

**NOTICE OF PUBLIC HEARING  
OF  
GONZALES COUNTY UNDERGROUND  
WATER CONSERVATION DISTRICT  
On Proposed Additions and Amendments to the  
District's Management Plan**

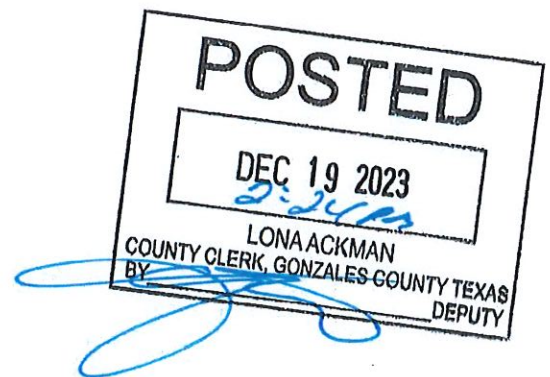
The Gonzales County Underground Water Conservation District ("the District") will hold a public hearing for the purpose of receiving comments on proposed additions and amendments to the Management Plan of the District.

The Board of Directors will take public comments on the proposed amendments to the Management Plan on Tuesday, January 09, 2024, at the District office located at 522 Saint Matthew Street, Gonzales, Texas. The public hearing will begin at 5:30 p.m. Agenda is as follows:

1. Call to order.
2. President of the Board to make comments.
3. Receive comments from the public on the District's proposed Management Plan.
4. Discussion of other items of interest by the Board and direction to management.
5. Adjourn.

Copies of the proposed additions and amendments to the Management Plan of the District are available at the offices of the Gonzales County Underground Water Conservation District, 522 Saint Matthew Street, Gonzales, Texas, from 8:00 a.m. to 5:00 p.m., Monday through Friday.

Written comments should be submitted to the General Manager, PO Box 1919, Gonzales, Texas 78629 by January 09, 2024 at 12:00 p.m., or presented at the hearing.



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Written comments should be submitted to the General Manager, PO Box 1919, Gonzales, Texas 78629 by January 09, 2024 at 12:00 p.m., or presented at the hearing.

Filed this 19th day of Dec 2023  
2:57 PM  
TERESA RODRIGUEZ  
COUNTY CLERK CALDWELL COUNTY, TEXAS  
By Lydia Alexander Deputy  
Lydia Alexander

Texas Water Code

Chapter 36

Section 36.1071

Management Plan

Sec. 36.1071. MANAGEMENT PLAN. (a) Following notice and hearing, the district shall, in coordination with surface water management entities on a regional basis, develop a management plan that addresses the following management goals, as applicable:

- (1) providing the most efficient use of groundwater;
- (2) controlling and preventing waste of groundwater;
- (3) controlling and preventing subsidence;
- (4) addressing conjunctive surface water management issues;
- (5) addressing natural resource issues;
- (6) addressing drought conditions;
- (7) addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost-effective; and
- (8) addressing the desired future conditions adopted by the district under Section

**36.108.**

(b) The management plan, or any amendments to the plan, shall be developed using the district's best available data and forwarded to the regional water planning group for use in their planning process.

(c) The commission and the Texas Water Development Board shall provide technical assistance to a district in the development of the management plan required under Subsection (a) which may include, if requested by the district, a preliminary review and comment on the plan prior to final approval by the board. If such review and comment by the commission is requested, the commission shall provide comment not later than 30 days from the date the request is received.

(d) The commission shall provide technical assistance to a district during its initial operational phase. If requested by a district, the Texas Water Development Board shall train the district on basic data collection methodology and provide technical assistance to districts.

(e) In the management plan described under Subsection (a), the district shall:

- (1) identify the performance standards and management objectives under which the district will operate to achieve the management goals identified under Subsection (a);
- (2) specify, in as much detail as possible, the actions, procedures, performance, and avoidance that are or may be necessary to effect the plan, including specifications and proposed rules;
- (3) include estimates of the following:
  - (A) modeled available groundwater in the district based on the desired future condition established under Section 36.108;
  - (B) the amount of groundwater being used within the district on an annual basis;
  - (C) the annual amount of recharge from precipitation, if any, to the groundwater resources within the district;
  - (D) for each aquifer, the annual volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers;
  - (E) the annual volume of flow into and out of the district within each aquifer and between aquifers in the district, if a groundwater availability model is available;
  - (F) the projected surface water supply in the district according to the most recently adopted state water plan; and
  - (G) the projected total demand for water in the district according to the most recently adopted state water plan; and
- (4) consider the water supply needs and water management strategies included in the adopted state water plan.

(f) The district shall adopt rules necessary to implement the management plan. Prior to the development of the management plan and its approval under Section 36.1072, the district



may not adopt rules other than rules pertaining to the registration and interim permitting of new and existing wells and rules governing spacing and procedure before the district's board; however, the district may not adopt any rules limiting the production of wells, except rules requiring that groundwater produced from a well be put to a nonwasteful, beneficial use. The district may accept applications for permits under Section 36.113, provided the district does not act on any such application until the district's management plan is approved as provided in Section 36.1072.

(g) The district shall adopt amendments to the management plan as necessary. Amendments to the management plan shall be adopted after notice and hearing and shall otherwise comply with the requirements of this section.

(h) In developing its management plan, the district shall use the groundwater availability modeling information provided by the executive administrator together with any available site-specific information that has been provided by the district to the executive administrator for review and comment before being used in the plan.

Added by Acts 1995, 74th Leg., ch. 933, Sec. 2, eff. Sept. 1, 1995. Redesignated from 36.107(b) and (c) and amended by Acts 1997, 75th Leg., ch. 1010, Sec. 4.28, eff. Sept. 1, 1997. Amended by Acts 2001, 77th Leg., ch. 966, Sec. 2.46, eff. Sept. 1, 2001.

Amended by:

Acts 2005, 79th Leg., Ch. 970 (H.B. 1763), Sec. 5, eff. September 1, 2005.

Acts 2011, 82nd Leg., R.S., Ch. 17 (S.B. 727), Sec. 1, eff. April 29, 2011.

Acts 2011, 82nd Leg., R.S., Ch. 18 (S.B. 737), Sec. 2, eff. September 1, 2011.

Acts 2011, 82nd Leg., R.S., Ch. 1233 (S.B. 660), Sec. 16, eff. September 1, 2011.

Sec. 36.1072. TEXAS WATER DEVELOPMENT BOARD REVIEW AND APPROVAL OF MANAGEMENT PLAN. (a)  
In this section, "development board" means the Texas Water Development Board.

(a-1) A district shall, not later than three years after the creation of the district or, if the district required confirmation, not later than three years after the election confirming the district's creation, submit the management plan required under Section 36.1071 to the executive administrator for review and approval.

(b) Within 60 days of receipt of a district's management plan adopted under Section 36.1071, readopted under Subsection (e) or (g) of this section, or amended under Section 36.1073, the executive administrator shall approve the district's plan if the plan is administratively complete. A management plan is administratively complete when it contains the information required to be submitted under Section 36.1071(a) and (e). The executive administrator may determine whether conditions justify waiver of the requirements under Section 36.1071(e) (4).

(c) Once the executive administrator has approved a district's management plan:

(1) the executive administrator may not revoke but may require revisions to the approved management plan as provided by Subsection (g); and

(2) the executive administrator may request additional information from the district if the information is necessary to clarify, modify, or supplement previously submitted material, but a request for additional information does not render the management plan unapproved.

(d) A management plan takes effect on approval by the executive administrator or, if appealed, on approval by the development board.

(e) The district may review the plan annually and must review and readopt the plan with or without revisions at least once every five years. The district shall provide the readopted plan to the executive administrator not later than the 60th day after the date on which the plan was readopted. Approval of the preceding management plan remains in effect until:

(1) the district fails to timely readopt a management plan;



(2) the district fails to timely submit the district's readopted management plan to the executive administrator; or

(3) the executive administrator determines that the readopted management plan does not meet the requirements for approval, and the district has exhausted all appeals to the Texas Water Development Board or appropriate court.

