to be missing DB22 report #18, Recommended Water Management Strategies Requiring a New or Amended IBT Permit. Please include a copy of this report in the final, adopted regional water plan. *[Contract Scope of Work, Task 10, subtask 11]*
33. Appendix ES-A. 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 or note on the DB22 report table of contents indicating the reason for these report contents being blank. *[Contract Exhibit C, Section 13.1.2]*

<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. Page 1-12, Section 1.3.1, fourth paragraph, second sentence. The text states the Gulf Coast Aquifer provides water to all or parts of 10 counties in the ETRWPA however data reports indicate that eight (8) counties within the ETRWPA receive supply from the Gulf Coast Aquifer. Please consider revising as appropriate in the final plan.
2. Section 1.3.1. Please consider adding a reference source for the average total pumping values presented for each aquifer in the region.
3. Page 1-17, last full paragraph, first sentence. The sentence states that the ETRWPA encompasses GMAs 11 and 14. Please consider updating the text to state that the ETRWPA includes portions of GMAs 11 and 14.
4. Page 3-1, third paragraph and page 3-5, Figure 3.4. The text on page 3-1 says "approximately 11% of the total freshwater supply is groundwater"; however, Figure 3.4 shows that approximately 12% of the freshwater supply is groundwater. Please consider revising the text or figure accordingly.
5. Page 3-5. The text says "slightly more than 549,000 ac-ft per year, however, it should say "slightly less than 549,000 ac-ft" based on the values presented in Table 3.1. Please consider revising the text in the final plan.
6. Page 3-18, Figure 3.5, and page 1-18, Figure 1.9, and Section 1.3.1, page 1-16. Deep East Texas Groundwater Conservation District (GCD) and Anderson County GCD are included in the Figure 3.5. Please exclude these GCDs from the figure as these GCDs no longer exist.
7. Page 3-19, 1st paragraph. Please consider correcting the reference "Error!Reference source not found" in the final plan.

8. Page 3-24, Table 3.10. The first sentence states that Table 3.10 presents the total MAG volumes by aquifer for planning years 2020 through 2070, however Table 3.10 only includes the volumes for the year 2020. Please consider adjusting the text or table so they agree.
9. Page 3-24, Table 3.10. The first column is named "Region," but the cells below are filled with the word "Total." Please consider correcting the cells with the word "Total" to either "Northern" or "Southern" as best fits the region.
10. Chapter 3, page 3-9. Please consider revising the title for Section 3.1.4 to "Reservoir Water Availability".
11. In Appendix 3-B last sentence in first paragraph references Appendix 3-D. This appears to be a typo. Please correct the typographical error in the final plan.
12. In Appendix 3-B, the last sentence in the first paragraph references Appendix 3-D. This appears to be a typo. Please correct the typographical error in the final plan.
13. Chapter 5B, page 5B-54 includes conservation strategies for New London in the last two tables, yet the table on page 5B-55 states "none" for New London's recommended WMSs. Please reconcile the tables in the final water plan
14. Please consider reconciling the following statements which appear contradictory:
 - a) Appendix 5B-A-181 has the statement: "Based on current contracts and the available supplies from the Neches Basin WAM, the UNRMWA shows a small shortage during the planning period for Lake Palestine supplies. UNRMWA does not think the shortages to be real as the shortage is primarily associated with the reduced firm yield of Lake Palestine due to projected sediment accumulation in the lake. UNRMWA believes that the storage-area-elevation curves used in the Water Availability Models are severely under-predicting the storage volumes available in various parts of the lake. Therefore, UNRMWA believes that the lake yield is much larger than what is projected by the Water Availability Models."
 - b) Appendix 5B-A-178 has the statement: "The supply for this strategy represents City of Tyler's contract with Upper Neches River Municipal Water Authority for 67,200 ac-ft per year supplies from Lake Palestine. City of Tyler has transmission capacity to access half of the supplies and plans to develop this recommended strategy to access the other half. The reliability of this water supply is not considered high due to reduction in Lake Palestine yield due to sedimentation issues."
15. Section 5.B.3.16, page 5B-123. Please consider including a discussion of the basis for why the UNRMWA "believes" that the WAMs "underpredict the storage volumes available in various parts of the lake".

16. Appendix 5A-A, page 5A-A-2 states that 140 GPCD is the TWDB recommended goal for municipal users. Please correct this statement, which is a recommendation by the Texas Water Conservation Implementation Task Force, not a TWDB recommendation.
17. Alternating page numbers in Appendix 5B-A are "Appendix4-A" and "Appendix 5B-A". Please consider revising in the final plan.
18. Appendix 5B-A, page 5B-A-1, 2nd paragraph references the *Exhibit C, First Amended General Guidelines for Regional Water Planning Development – October 2012*. Please update this reference to the current version of Exhibit C under contract: *Exhibit C, Second Amended General Guidelines for Fifth Cycle of Regional Water Plan Development – April 2018*.
19. Appendix 5B-A, page 5B-A-7 states that the plan used the Texas Water Development Board Water Availability Models. Water Availability Models are maintained by the Texas Commission on Environmental Quality. Please consider correcting this information in the final plan.
20. Appendix 6-A. Please consider updating the Texas Administrative Code matrix to reflect updated rule references, based on amendments to 31 TAC Chapter 357 adopted by the TWDB Board on June 4, 2020.
21. Chapter 8, Section 8.1, Page 8-1, 4th paragraph contains a footnote reference that does not appear until page 8-15 and appears to be an incorrect reference to the footnoted material. Please consider revising in the final plan.