(f) If the executive administrator does not approve the district's management plan, the executive administrator shall provide to the district, in writing, the reasons for the action. Not later than the 180th day after the date a district receives notice that its management plan has not been approved, the district may submit a revised management plan for review and approval. The executive administrator's decision may be appealed to the development board. If the development board decides not to approve the district's management plan on appeal, the district may request that the conflict be mediated. The district and the board may seek the assistance of the Center for Public Policy Dispute Resolution at The University of Texas School of Law or an alternative dispute resolution system established under Chapter 152, Civil Practice and Remedies Code, in obtaining a qualified impartial third party to mediate the conflict. The cost of the mediation services must be specified in the agreement between the parties and the Center for Public Policy Dispute Resolution or the alternative dispute resolution system. If the parties do not resolve the conflict through mediation, the decision of the development board not to approve the district's management plan may be appealed to a district court in Travis County. Costs for the appeal shall be set by the court hearing the appeal. An appeal under this subsection is by trial de novo. The commission shall not take enforcement action against a district under Subchapter I until the latest of the expiration of the 180-day period, the date the development board has taken final action withholding approval of a revised management plan, the date the mediation is completed, or the date a final judgment upholding the board's decision is entered by a district court. An enforcement action may not be taken against a district by the commission or the state auditor under Subchapter I because the district's management plan and the approved regional water plan are in conflict while the parties are attempting to resolve the conflict before the development board, in mediation, or in court. Rules of the district continue in full force and effect until all appeals under this subsection have been exhausted and the final judgment is adverse to the district.

(g) A person with a legally defined interest in groundwater in a district, or the regional water planning group, may file a petition with the development board stating that a conflict requiring resolution may exist between the district's approved management plan developed under Section 36.1071 and the state water plan. If a conflict exists, the development board shall provide technical assistance to and facilitate coordination between the involved person or regional water planning group and the district to resolve the conflict. Not later than the 45th day after the date the person or the regional water planning group files a petition with the development board, if the conflict has not been resolved, the district and the involved person or regional planning group may mediate the conflict. The district and the involved person or regional planning group may seek the assistance of the Center for Public Policy Dispute Resolution at The University of Texas School of Law or an alternative dispute resolution system established under Chapter 152, Civil Practice and Remedies Code, in obtaining a qualified impartial third party to mediate the conflict. The cost of the mediation services must be specified in the agreement between the parties and the Center for Public Policy Dispute Resolution or the alternative dispute resolution system. If the district and the involved person or regional planning group cannot resolve the conflict through mediation, the development board shall resolve the conflict not later than the 60th day after the date the mediation is completed. The development board action under this provision may be consolidated, at the option of the board, with related action under Section 16.053(p). If the development board determines that resolution of the conflict requires a

revision of the approved management plan, the development board shall provide information to the district. The district shall prepare any revisions to the plan based on the information provided by the development board and shall hold, after notice, at least one public hearing at some central location within the district. The district shall consider all public and development board comments, prepare, revise, and adopt its management plan, and submit the revised management plan to the development board for approval. On the request of the district or the regional water planning group, the development board shall include discussion of the conflict and its resolution in the state water plan that the development board provides to the governor, the lieutenant governor, and the speaker of the house of representatives under Section 16.051(e). If the groundwater conservation district disagrees with the decision of the development board under this subsection, the district may appeal the decision to a district court in Travis County. Costs for the appeal shall be set by the court hearing the appeal. An appeal under this subsection is by trial de novo.

Added by Acts 1997, 75th Leg., ch. 1010, Sec. 4.28, eff. Sept. 1, 1997. Amended by Acts 2001, 77th Leg., ch. 966, Sec. 2.47, eff. Sept. 1, 2001.

Amended by:

Acts 2005, 79th Leg., Ch. 970 (H.B. 1763), Sec. 6, eff. September 1, 2005.

Acts 2011, 82nd Leg., R.S., Ch. 17 (S.B. 727), Sec. 2, eff. April 29, 2011.

Sec. 36.1073. AMENDMENT TO MANAGEMENT PLAN. Any amendment to the management plan shall be submitted to the executive administrator within 60 days following adoption of the amendment by the district's board. The executive administrator shall review and approve any amendment which substantially affects the management plan in accordance with the procedures established under Section 36.1072.

Added by Acts 1997, 75th Leg., ch. 1010, Sec. 4.28, eff. Sept. 1, 1997.

Amended by:

Acts 2005, 79th Leg., Ch. 970 (H.B. 1763), Sec. 7, eff. September 1, 2005.

Texas Water  
Development Board  
Correspondence



**Laura Martin**

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**From:** Stephen Allen <Stephen.Allen@twdb.texas.gov>  
**Sent:** Wednesday, October 11, 2023 9:32 AM  
**To:** Laura Martin  
**Subject:** RE: Data and instructions for submitting the Gonzalez County UWCD groundwater management plan for a pre-review

Laura- Don't worry about the target dates. In practice they operate as stretch goals. Many district plans are late. Currently there are many more 5-year plans due than usual and we are operating with a limited review staff. Every district is issued our guidelines for a complete plan but many districts do not review those and apply them to their plans which further slows the review process. My advice is to just plug away at the plan. You have the data report we sent you, the new GAM report, and the latest MAG report. Just update your existing plan with those, follow the guidelines document, and then submit the plan to me for a pre-review when you can get to it. Let me know by email as you have follow-up questions and concerns.

S. Allen

**From:** General Manager <generalmanager@gcuwcd.org>  
**Sent:** Wednesday, October 11, 2023 8:38 AM  
**To:** Haley Stakes <admin@gcuwcd.org>; Stephen Allen <Stephen.Allen@twdb.texas.gov>  
**Subject:** RE: Data and instructions for submitting the Gonzalez County UWCD groundwater management plan for a pre-review

**External: Beware of links/attachments.**

Stephen,  
I have received this data this morning, minutes ago. I am concerned about the timeline and deadlines for the plan. Thank you for including a tentative timeline. Do you have a moment to discuss?

Thank you,

*Laura Martin*

General Manager  
Gonzales County UWCD  
522 Saint Matthew St.  
P.O. Box 1919  
Gonzales, TX 78629  
830.672.1047  
[www.gcuwcd.org](http://www.gcuwcd.org)  
[generalmanager@gcuwcd.org](mailto:generalmanager@gcuwcd.org)

**From:** Haley Stakes <admin@gcuwcd.org>  
**Sent:** Wednesday, October 11, 2023 8:29 AM  
**To:** General Manager <generalmanager@gcuwcd.org>

**Subject:** FW: Data and instructions for submitting the Gonzalez County UWCD groundwater management plan for a pre-review

**From:** Stephen Allen <[Stephen.Allen@twdb.texas.gov](mailto:Stephen.Allen@twdb.texas.gov)>

**Sent:** Monday, October 9, 2023 3:22 PM

**To:** Haley Stakes <[admin@gcuwcd.org](mailto:admin@gcuwcd.org)>

**Subject:** Data and instructions for submitting the Gonzalez County UWCD groundwater management plan for a pre-review

PLEASE LET ME KNOW YOU RECEIVED THIS

Hi Laura- Today I am sending you the information you will need to update your groundwater management plan and email it to me for one or more pre-reviews. Pre-reviews are not required but are highly recommended. It is very unusual that a plan can achieve administrative completeness without one or more pre-reviews. Your current plan expires on **January 29, 2024**.

**Two important documents attached are:**

1. **Estimated Historical Water Use/2022 State Water Plan** data report which is required to be in the plan. Please present that in an appendix. You can also present the numbers, or tables of numbers in the text of the plan if you wish. But keep in mind if you build your own tables within the text of the plan from this data report you will need to proofread the numbers carefully because nearly every district using this approach introduces errors that the plan reviewers have to discover and add to our deficiency report. These errors will likely increase the time it will take to get your plan re-approved so it is best if you are meticulous in checking your numbers.
2. **Plan Preparation Guidelines document- At a minimum, please completely address all the items in the required section of this document BEFORE you submit the plan for a pre-review.** If any of those required items are missing they will be written up in our deficiency report and we will need to recommend additional rounds of pre-reviews to make sure the plan is administratively complete and approvable. Missing/incomplete items will likely extend the amount of time it will take to get your plan approved so it is best if you address these required items ahead of time. This year we have an enormous number of plans to review so we ask that each groundwater conservation district edit and proofread their plans carefully.

**Here are your target dates (31 TAC §356.54(c)(1)(2)):** In practice these target dates are pretty flexible. There are no penalties for late submittals. Just be engaged in making progress toward a complete updated plan.

- Final plan readoption by the GCD board: October 29, 2023
- Final plan submitted to the TWDB: November 29, 2023
- Expiration date of current plan: January 29, 2024

**Other items required for the plan:**

- Modeled available groundwater (GAM Run 21-018 MAG) report: Please report the MAG numbers from this report in the text of the plan or refer readers to the MAG report in an appendix, or both: [https://www.twdb.texas.gov/groundwater/docs/GAMruns/GR21-018\\_MAG.pdf](https://www.twdb.texas.gov/groundwater/docs/GAMruns/GR21-018_MAG.pdf)
- Groundwater availability model report (GAM Run 23-018) report: Please report the GAM numbers from this report in the text of the plan or refer readers to the GAM run report (preferred to reduce errors) in an appendix, or both: <https://www.twdb.texas.gov/groundwater/docs/GAMruns/GR23-018.pdf>

**Two other attachments (these do not need to be in the plan). This makes 4 attached files in all.**

- The checklist we use to determine if a plan is administratively complete (GMP Review Checklist).
- Definitions from our planning department which explain the meaning of each of the state water plan data tables (SWP Table Definitions).