22. The GIS files submitted for WMS projects do not include the minimum required metadata. Please include at a minimum, metadata about the data's projection, with the final GIS data submitted. *[Contract Exhibit D, Section 2.4.1]*

DRAFT Prioritization of Recommended Water Management Strategies

			MAXIMUM SCORES --->		Criteria 1 - Decade of Need for Project			
			Rural/Agricultural Conservat	Conservation/Reuse?	10	10	20	400
Project Name	Project Sponsor Entity	Capital Cost			Uniform Standard 1A - What is the decade the RWP shows the project comes online? [2070 = 0 points; 2060 = 2; 2050 = 4; 2040 = 6; 2030 = 8; 2020 = 10]	Uniform Standard 1B - In what decade is initial funding needed? [2070 = 0 points; 2060 = 2; 2050 = 4; 2040 = 6; 2030 = 8; 2020 = 10]	Criteria 1 Total Score	Weighted Criteria 1 Total
SHEL-LTK Infrastructure	LIVESTOCK, SHELBY	\$ 18,582,000	N	N	10	10	20	400
Southern Utilities Conservation	SOUTHERN UTILITIES	\$ 33,264,000	N	Yes, conservation	10	10	20	400
UNM-ROR-NECHES RUN OF RIVER INFRASTRUCTURE	UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY	\$ 518,977,000	N	N	8	10	18	360
JASP - Livestock - Transfer from LNVA	LIVESTOCK, JASPER	\$ -	N	N	10	10	20	400
ANRA-COL - LAKE COLUMBIA CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 402,862,000	N	N	8	10	18	360
Sand Hills WSC - SRA Transfer	SAND HILLS WSC	\$ -	N	N	10	10	20	400
JEFF-MFG INFRASTRUCTURE	MANUFACTURING, JEFFERSON	\$ 435,726,000	N	N	8	10	18	360
NACW - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, NACOGDOCHES	\$ 26,677,000	N	N	8	8	16	320
San Augustine Livestock	LIVESTOCK, SAN AUGUSTINE	\$ 41,302,000	N	N	8	8	16	320
SMTH-CYS - Infrastructure	CRYSTAL SYSTEMS TEXAS	\$ 2,531,000	N	N	6	10	16	320
SMTH-LDL-Infrastructure	LINDALE	\$ 7,592,000	N	N	8	8	16	320
JEFF-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, JEFFERSON	\$ 32,302,000	N	N	8	10	18	360
PANL - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, PANOLA	\$ 1,172,000	N	N	8	8	16	320
SMTH-BLD-Infrastructure	BULLARD	\$ 14,264,000	N	N	8	10	18	360
SAUG - San Augustine - New Groundwater Wells Infrastructure	SAN AUGUSTINE	\$ 1,055,000	N	N	8	8	16	320
Port Arthur	PORT ARTHUR	\$ 51,618,000	N	Yes, conservation	10	10	20	400
NACW - D&M WSC - New Groundwater Wells Infrastructure	D & M WSC	\$ 4,567,000	N	N	6	6	12	240
Orange Irrigation	IRRIGATION, ORANGE	\$ 14,624,000	N	N	8	10	18	360
RUSK/SMTH - Overton - New Groundwater Wells Infrastructure	OVERTON	\$ 8,914,000	N	N	8	8	16	320
RUSK - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, RUSK	\$ 283,000	N	N	6	6	12	240
Cushing Conservation	CUSHING	\$ 1,030,000	N	Yes, conservation	10	10	20	400
NACP-COL	NACOGDOCHES	\$ 50,754,000	N	N	8	10	18	360
Crystal Systems Conservation	CRYSTAL SYSTEMS TEXAS	\$ 954,000	N	Yes, conservation	10	10	20	400
LNVA-JEFF - Beaumont West Regional Reservoir	LOWER NECHES VALLEY AUTHORITY	\$ 37,538,000	N	N	8	10	18	360
RUSK-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, RUSK	\$ 30,008,000	N	N	8	8	16	320
SMTH-MFG-Infrastructure	MANUFACTURING, SMITH	\$ 6,198,000	N	N	8	8	16	320
LUFK-RAY PHASE 1	LUFKIN	\$ 78,220,000	N	N	8	8	16	320
ANGL-MIN-INFRASTRUCTURE	MINING, ANGELINA	\$ 7,927,000	N	N	8	10	18	360
CHER-MIN-INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 7,013,000	N	N	8	10	18	360
HDSN - Mining - New Groundwater Wells Infrastructure	MINING, HENDERSON	\$ 201,000	N	N	8	10	18	360
TYL-PAL - PALESTINE INFRASTRUCTURE	TYLER	\$ 111,190,000	N	N	8	8	16	320
Henderson Conservation	HENDERSON	\$ 9,900,000	N	Yes, conservation	10	10	20	400
Nacogdoches Conservation	NACOGDOCHES	\$ 27,720,000	N	Yes, conservation	10	10	20	400
Tyler Conservation	TYLER	\$ 58,766,000	N	Yes, conservation	10	10	20	400
San Augustine Conservation	SAN AUGUSTINE	\$ 2,297,000	N	Yes, conservation	10	10	20	400
CHER - Alto Rural WSC - New Groundwater Wells Infrastructure	ALTO RURAL WSC	\$ 2,426,000	N	N	4	4	8	160
NACW-MIN-Infrastructure	MINING, NACOGDOCHES	\$ 18,647,000	N	N	8	8	16	320
ANRA-GW-NEW GROUNDWATER WELLS INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 29,775,000	N	N	8	10	18	360
CENT-REU-PIPELINE FROM WWTP TO LAKE CENTER	CENTER	\$ 18,110,000	N	Yes, reuse	8	10	18	360
RUSK-MIN	MINING, RUSK	\$ 14,808,000	N	N	8	8	16	320
LAKE-STRIKER-DREDGING	ANGELINA NACOGDOCHES WCID #1	\$ 23,716,000	N	N	6	8	14	280
LNVA-SRA Infrastructure	LOWER NECHES VALLEY AUTHORITY	\$ 529,606,000	N	N	6	8	14	280
Jasper Conservation	JASPER	\$ 15,444,000	N	Yes, conservation	10	10	20	400
ANRA-WTP-WTP CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 117,250,000	N	N	10	10	20	400