If you have any questions or concerns just let me know by email. Presumably, you will be updating your existing management plan. If you would like to review plans from other districts that have been recently approved please let me know.

Thanks,  
Stephen Allen

Stephen Allen, P.G., Geoscientist  
Groundwater Technical Assistance Department  
Groundwater Resources  
Texas Water Development Board  
P. O. Box 13231  
1700 North Congress Avenue  
Austin, Texas 78711-3231  
[stephen.allen@twdb.texas.gov](mailto:stephen.allen@twdb.texas.gov)  
512-463-7317

## Guidelines for a successful groundwater conservation district Groundwater management plan pre-review by TWDB staff

Before turning in an electronic version of your plan for a pre-review please make sure that the required items listed below are in the plan. And please consider implementing the optional items listed in the second and third sections which are revisions we have suggested to districts in the past. Important goal definitions to keep in mind are presented in section 4.

### Section 1-Required Items

1. The management objective(s) and performance standard(s) of each goal in your plan should be time-based AND quantifiable. An example would be “the district will measure the water levels in ten wells twice per year and report the water levels to the Board of Directors every September.” If a goal is not applicable to the district, please write “this goal is not applicable” and provide an explanation why. The goals of conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, and brush control may be deemed not applicable because they are not appropriate or cost-effective. If that is the case, simply state that the goal is not applicable because it is not appropriate or cost effective. A goal that is not applicable has no management objective or performance standard.
2. Use the most current TWDB estimated historical water use (2019) and state water plan (2022) data which are found in the data packet we send you several months before your current plan’s expiration date. Some district plans are being submitted with old data from previous water use surveys and state water plans. If the district has its own historical water use data which it believes to be more accurate than TWDB data, then use these data instead, or in addition to, the TWDB estimated historical water use data.
3. Data from the TWDB GAM report, MAG report(s), and estimated historical water use /state water plan reports are required to be in the plan. The best practice is to place the reports in appendices and refer to them in the text. If you choose to create your own tables from the TWDB numbers it is highly likely that there will be errors in your tables so make sure you thoroughly check any district-created tables before you submit the plan for a pre-review. Common elements missed when creating your own tables include measurement units (such as acre-feet/year), footnotes, and thousand separators for values exceeding 999. And please remember to use the exact same wording in district-created GAM and MAG tables as you see in the original TWDB report tables. Tables should also be right-justified to line up values.
4. To meet the requirements for item #11 on the TWDB review checklist, please provide a hyperlink to your district rules in the “Actions, Procedures, and Performance” section of your plan, and double check that a reader can click on it to open the webpage correctly. If your rules are not on your website or you do not have a website, you are required to provide a hard copy of your rules when you submit the final version of your groundwater management plan to the TWDB.



5. Checklist Items #8 and #9, Consider and include the water supply needs and strategies: As stated in Texas Water Code Chapter 36(e)(4) the district is to “**consider** the water supply needs and water management strategies included in the adopted state water plan.” The inclusion of language showing that the district considered the water supply needs and water management strategies is required to be in the plan. Please provide a brief statement where you list in the text the primary water supply needs and water management strategies data values that are supplied in the data packet provided by the TWDB. Here are examples from another district on how to address these two requirements:

Projected water supply needs listed in the TWDB estimated historical water use/2022 state water plan data packet (Appendix A) are primarily municipal. Municipal needs in Guadalupe County exist for the following water user groups (WUGs): Cibolo, Crystal Clear WSC, Green Valley SUD, Luling, Marion, Martindale WSC, New Braunfels, Schertz, Seguin, Selma, and Water Services. Additional needs exist in one other WUG: Manufacturing. From 2020 to 2070, the total needs in Guadalupe County are projected to increase from 43 AF to 14,765 AF.

Projected water management strategies listed in the TWDB estimated historical water use/2022 state water plan data packet (Appendix A) are: Municipal Water Conservation (Cibolo, County-Other, Crystal Clear WSC, Gonzales County WSC, New Braunfels, Schertz, Seguin, Selma, and Water Services), Drought Management, (Crystal Clear WSC, Martindale, and Seguin), Carrizo-Wilcox Aquifer Wells (Canyon Regional Water Authority, and Schertz-Seguin Local Government Corporation). From 2020 to 2070, the total water management strategies in Guadalupe County are projected to increase from 13,806 AF to 37,631 AF.

6. Checklist Items #23-26, Controlling and preventing subsidence. Please reference the TWDB subsidence risk report, and state that you have reviewed it for applicability to your district: *Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062*, by LRE Water: <http://www.twdb.texas.gov/groundwater/models/research/subsidence/subsidence.asp>

Please reference the chapter and/or map from the report to demonstrate that you have reviewed it for applicability to your district. This report represents the best available science on the matter of subsidence in Texas. Both the Texas Water Code and the Texas Administrative Code require that districts rely on the best available science or best available information. In the past, districts have stated that because they overlie a “rigid structural framework” subsidence is not an issue but this explanation is no longer accepted as meeting the requirements of this goal. We also recommend you state that you will be on the lookout for signs of subsidence and that you will respond to any reports of potential subsidence.

## Section 2-Optional Recommended (yet important) Items

1. Please provide a contact page with the official address, email address, and phone number of the contact person for ongoing correspondence during the pre-review process. Let us know if a consultant or attorney hired by the district will be responsible for correspondence with TWDB staff.
2. Because we work with 98 groundwater conservation districts, please identify all email correspondence by stating in the subject box something like "Groundwater Management Plan – Texas Country GCD". This way we can easily search for correspondence with your district when needed. When we are actively working on a review, we may trade numerous emails with a district; please use a single email thread so we can easily see the whole history of our communication in one thread. And please include a signature section with your name, title, mailing address, website address, and telephone number.
3. **Important: Please review your plan for errors before sending it to us, for example: dates, spelling, formatting, grammar, sentence completion, and correct statutory references (if used though not required). Up-to-date statutory references are listed in the second and third columns of the management plan review checklist. Our primary role is to double check that your plan is administratively complete not to be the primary writers/editors of your groundwater management plan, though we may provide additional input to improve your plan. And, as always, please run spell and grammar check.**
4. Please number the pages of your groundwater management plan so TWDB reviewers have a page number to refer to when preparing your recommendation report.
5. A table of contents is not required but if you have one, please ensure that all the page numbers are correct.
6. Consider organizing the plan to match the order of the required items on the TWDB review checklist. This will speed up our review and is helpful if your district is audited by the Texas State Auditor's Office.
7. When presenting each management goal in the plan please consider using the same language you see in the first column of the review checklist for each goal heading. These words are directly from statute.

## Section 3-Additional details we commonly provide as suggested (optional) changes to help make the plan the best it can be

8. Use "modeled available groundwater" not "managed available groundwater"
9. For individual aquifers use, for example, "Edwards-Trinity (Plateau) Aquifer" rather than "Edwards-Trinity (Plateau) aquifer" because you are referring to a specific named aquifer.
10. When discussing multiple aquifers use "Dockum and Ogallala aquifers" rather than "Dockum and Ogallala Aquifers"

11. Use lowercase for “modeled available groundwater,” “desired future condition,” “groundwater conservation district,” “regional water planning area,” groundwater management area, groundwater management plan, etc.
12. If you decide to use acronyms in the plan, please define them at their first occurrence and then always use the acronym in the rest of the plan. For example, once you have defined “desired future condition (DFC)” always use “DFC” later in the plan.
13. Groundwater management plans are only in effect for five years, not ten years as some districts state.
14. Use the words “effect” and “affect,” “principle” and “principal,” and “insure” and “ensure” correctly.
15. Use a thousands separator in numbers exceeding 999 in value.
16. Up-to-date statutory references are listed in the second and third columns of the management plan review checklist. If references to statutes are your plan, please double check to make sure they are correct. The listing of statutory references in the plan is not required.
17. Any web links you use in the plan should be active and correct. Please test them before submitting the plan for pre-review.
18. Checklist #35-38, Addressing drought conditions. Consider adding the TWDB drought page address to this section. It includes information on drought and drought-related web links:  
<https://www.waterdatafortexas.org/drought>

**Section 4-Please also refer to the following definitions from the Texas Administrative Code, Chapter 356 and/or the Texas Water Code Chapter 36 that are applicable to the goals in your groundwater management plan:**

- Conjunctive use—The combined use of groundwater and surface water sources that optimizes the beneficial characteristics of each source, such as water banking, aquifer storage and recovery, enhanced recharge, and joint management.
- Most efficient use of groundwater—Practices, techniques, and technologies that a district determines will provide the least consumption of groundwater for each type of use balanced with the benefits of using groundwater.
- Natural resources issues—Issues related to environmental and other concerns that may be affected by a district’s groundwater management plan and rules, such as impacts on endangered species, soils, oil and gas production, mining, air and water quality degradation, agriculture, and plant and animal life.
- Recharge enhancement—Increased recharge accomplished by the modification of the land surface, streams, or lakes to increase seepage or infiltration rates or by the direct injection of water into the subsurface through wells.
- Surface water management entities—Political subdivisions as defined by Texas Water Code Chapter 15 and identified from Texas Commission on Environmental Quality records that are granted

authority under Texas Water Code Chapter 11 to store, take, divert, or supply surface water either directly or by contract for use within the boundaries of a district.