CHER/RUSK - Wright City WSC - New Groundwater Wells Infrastructure	WRIGHT CITY WSC	\$ 2,361,000	N	N	4	4	8	160
JACK-COL	JACKSONVILLE	\$ 29,390,000	N	N	6	8	14	280
LUFK-RAY PHASE 2	LUFKIN	\$ 78,199,000	N	N	6	6	12	240
SAUG-MIN-INFRASTRUCTURE	MINING, SAN AUGUSTINE	\$ 42,807,000	N	N	8	8	16	320
HDSN - Moore Station - New Groundwater Wells Infrastructure	MOORE STATION WSC	\$ 1,417,000	N	N	2	2	4	80
LUFK-RAY PHASE 3	LUFKIN	\$ 8,834,000	N	N	4	4	8	160
CENT-TOL-TOLEDO BEND TO CENTER	CENTER	\$ 38,916,000	N	N	6	8	14	280
JEFF-CTR INFRASTRUCTURE	COUNTY-OTHER, JEFFERSON	\$ 21,665,000	N	N	2	2	4	80
Whitehouse-Transfer from Tyler	WHITEHOUSE	\$ 7,666,000	N	N	2	2	4	80
HOU - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, HOUSTON	\$ 399,000	N	N	0	0	0	0
CHER - Rusk - New Groundwater Wells Infrastructure	RUSK	\$ 2,361,000	N	N	0	2	2	40
HDSN - Chandler - New Groundwater Wells Infrastructure	CHANDLER	\$ 1,397,000	N	N	0	0	0	0
RUSK - Jacobs WSC - New Groundwater Wells Infrastructure	JACOBS WSC	\$ 1,795,000	N	N	0	0	0	0

DRAFT Prioritization of Recommended Water Management Strategies

			Criteria 2 - Project Feasibility					
			5	5	10	5	25	100
Project Name	Project Sponsor Entity	Capital Cost	Uniform Standard 2A - What supporting data is available to show that the quantity of water needed is available? <i>[Models suggest insufficient quantities of water or no modeling performed = 0 points; models suggest sufficient quantity of water = 3; Field tests, measurements, or project specific studies confirm sufficient quantities of water = 5]</i>	Uniform Standard 2B - If necessary, does the sponsor hold necessary legal rights, water rights and/or contracts to use the water that this project would require? <i>[Legal rights, water rights and/or contract application not submitted = 0 points; application submitted = 2; application is administratively complete = 3; legal rights, water rights and/or contracts obtained or not needed = 5]</i>	Uniform Standard 2C - What level of engineering and/or planning has been accomplished for this project? <i>[Project idea is outlined in RWP = 1 point; feasibility studies initiated = 2; feasibility studies completed = 3; conceptual design initiated = 4; conceptual design completed = 5; preliminary engineering report initiated = 6; preliminary engineering report completed = 7; preliminary design initiated = 8; preliminary design completed = 9; final design complete = 10]</i>	Uniform Standard 2D - Has the project sponsor requested in writing that the project be included in the Regional Water Plan? <i>[No = 0 points; yes = 5]</i>	Criteria 2 Total Score	Weighted Criteria 2 Total
SHEL-LTK Infrastructure	LIVESTOCK, SHELBY	\$ 18,582,000	3	0	1	5	9	36
Southern Utilities Conservation	SOUTHERN UTILITIES	\$ 33,264,000	3	5	1	0	9	36
UNM-ROR-NECHES RUN OF RIVER INFRASTRUCTURE	UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY	\$ 518,977,000	3	0	4	5	12	48
JASP - Livestock - Transfer from LNVA	LIVESTOCK, JASPER	\$ -	3	0	1	0	4	16
ANRA-COL - LAKE COLUMBIA CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 402,862,000	3	5	3	5	16	64
Sand Hills WSC - SRA Transfer	SAND HILLS WSC	\$ -	3	0	1	0	4	16
JEFF-MFG INFRASTRUCTURE	MANUFACTURING, JEFFERSON	\$ 435,726,000	3	0	1	5	9	36
NACW - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, NACOGDOCHES	\$ 26,677,000	3	5	1	0	9	36
San Augustine Livestock	LIVESTOCK, SAN AUGUSTINE	\$ 41,302,000	3	0	1	5	9	36
SMTH-CYS - Infrastructure	CRYSTAL SYSTEMS TEXAS	\$ 2,531,000	3	0	1	5	9	36
SMTH-LDL-Infrastructure	LINDALE	\$ 7,592,000	3	0	1	5	9	36
JEFF-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, JEFFERSON	\$ 32,302,000	3	0	1	5	9	36
PANL - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, PANOLA	\$ 1,172,000	3	0	1	0	4	16
SMTH-BLD-Infrastructure	BULLARD	\$ 14,264,000	3	0	1	0	4	16
SAUG - San Augustine - New Groundwater Wells Infrastructure	SAN AUGUSTINE	\$ 1,055,000	3	0	1	0	4	16
Port Arthur	PORT ARTHUR	\$ 51,618,000	3	5	1	5	14	56
NACW - D&M WSC - New Groundwater Wells Infrastructure	D & M WSC	\$ 4,567,000	3	5	1	5	14	56
Orange Irrigation	IRRIGATION, ORANGE	\$ 14,624,000	3	0	1	5	9	36
RUSK/SMTH - Overton - New Groundwater Wells Infrastructure	OVERTON	\$ 8,914,000	3	5	1	0	9	36
RUSK - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, RUSK	\$ 283,000	3	0	1	0	4	16
Cushing Conservation	CUSHING	\$ 1,030,000	3	5	1	0	9	36
NACP-COL	NACOGDOCHES	\$ 50,754,000	3	5	1	5	14	56
Crystal Systems Conservation	CRYSTAL SYSTEMS TEXAS	\$ 954,000	3	5	1	0	9	36
LNVA-JEFF - Beaumont West Regional Reservoir	LOWER NECHES VALLEY AUTHORITY	\$ 37,538,000	3	5	5	5	18	72
RUSK-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, RUSK	\$ 30,008,000	3	0	1	5	9	36
SMTH-MFG-Infrastructure	MANUFACTURING, SMITH	\$ 6,198,000	3	0	1	5	9	36
LUFK-RAY PHASE 1	LUFKIN	\$ 78,220,000	3	5	3	5	16	64
ANGL-MIN-INFRASTRUCTURE	MINING, ANGELINA	\$ 7,927,000	3	5	4	5	17	68
CHER-MIN-INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 7,013,000	3	5	1	5	14	56
HDSN - Mining - New Groundwater Wells Infrastructure	MINING, HENDERSON	\$ 201,000	3	0	1	0	4	16
TYL-PAL - PALESTINE INFRASTRUCTURE	TYLER	\$ 111,190,000	3	5	1	5	14	56
Henderson Conservation	HENDERSON	\$ 9,900,000	3	5	1	0	9	36
Nacogdoches Conservation	NACOGDOCHES	\$ 27,720,000	3	5	1	0	9	36
Tyler Conservation	TYLER	\$ 58,766,000	3	5	1	0	9	36
San Augustine Conservation	SAN AUGUSTINE	\$ 2,297,000	3	5	1	0	9	36
CHER - Alto Rural WSC - New Groundwater Wells Infrastructure	ALTO RURAL WSC	\$ 2,426,000	3	5	1	0	9	36
NACW-MIN-Infrastructure	MINING, NACOGDOCHES	\$ 18,647,000	3	5	1	5	14	56
ANRA-GW-NEW GROUNDWATER WELLS INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 29,775,000	3	5	1	5	14	56
CENT-REU-PIPELINE FROM WWTP TO LAKE CENTER	CENTER	\$ 18,110,000	5	5	3	5	18	72
RUSK-MIN	MINING, RUSK	\$ 14,808,000	3	5	1	5	14	56
LAKE-STRIKER-DREDGING	ANGELINA NACOGDOCHES WCID #1	\$ 23,716,000	0	5	1	5	11	44
LNVA-SRA Infrastructure	LOWER NECHES VALLEY AUTHORITY	\$ 529,606,000	3	0	7	5	15	60
Jasper Conservation	JASPER	\$ 15,444,000	3	5	1	0	9	36
ANRA-WTP-WTP CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 117,250,000	3	5	1	5	14	56
CHER/RUSK - Wright City WSC - New Groundwater Wells Infrastructure	WRIGHT CITY WSC	\$ 2,361,000	3	0	1	0	4	16
JACK-COL	JACKSONVILLE	\$ 29,390,000	3	5	1	5	14	56
LUFK-RAY PHASE 2	LUFKIN	\$ 78,199,000	3	5	3	5	16	64
SAUG-MIN-INFRASTRUCTURE	MINING, SAN AUGUSTINE	\$ 42,807,000	3	5	1	5	14	56
HDSN - Moore Station - New Groundwater Wells Infrastructure	MOORE STATION WSC	\$ 1,417,000	3	0	1	0	4	16
LUFK-RAY PHASE 3	LUFKIN	\$ 8,834,000	3	5	3	5	16	64
CENT-TOL-TOLEDO BEND TO CENTER	CENTER	\$ 38,916,000	3	0	3	5	11	44
JEFF-CTR INFRASTRUCTURE	COUNTY-OTHER, JEFFERSON	\$ 21,665,000	3	0	1	5	9	36
Whitehouse-Transfer from Tyler	WHITEHOUSE	\$ 7,666,000	3	0	1	5	9	36
HOU - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, HOUSTON	\$ 399,000	3	0	1	0	4	16
CHER - Rusk - New Groundwater Wells Infrastructure	RUSK	\$ 2,361,000	3	0	1	0	4	16
HDSN - Chandler - New Groundwater Wells Infrastructure	CHANDLER	\$ 1,397,000	3	0	1	0	4	16
RUSK - Jacobs WSC - New Groundwater Wells Infrastructure	JACOBS WSC	\$ 1,795,000	3	0	1	0	4	16

DRAFT Prioritization of Recommended Water Management Strategies

			Criteria 3 - Project Viability							
			100	10	100	10	5	5	30	250
Project Name	Project Sponsor Entity	Capital Cost	Uniform Standard 3A - In the decade the project supply comes online, what is the % of the WUG's (or WUGs') needs satisfied by this project? <i>[Calculation is based on the needs of all WUGs receiving water from the project.]</i>	Converted Needs-based score for Uniform Standard 3A	Uniform Standard 3B - In the final decade of the planning period, what is the % of the WUG's (or WUGs') needs satisfied by this project? <i>[Calculation is based on the needs of all WUGs receiving water from the project.]</i>	Converted Needs-based score for Uniform Standard 3B	Uniform Standard 3C - Is this project the only economically feasible source of new supply for the WUG, other than conservation? <i>[No = 0 points; Yes = 5]</i>	Uniform Standard 3D - Does this project serve multiple WUGs? <i>[No = 0 points; Yes = 5]</i>	Criteria 3 Total Score	Weighted Criteria 3 Total
SHEL-LTK Infrastructure	LIVESTOCK, SHELBY	\$ 18,582,000	100	10.00	100	10.00	5	0	25.00	208.33
Southern Utilities Conservation	SOUTHERN UTILITIES	\$ 33,264,000	100	10.00	100	10.00	0	5	25.00	208.33
UNM-ROR-NECHES RUN OF RIVER INFRASTRUCTURE	UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY	\$ 518,977,000	100	10.00	100	10.00	5	5	30.00	250.00
JASP - Livestock - Transfer from LNVA	LIVESTOCK, JASPER	\$ -	100	10.00	100	10.00	5	0	25.00	208.33
ANRA-COL - LAKE COLUMBIA CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 402,862,000	100	10.00	75	7.50	5	5	27.50	229.17
Sand Hills WSC - SRA Transfer	SAND HILLS WSC	\$ -	94	9.40	90	9.00	5	0	23.40	195.00
JEFF-MFG INFRASTRUCTURE	MANUFACTURING, JEFFERSON	\$ 435,726,000	100	10.00	100	10.00	5	0	25.00	208.33
NACW - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, NACOGDOCHES	\$ 26,677,000	100	10.00	100	10.00	5	0	25.00	208.33