- Waste-- means any one or more of the following:
  - (A) withdrawal of groundwater from a groundwater reservoir at a rate and in an amount that causes or threatens to cause intrusion into the reservoir of water unsuitable for agricultural, gardening, domestic, or stock raising purposes;
  - (B) the flowing or producing of wells from a groundwater reservoir if the water produced is not used for a beneficial purpose;
  - (C) escape of groundwater from a groundwater reservoir to any other reservoir or geologic strata that does not contain groundwater;
  - (D) pollution or harmful alteration of groundwater in a groundwater reservoir by saltwater or by other deleterious matter admitted from another stratum or from the surface of the ground;
  - (E) willfully or negligently causing, suffering, or allowing groundwater to escape into any river, creek, natural watercourse, depression, lake, reservoir, drain, sewer, street, highway, road, or road ditch, or onto any land other than that of the owner of the well unless such discharge is authorized by permit, rule, or order issued by the commission under Chapter 26;
  - (F) groundwater pumped for irrigation that escapes as irrigation tailwater onto land other than that of the owner of the well unless permission has been granted by the occupant of the land receiving the discharge; or
  - (G) for water produced from an artesian well, "waste" also has the meaning assigned by Section 11.205.
- water supply need— the projected water demands that are in excess of existing water supplies for a water user group or wholesale water provider.
- recommended water management strategy — a specific project or action to increase water supply or maximize existing supply to meet a specific need.



Texas Water  
Development Board  
(TWDB)

Management Plan  
Checklist

# Texas Water Development Board

Groundwater Conservation District Management Plan Checklist, effective December 6, 2012

Official review     Prereview

District name: \_\_\_\_\_

Date plan received: \_\_\_\_\_

Reviewing staff: \_\_\_\_\_

Date plan reviewed: \_\_\_\_\_

A management plan shall contain, unless explained as not applicable, the following elements, 31 TAC §356.52(a):

	Citation of rule	Citation of statute	Present in plan and administratively complete	Source of data	Evidence that best available data was used	Notes
Is a paper hard copy of the plan available?	31 TAC §356.53(a)(1)					
Is an electronic copy of the plan available?	31 TAC §356.53(a)(2)					p.
1. Is an estimate of the modeled available groundwater in the District based on the desired future condition established under Section 36.108 included?	31 TAC §356.52(a)(5)(A)	TWC §36.1071(e)(3)(A)				p.
2. Is an estimate of the <u>amount of groundwater being used</u> within the District on an annual basis for at least the most recent five years included?	31 TAC §356.52(a)(5)(B); §356.10(2)	TWC §36.1071(e)(3)(B)				p.
For sections 3-5 below, each district must use the groundwater availability modeling information provided by the TWDB in conjunction with available site-specific information provided by the district when developing the required estimates, 31 TAC §356.52(c):						
3. Is an estimate of the annual <u>amount of recharge, from precipitation</u> , if any, to the groundwater resources within the District included?	31 TAC §356.52(a)(5)(C)	TWC §36.1071(e)(3)(C)				p.
4. For each aquifer in the district, is an estimate of the annual volume of <u>water that discharges from the aquifer</u> to springs and any surface water bodies, including lakes, streams and rivers, included?	31 TAC §356.52(a)(5)(D)	TWC §36.1071(e)(3)(D)				p.
5. Is an estimate of the annual volume of flow  a) <u>into the District</u> within each aquifer,  b) <u>out of the District</u> within each aquifer,  c) and <u>between aquifers</u> in the District,	31 TAC §356.52(a)(5)(E)	TWC §36.1071(e)(3)(E)				p.
						p.
						p.
if a groundwater availability model is available, included?						p.
6. Is an estimate of the <u>projected surface water supply</u> within the District according to the most recently adopted state water plan included?	31 TAC §356.52(a)(5)(F)	TWC §36.1071(e)(3)(F)				p.
7. Is an estimate of the <u>projected total demand for water</u> within the District according to the most recently adopted state water plan included?	31 TAC §356.52(a)(5)(G)	TWC §36.1071(e)(3)(G)				p.
8. Did the District consider and include the <u>water supply needs</u> from the adopted state water plan?		TWC §36.1071(e)(4)				p.
9. Did the District consider and include the <u>water management strategies</u> from the adopted state water plan?		TWC §36.1071(e)(4)				p.
10. Did the district include details of how it will manage groundwater supplies in the district	31 TAC §356.52(a)(4)					p.
11. Are the actions, procedures, performance, and avoidance necessary to effectuate the management plan, including <u>specifications and proposed rules</u> , all specified in as much detail as possible, included in the plan?		TWC §36.1071(e)(2)				p.
12. Was <u>evidence</u> that the plan was adopted, <u>after notice and hearing</u> , included? Evidence includes the posted agenda, meeting minutes, and copies of the notice printed in the newspaper(s) and/or copies of certified receipts from the county courthouse(s).	31 TAC §356.53(a)(3)	TWC §36.1071(a)				p.
13. Was <u>evidence</u> that, following notice and hearing, the District coordinated in the development of its management plan with regional surface water management entities?	31 TAC §356.51	TWC §36.1071(a)				p.
14. Has any available <u>site-specific information</u> been provided by the district to the executive administrator for review and comment before being used in the management plan when developing the <u>estimates</u> required in subsections 31 TAC §356.52(a)(5)(C),(D), and (E) ?	31 TAC §356.52(c)	TWC §36.1071(h)				p.

Mark an affirmative response with YES  
 Mark a negative response with NO  
 Mark a non-applicable checklist item with N/A

Management goals required to be addressed unless declared not applicable	Management goal (time-based and quantifiable) 31 TAC §356.51	Methodology for tracking progress 31TAC §356.52(a)(4)	Management objective(s) (specific and time-based statements of future outcomes) 31 TAC §356.52 (a)(2)	Performance standard(s) (measures used to evaluate the effectiveness of district activities) 31 TAC §356.52 (a)(3)	Notes
Providing the most efficient use of groundwater 31 TAC 356.52(a)(1)(A); TWC §36.1071(a)(1)	15)	16)	17)	18)	p.
Controlling and preventing waste of groundwater 31 TAC 356.52(a)(1)(B); TWC §36.1071(a)(2)	19)	20)	21)	22)	p.
Controlling and preventing subsidence 31 TAC 356.52(a)(1)(C); TWC §36.1071(a)(3)	23)	24)	25)	26)	p.
Addressing conjunctive surface water management issues 31 TAC 356.52(a)(1)(D); TWC §36.1071(a)(4)	27)	28)	29)	30)	p.
Addressing natural resource issues that impact the use and availability of groundwater and which are impacted by the use of groundwater 31 TAC 356.52(a)(1)(E); TWC §36.1071(a)(5)	31)	32)	33)	34)	p.
Addressing drought conditions 31 TAC 356.52(a)(1)(F); TWC §36.1071(a)(6)	35)	36)	37)	38)	p.
Addressing  a) conservation,  b) recharge enhancement,  c) rainwater harvesting,  d) precipitation enhancement, and  e) brush control  where appropriate and cost effective 31 TAC 356.52(a)(1)(G); TWC §36.1071(a)(7)	39)	40)	41)	42)	p.
	39a)	40a)	41a)	42a)	p.
	39b)	40b)	41b)	42b)	p.
	39c)	40c)	41c)	42c)	p.
	39d)	40d)	41d)	42d)	p.
	39e)	40e)	41e)	42e)	p.
Addressing the desired future conditions established under TWC §36.108. 31 TAC 356.52(a)(1)(H); TWC §36.1071(a)(8)	43)	44)	45)	46)	p.
Does the plan identify the performance standards and management objectives for effecting the plan? 31 TAC §356.52(a)(2)&(3); TWC §36.1071(e)(1)			47)	48)	

Mark required elements that are present in the plan with YES  
Mark any required elements that are missing from the plan with NO  
Mark plan elements that have been indicated as not applicable to the district with N/A