San Augustine Livestock	LIVESTOCK, SAN AUGUSTINE	\$ 41,302,000	100	10.00	100	10.00	5	0	25.00	208.33
SMTH-CYS - Infrastructure	CRYSTAL SYSTEMS TEXAS	\$ 2,531,000	100	10.00	100	10.00	5	0	25.00	208.33
SMTH-LDL-Infrastructure	LINDALE	\$ 7,592,000	100	10.00	100	10.00	5	0	25.00	208.33
JEFF-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, JEFFERSON	\$ 32,302,000	100	10.00	100	10.00	5	0	25.00	208.33
PANL - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, PANOLA	\$ 1,172,000	100	10.00	100	10.00	5	0	25.00	208.33
SMTH-BLD-Infrastructure	BULLARD	\$ 14,264,000	100	10.00	97	9.70	5	0	24.70	205.83
SAUG - San Augustine - New Groundwater Wells Infrastructure	SAN AUGUSTINE	\$ 1,055,000	100	10.00	100	10.00	5	5	30.00	250.00
Port Arthur	PORT ARTHUR	\$ 51,618,000	0	0.00	0	0.00	0	5	5.00	41.67
NACW - D&M WSC - New Groundwater Wells Infrastructure	D & M WSC	\$ 4,567,000	100	10.00	100	10.00	5	0	25.00	208.33
Orange Irrigation	IRRIGATION, ORANGE	\$ 14,624,000	100	10.00	100	10.00	5	0	25.00	208.33
RUSK/SMTH - Overton - New Groundwater Wells Infrastructure	OVERTON	\$ 8,914,000	100	10.00	100	10.00	5	0	25.00	208.33
RUSK - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, RUSK	\$ 283,000	100	10.00	100	10.00	5	0	25.00	208.33
Cushing Conservation	CUSHING	\$ 1,030,000	0	0.00	100	10.00	0	0	10.00	83.33
NACP-COL	NACOGDOCHES	\$ 50,754,000	0	0.00	0	0.00	5	5	10.00	83.33
Crystal Systems Conservation	CRYSTAL SYSTEMS TEXAS	\$ 954,000	0	0.00	27	2.70	0	0	2.70	22.50
LNVA-JEFF - Beaumont West Regional Reservoir	LOWER NECHES VALLEY AUTHORITY	\$ 37,538,000	0	0.00	0	0.00	0	5	5.00	41.67
RUSK-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, RUSK	\$ 30,008,000	100	10.00	100	10.00	5	0	25.00	208.33
SMTH-MFG-Infrastructure	MANUFACTURING, SMITH	\$ 6,198,000	100	10.00	100	10.00	5	0	25.00	208.33
LUFK-RAY PHASE 1	LUFKIN	\$ 78,220,000	63	6.30	0	0.00	5	5	16.30	135.83
ANGL-MIN-INFRASTRUCTURE	MINING, ANGELINA	\$ 7,927,000	0	0.00	100	10.00	5	0	15.00	125.00
CHER-MIN-INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 7,013,000	100	10.00	100	10.00	0	0	20.00	166.67
HDSN - Mining - New Groundwater Wells Infrastructure	MINING, HENDERSON	\$ 201,000	100	10.00	0	0.00	5	0	15.00	125.00
TYL-PAL - PALESTINE INFRASTRUCTURE	TYLER	\$ 111,190,000	0	0.00	0	0.00	5	5	10.00	83.33
Henderson Conservation	HENDERSON	\$ 9,900,000	0	0.00	0	0.00	0	5	5.00	41.67
Nacogdoches Conservation	NACOGDOCHES	\$ 27,720,000	0	0.00	0	0.00	0	5	5.00	41.67
Tyler Conservation	TYLER	\$ 58,766,000	0	0.00	0	0.00	0	5	5.00	41.67
San Augustine Conservation	SAN AUGUSTINE	\$ 2,297,000	8	0.80	26	2.60	0	5	8.40	70.00
CHER - Alto Rural WSC - New Groundwater Wells Infrastructure	ALTO RURAL WSC	\$ 2,426,000	100	10.00	89	8.90	5	5	28.90	240.83
NACW-MIN-Infrastructure	MINING, NACOGDOCHES	\$ 18,647,000	100	10.00	0	0.00	5	0	15.00	125.00
ANRA-GW-NEW GROUNDWATER WELLS INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 29,775,000	9	0.90	6	0.60	0	0	1.50	12.50
CENT-REU-PIPELINE FROM WWTP TO LAKE CENTER	CENTER	\$ 18,110,000	0	0.00	0	0.00	0	5	5.00	41.67
RUSK-MIN	MINING, RUSK	\$ 14,808,000	100	10.00	0	0.00	5	0	15.00	125.00
LAKE-STRIKER-DREDGING	ANGELINA NACOGDOCHES WCID #1	\$ 23,716,000	0	0.00	0	0.00	0	5	5.00	41.67
LNVA-SRA Infrastructure	LOWER NECHES VALLEY AUTHORITY	\$ 529,606,000	0	0.00	0	0.00	0	5	5.00	41.67
Jasper Conservation	JASPER	\$ 15,444,000	0	0.00	0	0.00	0	0	0.00	0.00
ANRA-WTP-WTP CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 117,250,000	0	0.00	0	0.00	0	5	5.00	41.67
CHER/RUSK - Wright City WSC - New Groundwater Wells Infrastructure	WRIGHT CITY WSC	\$ 2,361,000	100	10.00	100	10.00	5	0	25.00	208.33
JACK-COL	JACKSONVILLE	\$ 29,390,000	0	0.00	0	0.00	5	5	10.00	83.33
LUFK-RAY PHASE 2	LUFKIN	\$ 78,199,000	0	0.00	0	0.00	5	5	10.00	83.33
SAUG-MIN-INFRASTRUCTURE	MINING, SAN AUGUSTINE	\$ 42,807,000	100	10.00	0	0.00	5	0	15.00	125.00
HDSN - Moore Station - New Groundwater Wells Infrastructure	MOORE STATION WSC	\$ 1,417,000	100	10.00	100	10.00	5	0	25.00	208.33
LUFK-RAY PHASE 3	LUFKIN	\$ 8,834,000	0	0.00	0	0.00	5	5	10.00	83.33
CENT-TOL-TOLEDO BEND TO CENTER	CENTER	\$ 38,916,000	0	0.00	0	0.00	0	5	5.00	41.67
JEFF-CTR INFRASTRUCTURE	COUNTY-OTHER, JEFFERSON	\$ 21,665,000	100	10.00	100	10.00	5	0	25.00	208.33
Whitehouse-Transfer from Tyler	WHITEHOUSE	\$ 7,666,000	100	10.00	100	10.00	5	0	25.00	208.33
HOU - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, HOUSTON	\$ 399,000	100	10.00	100	10.00	5	0	25.00	208.33
CHER - Rusk - New Groundwater Wells Infrastructure	RUSK	\$ 2,361,000	100	10.00	100	10.00	5	0	25.00	208.33
HDSN - Chandler - New Groundwater Wells Infrastructure	CHANDLER	\$ 1,397,000	86	8.60	86	8.60	5	0	22.20	185.00
RUSK - Jacobs WSC - New Groundwater Wells Infrastructure	JACOBS WSC	\$ 1,795,000	100	10.00	100	10.00	5	0	25.00	208.33

DRAFT Prioritization of Recommended Water Management Strategies			Criteria 4 - Project Sustainability				Criteria 5 - Project Cost Effectiveness		FINAL SCORE FOR PROJECT
			10	5	15	150	5	100	1000
Project Name	Project Sponsor Entity	Capital Cost	Uniform Standard 4A - Over what period of time is this project expected to provide water (regardless of the planning period)? [Less than or equal to 20 yrs = 5 points; greater than 20 yrs = 10]	Uniform Standard 4B - Does the volume of water supplied by the project change over the regional water planning period? [Decreases = 0 points; no change = 3; increases = 5]	Criteria 4 Total Score	Weighted Criteria 4 Total	Uniform Standard 5A - What is the expected unit cost of water supplied by this project compared to the median unit cost of all other recommended strategies in the region's current RWP? (Project's Unit Cost divided by the median project's unit cost) [200% or greater than median = 0 points; 150% to 199% = 1; 101% to 149% = 2; 100% = 3; 51% to 99% = 4; 0% to 50% = 5]	Weighted Criteria 5 Total	
SHEL-LTK Infrastructure	LIVESTOCK, SHELBY	\$ 18,582,000	10	5	15	150	4	80	874.33
Southern Utilities Conservation	SOUTHERN UTILITIES	\$ 33,264,000	10	5	15	150	4	80	874.33
UNM-ROR-NECHES RUN OF RIVER INFRASTRUCTURE	UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY	\$ 518,977,000	10	3	13	130	4	80	868.00
JASP - Livestock - Transfer from LNVA	LIVESTOCK, JASPER	\$ -	10	3	13	130	5	100	854.33
ANRA-COL - LAKE COLUMBIA CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 402,862,000	10	0	10	100	5	100	853.17
Sand Hills WSC - SRA Transfer	SAND HILLS WSC	\$ -	10	5	15	150	4	80	841.00
JEFF-MFG INFRASTRUCTURE	MANUFACTURING, JEFFERSON	\$ 435,726,000	10	5	15	150	4	80	834.33
NACW - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, NACOGDOCHES	\$ 26,677,000	10	5	15	150	5	100	814.33
San Augustine Livestock	LIVESTOCK, SAN AUGUSTINE	\$ 41,302,000	10	5	15	150	5	100	814.33
SMTH-CYS - Infrastructure	CRYSTAL SYSTEMS TEXAS	\$ 2,531,000	10	5	15	150	5	100	814.33
SMTH-LDL-Infrastructure	LINDALE	\$ 7,592,000	10	5	15	150	5	100	814.33
JEFF-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, JEFFERSON	\$ 32,302,000	10	3	13	130	2	40	774.33
PANL - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, PANOLA	\$ 1,172,000	10	3	13	130	5	100	774.33
SMTH-BLD-Infrastructure	BULLARD	\$ 14,264,000	10	5	15	150	2	40	771.83
SAUG - San Augustine - New Groundwater Wells Infrastructure	SAN AUGUSTINE	\$ 1,055,000	10	0	10	100	4	80	766.00
Port Arthur	PORT ARTHUR	\$ 51,618,000	10	5	15	150	5	100	747.67
NACW - D&M WSC - New Groundwater Wells Infrastructure	D & M WSC	\$ 4,567,000	10	5	15	150	4	80	734.33
Orange Irrigation	IRRIGATION, ORANGE	\$ 14,624,000	10	3	13	130	0	0	734.33
RUSK/SMTH - Overton - New Groundwater Wells Infrastructure	OVERTON	\$ 8,914,000	10	5	15	150	1	20	734.33
RUSK - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, RUSK	\$ 283,000	10	5	15	150	5	100	714.33
Cushing Conservation	CUSHING	\$ 1,030,000	10	5	15	150	2	40	709.33
NACP-COL	NACOGDOCHES	\$ 50,754,000	10	3	13	130	4	80	709.33
Crystal Systems Conservation	CRYSTAL SYSTEMS TEXAS	\$ 954,000	10	5	15	150	5	100	708.50
LNVA-JEFF - Beaumont West Regional Reservoir	LOWER NECHES VALLEY AUTHORITY	\$ 37,538,000	10	3	13	130	5	100	703.67
RUSK-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, RUSK	\$ 30,008,000	10	3	13	130	0	0	694.33
SMTH-MFG-Infrastructure	MANUFACTURING, SMITH	\$ 6,198,000	10	3	13	130	0	0	694.33
LUFK-RAY PHASE 1	LUFKIN	\$ 78,220,000	10	3	13	130	2	40	689.83
ANGL-MIN-INFRASTRUCTURE	MINING, ANGELINA	\$ 7,927,000	10	3	13	130	0	0	683.00
CHER-MIN-INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 7,013,000	10	0	10	100	0	0	682.67
HDSN - Mining - New Groundwater Wells Infrastructure	MINING, HENDERSON	\$ 201,000	10	0	10	100	4	80	681.00
TYL-PAL - PALESTINE INFRASTRUCTURE	TYLER	\$ 111,190,000	10	3	13	130	4	80	669.33
Henderson Conservation	HENDERSON	\$ 9,900,000	10	5	15	150	2	40	667.67
Nacogdoches Conservation	NACOGDOCHES	\$ 27,720,000	10	5	15	150	2	40	667.67
Tyler Conservation	TYLER	\$ 58,766,000	10	5	15	150	2	40	667.67
San Augustine Conservation	SAN AUGUSTINE	\$ 2,297,000	10	5	15	150	0	0	656.00
CHER - Alto Rural WSC - New Groundwater Wells Infrastructure	ALTO RURAL WSC	\$ 2,426,000	10	3	13	130	4	80	646.83
NACW-MIN-Infrastructure	MINING, NACOGDOCHES	\$ 18,647,000	10	0	10	100	2	40	641.00