Texas Water  
Development Board  
(TWDB)

Groundwater  
Conservation District &  
Groundwater  
Management Plan  
FAQ's



# Groundwater Conservation District and Groundwater Management Plan FAQs

1. [How much groundwater is used in the state?](#)
2. [What is a groundwater management plan and what are its required elements?](#)
3. [What was the first groundwater management plan to be approved?](#)
4. [Are all GCDs required to develop a groundwater management plan?](#)
5. [How often are GCDs required to renew their management plan?](#)
6. [If a GCD amends its management plan before the statutory five-year limit, is it required to submit the plan to the TWDB for approval?](#)
7. [Who approves a GCD's management plan?](#)
8. [How long does it take TWDB to approve a management plan?](#)
9. [What action can a GCD take if the TWDB denies approval of its management plan?](#)
10. [Can a GCD get help from the TWDB in the development of its management plan?](#)
11. [What happens to my Groundwater Management Plan once the TWDB releases a new or updated Groundwater Availability Model?](#)
12. [Where can I find more information on the items required in a groundwater management plan for administrative completeness?](#)
13. [Is there a rule in Chapter 36 that addresses how transport and production fees can be used? Are the permit fees different from the production and transport fees?](#)
14. [Does the TWDB have information about the budgets and expenditures for GCDs?](#)
15. [Who should I contact for more information about groundwater management plans?](#)

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## Answers to Frequently Asked Questions

### 1. How much groundwater is used in the state?

In 2015, the total reported groundwater usage in the state was approximately 6.95 million acre-feet, and the total reported groundwater usage in all confirmed GCDs was approximately 90 percent of all groundwater used, or about 6.26 million acre-feet (TWDB Estimated Historical Water Use Survey (WUS)).

### 2. What is a groundwater management plan and what are its required elements?

A groundwater management plan describes a GCD's groundwater management goals. A groundwater management plan is statutorily required to address the management goals and information listed below (Texas Water Code §36.1071 - §36.1073; 31 Texas Administrative Code 356.10, 356.51-356.54)

#### Goals:

- providing the most efficient use of groundwater;
- controlling and preventing waste of groundwater;
- controlling and preventing subsidence;
- addressing conjunctive surface water management issues;
- addressing natural resource issues that impact the use and availability of groundwater, and which are impacted by the use of groundwater;
- addressing drought conditions;
- addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, and brush control, where appropriate and cost-effective; and
- addressing the desired future conditions established pursuant to the Texas Water Code.

#### Information:

- performance standards and management objectives under which the GCD will operate to achieve its management goals;
- details of how the GCD will manage groundwater supplies in the district, including a methodology by which the GCD will track its progress in achieving its management goals;
- detailed descriptions of actions, procedures, performance and avoidance that are, or may be necessary, to effect the plan including specifications and proposed rules;
- estimates of the following:
  - modeled available groundwater (MAG) in the GCD based on the desired future condition (DFC) established under Texas Water Code §36.108;
  - the amount of groundwater being used within the GCD on an annual basis;
  - the annual amount of recharge from precipitation, if any, to the groundwater resources within the GCD;
  - the annual volume of water that discharges from each aquifer in the GCD to springs and surface water bodies;
  - the annual volumes of flow into and out of the GCD within each aquifer and between aquifers in the GCD if a groundwater availability model is present;
  - the projected surface water supply in the GCD according to the most recent state water plan;
  - the projected total demand for water within the GCD according to the most recent state water plan; and
- consideration of the water supply needs and water management strategies within the county(s) covered by the GCD according to the most recent state water plan.

### **3. What was the first groundwater management plan to be approved?**

The first groundwater management plan to be approved by the TWDB was the Gonzales County UWCD's plan in 1998.

### **4. Are all GCDs required to develop a groundwater management plan?**

Yes. All GCDs are required to develop a groundwater management plan and submit it to the TWDB for approval. A newly created GCD is required to submit its management plan no later than three years after its creation. If a GCD requires a confirmation election after its creation, a management plan should be submitted no later than three years after the confirmation election (Texas Water Code §36.1072 [a-1]).

### **5. How often are GCDs required to renew their management plan?**

A GCD is required to review and readopt its management plan with or without revisions, and submit it to the TWDB for approval, at least once every five years. It can however, review and submit its plan more frequently if it desires (Texas Water Code §36.1072 [e]).

### **6. If a GCD amends its management plan before the statutory five-year limit, is it required to submit the plan to the TWDB for approval?**

If the district proposes to amend its plan for revisions of items other than the MAG or DFC, the district shall submit a written copy of the proposed amendment to TWDB's Executive Administrator so that he may determine whether the amendment requires approval. If the amendment requires approval, it should be submitted to the TWDB within 60 days of being adopted by the district (31 Texas Administrative Code 356.56). Changes in the DFC and/or MAG are changes that require approval.

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### **7. Who approves a GCD's management plan?**

The TWDB Executive Administrator is charged with reviewing and approving a GCD's groundwater management plan as being administratively complete. The TWDB will notify the GCD in writing of its determination (Texas Water Code §36.1072; 31 Texas Administrative Code 356.54).

### **8. How long does it take TWDB to approve a management plan?**

The TWDB is required to make its determination on a management plan within 60 days of receiving all elements of a plan (Texas Water Code §36.1072).

### **9. What action can a GCD take if the TWDB denies approval of its management plan?**



A GCD has two choices: it can revise and resubmit its plan within 180 days of receiving notification from the TWDB, or it can, within 60 days, appeal the executive administrator's decision to the TWDB Board members (Texas Water Code §36.1072; Texas Administrative Code 356.55).

#### **10. Can a GCD get help from the TWDB in the development of its management plan?**

Yes. The TWDB can provide technical assistance to a district in the development of its management plan. This consists of at least one preliminary review, if requested, and comment on the plan prior to its adoption by the GCD. If a GCD requests a preliminary review of its draft plan the TWDB can usually provide its comments within 30 days of the date of the request. The TWDB will review management plans in the order in which they are received. A preliminary review is not required but is highly recommended to make the approval process more efficient.

#### **11. What happens to my Groundwater Management Plan once the TWDB releases a new or updated Groundwater Availability Model?**

Nothing needs to change in your GCD's Management Plan upon release of a new or updated Groundwater Availability Model. However, the TWDB offers two options if you intend to update your management plan in the next year prior to your next management plan expiration date or deadline to amend your plan with modeled available groundwater values:

- 1) Send a request in writing to the TWDB if you would like to receive new groundwater budget values calculated by the TWDB. Once you receive the updated groundwater budget values, you only need to make an amendment to the plan by replacing the old budget values in text, tables, and appendices with the updated budget numbers. There is no requirement to update groundwater budget values outside of regular plan adoption.
- 2) Do nothing. The TWDB will provide updated budget values in accordance with your GCD's management plan expiration date, even if you do not request the new groundwater budget values after release of a new groundwater availability model.

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#### **12. Where can I find more information on the items required in a groundwater management plan for administrative completeness?**

A checklist of items required for a management plan to be approved as administratively complete is available [here](#).

#### **13. Is there a rule in Chapter 36 that addresses how transport and production fees can be used? Are the permit fees different from the production and transport fees?**

Section 36.205(c) of the Texas Water Code states that a GCD can use the revenues generated by production fees for "any lawful purpose." Section 36.205(g) says transport fees may be assessed pursuant to §36.122. Under Section 36.122, it says, in subsection (l), that a GCD is prohibited from using revenues obtained from the transport fee to prohibit the transfer of groundwater outside of a GCD but is not prohibited from using revenues for paying expenses related to enforcement of Chapter 36 or the GCD's rules.

#### **14. Does the TWDB have information about the budgets and expenditures for GCDs?**

Our agency does not track individual GCD budgets and expenditures except if a GCD applies for a loan or grant with us. Currently, only a few GCDs have loans or grants. Please contact GCDs directly for budget information; these data are sometimes posted on their websites.

#### **15. Who should I contact for more information about groundwater management plans?**

The Groundwater Technical Assistance team will be happy to assist you with any questions you have about groundwater management plans. Contact us at 512-463-7317.

# State Water Plan Table Definitions

## Data Definitions\*

### 1. Projected Water Demands\*

From the 2012 State Water Plan Glossary: "**WATER DEMAND** Quantity of water projected to meet the overall necessities of a water user group in a specific future year." (See 2012 State Water Plan Chapter 3 for more detail.)

**Additional explanation:** These are water demand volumes as projected for specific Water User Groups in the 2011 Regional Water Plans. This is NOT groundwater pumpage or demand based on any existing water source. This demand is how much water each Water User Group is projected to require in each decade over the planning horizon.