ANRA-GW-NEW GROUNDWATER WELLS INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	\$ 29,775,000	10	3	13	130	4	80	638.50
CENT-REU-PIPELINE FROM WWTP TO LAKE CENTER	CENTER	\$ 18,110,000	10	3	13	130	1	20	623.67
RUSK-MIN	MINING, RUSK	\$ 14,808,000	10	0	10	100	0	0	601.00
LAKE-STRIKER-DREDGING	ANGELINA NACOGDOCHES WCID #1	\$ 23,716,000	10	3	13	130	5	100	595.67
LNVA-SRA Infrastructure	LOWER NECHES VALLEY AUTHORITY	\$ 529,606,000	10	3	13	130	4	80	591.67
Jasper Conservation	JASPER	\$ 15,444,000	10	5	15	150	0	0	586.00
ANRA-WTP-WTP CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	\$ 117,250,000	5	3	8	80	0	0	577.67
CHER/RUSK - Wright City WSC - New Groundwater Wells Infrastructure	WRIGHT CITY WSC	\$ 2,361,000	10	5	15	150	2	40	574.33
JACK-COL	JACKSONVILLE	\$ 29,390,000	10	3	13	130	1	20	569.33
LUFK-RAY PHASE 2	LUFKIN	\$ 78,199,000	10	3	13	130	2	40	557.33
SAUG-MIN-INFRASTRUCTURE	MINING, SAN AUGUSTINE	\$ 42,807,000	5	0	5	50	0	0	551.00
HDSN - Moore Station - New Groundwater Wells Infrastructure	MOORE STATION WSC	\$ 1,417,000	10	5	15	150	4	80	534.33
LUFK-RAY PHASE 3	LUFKIN	\$ 8,834,000	10	3	13	130	4	80	517.33
CENT-TOL-TOLEDO BEND TO CENTER	CENTER	\$ 38,916,000	10	3	13	130	1	20	515.67
JEFF-CTR INFRASTRUCTURE	COUNTY-OTHER, JEFFERSON	\$ 21,665,000	10	5	15	150	2	40	514.33
Whitehouse-Transfer from Tyler	WHITEHOUSE	\$ 7,666,000	10	5	15	150	0	0	474.33
HOU - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, HOUSTON	\$ 399,000	10	3	13	130	5	100	454.33
CHER - Rusk - New Groundwater Wells Infrastructure	RUSK	\$ 2,361,000	10	3	13	130	2	40	434.33
HDSN - Chandler - New Groundwater Wells Infrastructure	CHANDLER	\$ 1,397,000	10	3	13	130	2	40	371.00
RUSK - Jacobs WSC - New Groundwater Wells Infrastructure	JACOBS WSC	\$ 1,795,000	10	3	13	130	0	0	354.33

DRAFT Prioritization of Recommended Water Management Strategies
(Sorted by Prioritization Score)

Project Name	Project Sponsor Entity	Score	Rank
SHEL-LTK Infrastructure	LIVESTOCK, SHELBY	874.33	1
Southern Utilities Conservation	SOUTHERN UTILITIES	874.33	1
UNM-ROR-NECHES RUN OF RIVER INFRASTRUCTURE	UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY	868.00	3
JASP - Livestock - Transfer from LNVA	LIVESTOCK, JASPER	854.33	4
ANRA-COL - LAKE COLUMBIA CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	853.17	5
Sand Hills WSC - SRA Transfer	SAND HILLS WSC	841.00	6
JEFF-MFG INFRASTRUCTURE	MANUFACTURING, JEFFERSON	834.33	7
NACW - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, NACOGDOCHES	814.33	8
San Augustine Livestock	LIVESTOCK, SAN AUGUSTINE	814.33	8
SMTH-CYS - Infrastructure	CRYSTAL SYSTEMS TEXAS	814.33	8
SMTH-LDL-Infrastructure	LINDALE	814.33	8
JEFF-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, JEFFERSON	774.33	12
PANL - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, PANOLA	774.33	12
SMTH-BLD-Infrastructure	BULLARD	771.83	14
SAUG - San Augustine - New Groundwater Wells Infrastructure	SAN AUGUSTINE	766.00	15
Port Arthur	PORT ARTHUR	747.67	16
NACW - D&M WSC - New Groundwater Wells Infrastructure	D & M WSC	734.33	17
Orange Irrigation	IRRIGATION, ORANGE	734.33	17
RUSK/SMTH - Overton - New Groundwater Wells Infrastructure	OVERTON	734.33	17
RUSK - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, RUSK	714.33	20
Cushing Conservation	CUSHING	709.33	21
NACP-COL	NACOGDOCHES	709.33	21
Crystal Systems Conservation	CRYSTAL SYSTEMS TEXAS	708.50	23
LNVA-JEFF - Beaumont West Regional Reservoir	LOWER NECHES VALLEY AUTHORITY	703.67	24
RUSK-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, RUSK	694.33	25
SMTH-MFG-Infrastructure	MANUFACTURING, SMITH	694.33	25
LUFK-RAY PHASE 1	LUFKIN	689.83	27
ANGL-MIN-INFRASTRUCTURE	MINING, ANGELINA	683.00	28
CHER-MIN-INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	682.67	29
HDSN - Mining - New Groundwater Wells Infrastructure	MINING, HENDERSON	681.00	30
TYL-PAL - PALESTINE INFRASTRUCTURE	TYLER	669.33	31
Henderson Conservation	HENDERSON	667.67	32
Nacogdoches Conservation	NACOGDOCHES	667.67	32
Tyler Conservation	TYLER	667.67	32
San Augustine Conservation	SAN AUGUSTINE	656.00	35
CHER - Alto Rural WSC - New Groundwater Wells Infrastructure	ALTO RURAL WSC	646.83	36
NACW-MIN-Infrastructure	MINING, NACOGDOCHES	641.00	37
ANRA-GW-NEW GROUNDWATER WELLS INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	638.50	38
CENT-REU-PIPELINE FROM WWTP TO LAKE CENTER	CENTER	623.67	39
RUSK-MIN	MINING, RUSK	601.00	40
LAKE-STRIKER-DREDGING	ANGELINA NACOGDOCHES WCID #1	595.67	41
LNVA-SRA Infrastructure	LOWER NECHES VALLEY AUTHORITY	591.67	42