### 2. Projected Surface Water Supplies\*

From the 2012 State Water Plan Glossary: "**EXISTING [surface] WATER SUPPLY** - Maximum amount of [surface] water available from existing sources for use during drought of record conditions that is physically and legally available for use." (See 2012 State Water Plan Chapter 5 for more detail.)

**Additional explanation:** These are the existing surface water supply volumes that, without implementing any recommended WMSs, could be used during a drought (in each planning decade) by Water User Groups located within the specified geographic area.

### 3. Projected Water Supply Needs\*

From the 2012 State Water Plan Glossary: "**NEEDS** -Projected water demands in excess of existing water supplies for a water user group or a wholesale water provider." (See 2012 State Water Plan Chapter 6 for more detail.)

**Additional explanation:** These are the volumes of water that result from comparing each Water User Group's projected existing water supplies to its projected water demands. If the volume listed is a negative number, then the Water User Group shows a projected need during a drought if they do not implement any water management strategies. If the volume listed is a positive number, then the Water User Group shows a projected surplus. Note that if a Water User Group shows a need in any decade, then they are considered to have a potential need during the planning horizon, even if they show a surplus elsewhere.

### 4. Projected Water Management Strategies\*

From the 2012 State Water Plan Glossary: "**RECOMMENDED WATER MANAGEMENT STRATEGY** - Specific project or action to increase water supply or maximize existing supply to meet a specific need." (See 2012 State Water Plan Chapter 7 for more detail.)

**Additional explanation:** These are the specific water management strategies (with associated water volumes) that were recommended in the 2011 Regional Water Plans.

*\*Terminology used by TWDB staff in providing data for 'Estimated Historical Water Use And 2012 State Water Plan Datasets' reports issued by TWDB.*

# Public Comments Received

Ted Boriack  
2984 FM1296 Waelder TX 78959  
361-443-2547 tedboriack@gmail.com

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October 10, 2023

TO: Gonzales County Underground Water Conservation GCUWCD  
GCUWCD Board members and General Manager by email:

Laura Martin - General Manager generalmanager@gcuwcd.org  
522 Saint Matthew Street Gonzales, Texas 78629

SUBJECT: Comments on the draft GCUWCD Management Plan Revision 5.0: November 14, 2023

FROM: Ted A. Boriack tedboriack@gmail.com  
2984 FM1296 Waelder, TX 78959  
361-443-2547

After review of GCUWCDs draft Management Plan dated Revision 5.0: November 14, 2023 which I downloaded from the district website (gcuwcd.org), please note my following comments:

I ask that the GCUWCD board members to not approve the draft management plan due to the following:

1. The GCUWCD prepared the draft management plan and issued a draft for potential approval by the GCUWCD board members without holding a single workshop to address the concerns of the local stakeholders. Also, the management plan fails to address many of the public comments raised by local stakeholders in the past about the massive pumping and export of groundwater approved by the GCUWCD board members.

2. The public notice for the management plan dated October 4, 2023 includes a statement:

*Members of the public wishing to comment must attend the meeting in-person. No participation or public comments will be allowed via video or conference call. However, any person may view or listen to the meeting via audio and video conference call.*

In my opinion this public comment restriction is in violation of the intent of the Texas Open Meetings Act and also the Americans with Disabilities Act. This requirement unnecessarily restricts input from the public. Other groundwater related entities such as the Region L planning group and the Texas Groundwater Protection Committee allow public comment by video or conference call. People that attend the meeting in person are potentially exposed to viruses from others at the meeting, and some people may have difficulty in physically attending the meeting due to health issues, disability or transportation challenges such as driving at night.



3. The draft resolution for adopting the groundwater management plan includes the following statement: (yellow hilite added)

*WHEREAS, after providing notice and holding a public hearing, the Board of Directors of the Gonzales County Underground Water Conservation District has developed a Management Plan in accordance with the statutory requirements and utilizing the best available science, attached hereto and incorporated herein for purposes.*

However, it's clear that the draft groundwater management plan does not include "the best available science" such as addressing subsidence, and applying more detailed groundwater models for addressing high drawdowns due to large pumps.

4. The draft resolution for adopting the groundwater management plan includes signature lines for only two board members (Bruce Tieken, Barry Miller) which is not a quorum. Any resolution by the board should include signatures by all board members that voted to approve the management plan so the public can understand who actually approved the management plan and that approvals from board members were in fact obtained. This should be evident by the final approved management plan with signatures.
5. The draft management plan that I downloaded from the GCUWCD website is not a proper draft for review by the public due to the way in which it was redlined. The draft includes some language that was existing in the current management plan being shown as red font which is supposed to show new text. The draft management plan also includes some text in red font but with a strikethrough which usually means there was a prior redline version and a change was then made in a subsequent draft. The draft management plan also includes various sections in yellow hilite which are confusing as to what is intended. Any text in the current management plan (the plan intended to be revised) if not to be changed should be shown as black text, and text in the current management plan intended to be deleted should be in red font with a strikethrough line, any new text should be added with red font.
6. Below is an extract from the draft management plan – this is the District Mission.

#### **1.0 DISTRICT MISSION**

The mission of the Gonzales County Underground Water Conservation District ("GCUWCD" or "District") is to conserve, preserve, protect, and prevent waste of groundwater resources. It shall be the policy of the Board of Directors that the most efficient use of groundwater in the District is to provide for the needs of the citizens and ensure growth for future generations. The Board of Directors, with the cooperation of the citizens of the District, shall implement this management plan and its accompanying rules to achieve this goal. If it appears this management plan, or production ~~limits~~ limits do not achieve the desired ~~future~~ future conditions the District will amend them. GCUWCD shall also establish, as part of this plan, the policies of water conservation, public information and technical research by cooperation and coordination with the citizens of the District and equitable enforcement of this plan and its accompanying rules.

The word addition (red font) provided in the draft is not acceptable because the language is confusing. "Them" is preceded in the same sentence with "management plan", "production limits" and "desired future conditions". The prior sentence also refers to "rules". The

proposed wording is confusing and leaves the reader wondering just what is "them".

7. Below is an extract from the draft management plan – this is from Section 2.0 PURPOSE OF THE MANAGEMENT PLAN.

**2.0 PURPOSE OF THE MANAGEMENT PLAN**

Senate Bill 1, enacted in 1997, and Senate Bill 2, enacted in 2001, established a comprehensive statewide planning process, including requirements for groundwater conservation districts ("GCDs") under the Texas Water Code Chapter 36 to manage and conserve the groundwater resources of the State of Texas. Section 36.1071, Water Code, requires that each groundwater conservation district develop a management plan that addresses the following management goals, as applicable: (1) providing the most efficient use of groundwater, (2) controlling and preventing waste of groundwater, (3) controlling and preventing subsidence, (4) addressing conjunctive surface water management issues, (5) addressing natural resource issues that impact the use and availability of groundwater, and which are impacted by the use of groundwater, (6) addressing drought conditions, (7) addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost-effective, and (8) addressing the desired future conditions adopted by the district under Section 36.108.

The word addition (red font) provided in the draft is not acceptable because the language is not consistent with Section 36.1071 of the Water Code. The part (5) above according to Section 36.1071 of the Water Code states " 5) addressing natural resource issues;" It does not include the additional restriction added by GCUWCD in the draft "that impact the use and availability of groundwater, and which are impacted by the use of groundwater;". Further, the proposed text addition is confusing as written.

8. Referring to Section 5.0 DESIRED FUTURE CONDITIONS AND MODELED AVAILABLE GROUNDWATER, the draft has been revised with red font text additions. The draft should include language that explains how the modeled available groundwater values are applied by the GCUWCD in its decision making, rules and planning.
9. I saw no information in the draft management plan on the subject of well mitigation. This is a major issue and should be incorporated in the approved management plan. A workshop is essential to incorporate the input of stake holders impacted by the management plan.
10. The management plan needs to address the taking of groundwater from landowners that are not participating in groundwater leases with pumping entities with large wells that export the water outside the district. The GCUWCD is granting permits for very large production with well spacings that do not adequately protect these landowners which include family farms and ranches that depend on their groundwater. As I have previously submitted to GCUWCD, taking of groundwater without a written agreement by the owner of the landowner or water rights owner is taking of personal property which is in conflict with the Texas Constitution Article 1 Bill of Rights sections 9, 17 and 19. The production volumes being permitted by GCUWCD are far in excess of the aquifer recharge rate, therefore the volumes taken are permanent and no longer available to landowners for their own production. This is clearly taking of personal property and should be addressed in the management plan.

11. Referring to Section 8.9 Subsidence in the draft management plan, it states:

**8.9 Subsidence**

Subsidence is not a relevant factor with the aquifers managed by this District; the District includes a portion of the Gulf Coast Aquifer, which is known for its susceptibility to subsidence, but the District's creation order does not give the District any jurisdiction over the Gulf Coast Aquifer.