Jasper Conservation	JASPER	586.00	43
ANRA-WTP-WTP CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	577.67	44
CHER/RUSK - Wright City WSC - New Groundwater Wells Infrastructure	WRIGHT CITY WSC	574.33	45
JACK-COL	JACKSONVILLE	569.33	46
LUFK-RAY PHASE 2	LUFKIN	557.33	47
SAUG-MIN-INFRASTRUCTURE	MINING, SAN AUGUSTINE	551.00	48
HDSN - Moore Station - New Groundwater Wells Infrastructure	MOORE STATION WSC	534.33	49
LUFK-RAY PHASE 3	LUFKIN	517.33	50
CENT-TOL-TOLEDO BEND TO CENTER	CENTER	515.67	51
JEFF-CTR INFRASTRUCTURE	COUNTY-OTHER, JEFFERSON	514.33	52
Whitehouse-Transfer from Tyler	WHITEHOUSE	474.33	53
HOU - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, HOUSTON	454.33	54
CHER - Rusk - New Groundwater Wells Infrastructure	RUSK	434.33	55
HDSN - Chandler - New Groundwater Wells Infrastructure	CHANDLER	371.00	56
RUSK - Jacobs WSC - New Groundwater Wells Infrastructure	JACOBS WSC	354.33	57

DRAFT Prioritization of Recommended Water Management Strategies
(Sorted by Project Sponsor Entity)

Project Name	Project Sponsor Entity	Score	Rank
CHER - Alto Rural WSC - New Groundwater Wells Infrastructure	ALTO RURAL WSC	646.83	36
ANRA-COL - LAKE COLUMBIA CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	853.17	5
ANRA-GW-NEW GROUNDWATER WELLS INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	638.50	38
ANRA-WTP-WTP CONSTRUCTION	ANGELINA & NECHES RIVER AUTHORITY	577.67	44
CHER-MIN-INFRASTRUCTURE	ANGELINA & NECHES RIVER AUTHORITY	682.67	29
LAKE-STRIKER-DREDGING	ANGELINA NACOGDOCHES WCID #1	595.67	41
SMTH-BLD-Infrastructure	BULLARD	771.83	14
CENT-REU-PIPELINE FROM WWTP TO LAKE CENTER	CENTER	623.67	39
CENT-TOL-TOLEDO BEND TO CENTER	CENTER	515.67	51
HDSN - Chandler - New Groundwater Wells Infrastructure	CHANDLER	371.00	56
JEFF-CTR INFRASTRUCTURE	COUNTY-OTHER, JEFFERSON	514.33	52
Crystal Systems Conservation	CRYSTAL SYSTEMS TEXAS	708.50	23
SMTH-CYS - Infrastructure	CRYSTAL SYSTEMS TEXAS	814.33	8
Cushing Conservation	CUSHING	709.33	21
NACW - D&M WSC - New Groundwater Wells Infrastructure	D & M WSC	734.33	17
Henderson Conservation	HENDERSON	667.67	32
Orange Irrigation	IRRIGATION, ORANGE	734.33	17
JACK-COL	JACKSONVILLE	569.33	46
RUSK - Jacobs WSC - New Groundwater Wells Infrastructure	JACOBS WSC	354.33	57
Jasper Conservation	JASPER	586.00	43
SMTH-LDL-Infrastructure	LINDALE	814.33	8
HOU - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, HOUSTON	454.33	54
JASP - Livestock - Transfer from LNVA	LIVESTOCK, JASPER	854.33	4
NACW - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, NACOGDOCHES	814.33	8
PANL - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, PANOLA	774.33	12
RUSK - Livestock - New Groundwater Wells Infrastructure	LIVESTOCK, RUSK	714.33	20
San Augustine Livestock	LIVESTOCK, SAN AUGUSTINE	814.33	8
SHEL-LTK Infrastructure	LIVESTOCK, SHELBY	874.33	1
LNVA-JEFF - Beaumont West Regional Reservoir	LOWER NECHES VALLEY AUTHORITY	703.67	24
LNVA-SRA Infrastructure	LOWER NECHES VALLEY AUTHORITY	591.67	42
LUFK-RAY PHASE 1	LUFKIN	689.83	27
LUFK-RAY PHASE 2	LUFKIN	557.33	47
LUFK-RAY PHASE 3	LUFKIN	517.33	50
JEFF-MFG INFRASTRUCTURE	MANUFACTURING, JEFFERSON	834.33	7
SMTH-MFG-Infrastructure	MANUFACTURING, SMITH	694.33	25
ANGL-MIN-INFRASTRUCTURE	MINING, ANGELINA	683.00	28
HDSN - Mining - New Groundwater Wells Infrastructure	MINING, HENDERSON	681.00	30
NACW-MIN-Infrastructure	MINING, NACOGDOCHES	641.00	37
RUSK-MIN	MINING, RUSK	601.00	40
SAUG-MIN-INFRASTRUCTURE	MINING, SAN AUGUSTINE	551.00	48
HDSN - Moore Station - New Groundwater Wells Infrastructure	MOORE STATION WSC	534.33	49
Nacogdoches Conservation	NACOGDOCHES	667.67	32
NACP-COL	NACOGDOCHES	709.33	21
RUSK/SMTH - Overton - New Groundwater Wells Infrastructure	OVERTON	734.33	17
Port Arthur	PORT ARTHUR	747.67	16
CHER - Rusk - New Groundwater Wells Infrastructure	RUSK	434.33	55
San Augustine Conservation	SAN AUGUSTINE	656.00	35
SAUG - San Augustine - New Groundwater Wells Infrastructure	SAN AUGUSTINE	766.00	15
Sand Hills WSC - SRA Transfer	SAND HILLS WSC	841.00	6
Southern Utilities Conservation	SOUTHERN UTILITIES	874.33	1
JEFF-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, JEFFERSON	774.33	12
RUSK-SEP INFRASTRUCTURE	STEAM ELECTRIC POWER, RUSK	694.33	25
Tyler Conservation	TYLER	667.67	32
TYL-PAL - PALESTINE INFRASTRUCTURE	TYLER	669.33	31
UNM-ROR-NECHES RUN OF RIVER INFRASTRUCTURE	UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY	868.00	3
Whitehouse-Transfer from Tyler	WHITEHOUSE	474.33	53
CHER/RUSK - Wright City WSC - New Groundwater Wells Infrastructure	WRIGHT CITY WSC	574.33	45