This is not correct according to a study commissioned by the Texas Water Development Board which addresses subsidence in the Carrizo-Aquifer :

**Final Report: Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062**

Prepared By

Jordan Furnans, Ph.D., P.E., P.G., Michael Keester, P.G., Dave Colvin, P.G., PMP, Jacob Bauer, P.G. (WY), Joel Barber, P.E. (CO), Gary Gin, P.G., LRE Water, LLC, Velma Danielson, Lori Erickson, Robert Ryan, Blanton & Associates, Inc., Kaveh Khorzad, P.G., Andrew Worsley, Wet Rock Groundwater Services, LLC, Grant Snyder, P.G., GLS Solutions, Inc.  
March 21, 2017

Final Report: Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062

**Table 1.2. High total weighted risk by aquifer (ranked by third quartile cutoff).**

Aquifer	Aquifer Type	Predominant Aquifer Lithology	Number of Wells Analyzed	Average Aquifer Thickness (ft)	Average Clay Thickness within Aquifer (ft)	Estimated Water Level Trend (negative for decline) (ft/year)	Third Quartile Cutoff on Total Weighted Risk for All Wells Analyzed in Aquifer	Weighted Subsidence Risk Category
Gulf Coast	Major	Unconsolidated Clastic	105,292	650	66	-0.000167	5.9	High: Subsidence Risk is high with high subsidence risk in large areas of the aquifer
Yegua-Jackson	Minor	Unconsolidated Clastic	3,373	828	110	0.0000372	5.9	
Pecos Valley	Major	Unconsolidated Clastic	1,952	549	36	-0.266	5.5	
Hueco-Mesilla Bolson	Major	Unconsolidated Clastic	2,360	810	23	-0.00276	5.4	
Brazos River Alluvium	Minor	Unconsolidated Clastic	985	54	1	-0.000237	5.3	
Ogallala	Major	Unconsolidated Clastic	63,522	223	17	-0.864	5.2	
Carrizo-Wilcox	Major	Unconsolidated Clastic	23,519	401	66	-0.332	4.7	

The management plan decrees that subsidence is “not a relevant factor” but provides no technical basis or best available science for how it came to such conclusion. The management plan clearly needs to address subsidence and groundwater modeling requirements to ensure that permitted wells do not cause subsidence. This is necessary to avoid future problems and impact on land owners. Further, the management plan should include a subsidence monitoring plan to monitor the impacts of the permitted production.

There is much more that I could write about the problems and shortfalls of the draft management plan, but the above is reason enough for not approving the draft management plan in its current form. The management also fails to address many other issues including the massive socio-economic impacts on the farms and ranches impacted by the GCUWCD. It is clear that the draft management plan is incomplete and contains errors, was drafted in absence of a workshop with local stakeholders, and is not ready for approval.

**DUNBAR LAW FIRM, PLLC**  
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ldunbar@dunbarlawtx.com

October 10, 2023

To:  
GCUWCD  
Attn: Laura Martin, District Manager  
522 St. Matthew Street  
Gonzales, Texas 78629  
Delivered Via email

Dear Ms. Martin,

The Dunbar Law Firm, PLLC represents Mark Ploeger, both individually and as representative of the Water Protection Association (WPA), along with Sally Ploeger and Mary Ann Menning and along with our clients we have reviewed the draft of the Proposed Additions and Amendments to the District's Management Plan, ("the Plan"), posted on the GCUWCD website upon or about September 19, 2023. The Plan is in excess of 70 plus pages and appears already to have an adoption date of November 14, 2023, which is of serious concern when considering the required public process of adopting such a plan.

As stated in Section 8.15 Public Information, "A well informed public is vital to the proper operation of a groundwater conservation district." Some of the data contained within the proposed plan is concerning, such as the apparent combining of data for the referred Carrizo-Wilcox Aquifer, which upon belief has previously been regarded as two separate aquifers. Also, there seems to be an unclear indication of GAM models used throughout the proposed Plan that are perplexing and do not warrant hasty adoption. In addition, the specific desired future conditions of each aquifer should be identified in the management plan along with the managed available groundwater.

Therefore, we are requesting on behalf of our clients that the Board table the adoption of the Proposed Additions and Amendments to the District's Management Plan during tonight's scheduled meeting and request next month that the District provide a public workshop for all who wish to attend and have concerns or questions about the Board's Proposals and Amendments so that the Board members are in keeping with the District's intention of Section 8.15

If additional information is required or desired, feel free to contact either Lawrence G. Dunbar or Autumn L. Selman at the Dunbar Law Firm, PLLC.

*Lawrence G. Dunbar*

---

Lawrence G. Dunbar, Attorney,

Dunbar Law Firm, PLLC

AND

A handwritten signature in black ink, appearing to read "Autumn L. Selman", written over a horizontal line.

Autumn L. Selman  
Paralegal and Executive Legal Assistant to Lawrence G. Dunbar,  
Case Manager, Dunbar Law Firm, PLLC

Cc: Mark Ploeger, Sally Ploeger, Mary Ann Menning



Ted Boriack <tedboriack@gmail.com>

---

## Fwd: Boriack comments on GCUWCD draft management plan

1 message

Tue, Nov 7, 2023 at 4:53 PM

**Ted Boriack** <tedboriack@gmail.com>  
To: General Manager <generalmanager@gcuwcd.org>

General Manager.

I saw the notice from the GCUWCD for comments on the management plan for a workshop to be held today. I looked at the GCUWCD website and did not see an updated draft of the management plan -- appears to be the same draft that I previously commented on per my prior email on October 10, 2023. At the last hearing I stated many reasons why the draft management plan was incomplete and not ready for approval. I restate those same reasons today since the draft management plan posted on the GCUWCD website is the same.

Ted Boriack  
2984 FM1296  
Waelder, TX 78959

----- Forwarded message -----

From: **Ted Boriack** <tedboriack@gmail.com>  
Date: Tue, Oct 10, 2023 at 3:47 PM  
Subject: Boriack comments on GCUWCD draft management plan  
To: General Manager <generalmanager@gcuwcd.org>

Please see my comments to the draft GCUWCD management plan.

Ted Boriack  
2984 FM1296  
Waelder, TX 78959

---

 **Boriack comments on GCUWCD draft mgt plan Oct 10 2023.pdf**  
1427K



Ted Boriack  
2984 FM1296 Waelder TX 78959  
361-443-2547 tedboriack@gmail.com

---

October 10, 2023

TO: Gonzales County Underground Water Conservation GCUWCD

GCUWCD Board members and General Manager by email:

Laura Martin - General Manager generalmanager@gcuwcd.org

522 Saint Matthew Street Gonzales, Texas 78629

SUBJECT: Comments on the draft GCUWCD Management Plan Revision 5.0: November 14, 2023

FROM: Ted A. Boriack tedboriack@gmail.com

2984 FM1296 Waelder, TX 78959

361-443-2547

After review of GCUWCDs draft Management Plan dated Revision 5.0:November 14, 2023 which I downloaded from the district website (gcuwcd.org), please note my following comments:

I ask that the GCUWCD board members to not approve the draft management plan due to the following:

1. The GCUWCD prepared the draft management plan and issued a draft for potential approval by the GCUWCD board members without holding a single workshop to address the concerns of the local stakeholders. Also, the management plan fails to address many of the public comments raised by local stakeholders in the past about the massive pumping and export of groundwater approved by the GCUWCD board members.

2. The public notice for the management plan dated October 4, 2023 includes a statement:

*Members of the public wishing to comment must attend the meeting in-person. No participation or public comments will be allowed via video or conference call. However, any person may view or listen to the meeting via audio and video conference call.*

In my opinion this public comment restriction is in violation of the intent of the Texas Open Meetings Act and also the Americans with Disabilities Act. This requirement unnecessarily restricts input from the public. Other groundwater related entities such as the Region L planning group and the Texas Groundwater Protection Committee allow public comment by video or conference call. People that attend the meeting in person are potentially exposed to viruses from others at the meeting, and some people may have difficulty in physically attending the meeting due to health issues, disability or transportation challenges such as driving at night.

3. The draft resolution for adopting the groundwater management plan includes the following statement: (yellow hilite added)

*WHEREAS, after providing notice and holding a public hearing, the Board of Directors of the Gonzales County Underground Water Conservation District has developed a Management Plan in accordance with the statutory requirements and utilizing the best available science, attached hereto and incorporated herein for purposes.*

However, it's clear that the draft groundwater management plan does not include "the best available science" such as addressing subsidence, and applying more detailed groundwater models for addressing high drawdowns due to large pumps.

4. The draft resolution for adopting the groundwater management plan includes signature lines for only two board members (Bruce Tieken, Barry Miller) which is not a quorum. Any resolution by the board should include signatures by all board members that voted to approve the management plan so the public can understand who actually approved the management plan and that approvals from board members were in fact obtained. This should be evident by the final approved management plan with signatures.
5. The draft management plan that I downloaded from the GCUWCD website is not a proper draft for review by the public due to the way in which it was redlined. The draft includes some language that was existing in the current management plan being shown as red font which is supposed to show new text. The draft management plan also includes some text in red font but with a strikethrough which usually means there was a prior redline version and a change was then made in a subsequent draft. The draft management plan also includes various sections in yellow hilite which are confusing as to what is intended. Any text in the current management plan (the plan intended to be revised) if not to be changed should be shown as black text, and text in the current management plan intended to be deleted should be in red font with a strikethrough line, any new text should be added with red font.
6. Below is an extract from the draft management plan – this is the District Mission.

#### 1.0 DISTRICT MISSION

The mission of the Gonzales County Underground Water Conservation District ("GCUWCD" or "District") is to conserve, preserve, protect, and prevent waste of groundwater resources. It shall be the policy of the Board of Directors that the most efficient use of groundwater in the District is to provide for the needs of the citizens and ensure growth for future generations. The Board of Directors, with the cooperation of the citizens of the District, shall implement this management plan and its accompanying rules to achieve this goal. **If it appears this management plan, or production limits do not achieve the desired future conditions the District will amend them.** GCUWCD shall also establish, as part of this plan, the policies of water conservation, public information and technical research by cooperation and coordination with the citizens of the District and equitable enforcement of this plan and its accompanying rules.

The word addition (red font) provided in the draft is not acceptable because the language is confusing. "Them" is preceded in the same sentence with "management plan", "production limits" and "desired future conditions". The prior sentence also refers to "rules". The



proposed wording is confusing and leaves the reader wondering just what is "them".

7. Below is an extract from the draft management plan – this is from Section 2.0 PURPOSE OF THE MANAGEMENT PLAN.

**2.0 PURPOSE OF THE MANAGEMENT PLAN**

Senate Bill 1, enacted in 1997, and Senate Bill 2, enacted in 2001, established a comprehensive statewide planning process, including requirements for groundwater conservation districts ("GCDs") under the Texas Water Code Chapter 36 to manage and conserve the groundwater resources of the State of Texas. Section 36.1071, Water Code, requires that each groundwater conservation district develop a management plan that addresses the following management goals, as applicable: (1) providing the most efficient use of groundwater, (2) controlling and preventing waste of groundwater, (3) controlling and preventing subsidence, (4) addressing conjunctive surface water management issues, (5) addressing natural resource issues **that impact the use and availability of groundwater, and which are impacted by the use of groundwater;** (6) addressing drought conditions, (7) addressing conservation, recharge enhancement, rainwater **harvesting**, precipitation enhancement, or brush control, where appropriate and cost-effective, and (8) addressing the desired future conditions adopted by the district under Section 36.108.

The word addition (red font) provided in the draft is not acceptable because the language is not consistent with Section 36.1071 of the Water Code. The part (5) above according to Section 36.1071 of the Water Code states " 5) addressing natural resource issues;" It does not include the additional restriction added by GCUWCD in the draft "that impact the use and availability of groundwater, and which are impacted by the use of groundwater;". Further, the proposed text addition is confusing as written.

8. Referring to Section 5.0 DESIRED FUTURE CONDITIONS AND MODELED AVAILABLE GROUNDWATER, the draft has been revised with red font text additions. The draft should include language that explains how the modeled available groundwater values are applied by the GCUWCD in its decision making, rules and planning.
9. I saw no information in the draft management plan on the subject of well mitigation. This is a major issue and should be incorporated in the approved management plan. A workshop is essential to incorporate the input of stake holders impacted by the management plan.
10. The management plan needs to address the taking of groundwater from landowners that are not participating in groundwater leases with pumping entities with large wells that export the water outside the district. The GCUWCD is granting permits for very large production with well spacings that do not adequately protect these landowners which include family farms and ranches that depend on their groundwater. As I have previously submitted to GCUWCD, taking of groundwater without a written agreement by the owner of the landowner or water rights owner is taking of personal property which is in conflict with the Texas Constitution Article 1 Bill of Rights sections 9, 17 and 19. The production volumes being permitted by GCUWCD are far in excess of the aquifer recharge rate, therefore the volumes taken are permanent and no longer available to landowners for their own production. This is clearly taking of personal property and should be addressed in the management plan.

11. Referring to Section 8.9 Subsidence in the draft management plan, it states:

**8.9 Subsidence**

Subsidence is not a relevant factor with the aquifers managed by this District; the District includes a portion of the Gulf Coast Aquifer, which is known for its susceptibility to subsidence, but the District's creation order does not give the District any jurisdiction over the Gulf Coast Aquifer.

This is not correct according to a study commissioned by the Texas Water Development Board which addresses subsidence in the Carrizo-Aquifer :

**Final Report: Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062**

Prepared By

Jordan Furnans, Ph.D., P.E., P.G., Michael Keester, P.G., Dave Colvin, P.G., PMP, Jacob Bauer, P.G. (WY), Joel Barber, P.E. (CO), Gary Gin, P.G., LRE Water, LLC, Velma Danielson, Lori Erickson, Robert Ryan, Blanton & Associates, Inc., Kaveh Khorzad, P.G., Andrew Worsley, Wet Rock Groundwater Services, LLC, Grant Snyder, P.G., GLS Solutions, Inc.  
March 21, 2017

Final Report: Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping – TWDB Contract Number 1648302062

**Table 1.2. High total weighted risk by aquifer (ranked by third quartile cutoff).**

Aquifer	Aquifer Type	Predominant Aquifer Lithology	Number of Wells Analyzed	Average Aquifer Thickness (ft)	Average Clay Thickness within Aquifer (ft)	Estimated Water Level Trend (negative for decline) (ft/year)	Third Quartile Cutoff on Total Weighted Risk for All Wells Analyzed in Aquifer	Weighted Subsidence Risk Category
Gulf Coast	Major	Unconsolidated Clastic	105,292	650	66	-0.000167	5.9	High: Subsidence Risk is high with high subsidence risk in large areas of the aquifer
Yegua-Jackson	Minor	Unconsolidated Clastic	3,373	828	110	0.0000372	5.9	
Pecos Valley	Major	Unconsolidated Clastic	1,952	549	36	-0.266	5.5	
Hueco-Mesilla Bolson	Major	Unconsolidated Clastic	2,360	810	23	-0.00276	5.4	
Brazos River Alluvium	Minor	Unconsolidated Clastic	985	54	1	-0.000237	5.3	
Ogallala	Major	Unconsolidated Clastic	63,522	223	17	-0.864	5.2	
Carrizo-Wilcox	Major	Unconsolidated Clastic	23,519	401	66	-0.332	4.7	

The management plan decrees that subsidence is “not a relevant factor” but provides no technical basis or best available science for how it came to such conclusion. The management plan clearly needs to address subsidence and groundwater modeling requirements to ensure that permitted wells do not cause subsidence. This is necessary to avoid future problems and impact on land owners. Further, the management plan should include a subsidence monitoring plan to monitor the impacts of the permitted production.

There is much more that I could write about the problems and shortfalls of the draft management plan, but the above is reason enough for not approving the draft management plan in its current form. The management also fails to address many other issues including the massive socio-economic impacts on the farms and ranches impacted by the GCUWCD. It is clear that the draft management plan is incomplete and contains errors, was drafted in absence of a workshop with local stakeholders, and is not ready for approval.



# **GCUWCD Draft Management Plan 2024**

.....

GONZALES COUNTY  
UNDERGROUND WATER CONSERVATION DISTRICT

# MANAGEMENT PLAN

.....

**Original:** February 10, 1998

**Revision 1.0:** July 8, 2003

**Revision 2.0:** May 14, 2009

**Revision 3.0:** February 18, 2014

**Revision 4.0:** November 13, 2018

**Revision 5.0:** November 14, 2023

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**Appendix 2 Public Notices for Adoption of Management Plan**

**Appendix 3 Certified Mail Receipts from Surface Water Management Entities**

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**Appendix 5 GAM Run 21-018 MAG**

**Appendix 6 Part 1 - Estimated Historical Use and 2022 State water Plan Datasets**

**Appendix 7 Part 2 – Groundwater Availability Model Report GAM Run 21-018**

**Appendix 8 References**

## 1.0 — DISTRICT MISSION

The mission of the Gonzales County Underground Water Conservation District (“GCUWCD” or “District”) is to conserve, preserve, protect, and prevent waste of groundwater resources. It shall be the policy of the Board of Directors that the most efficient use of groundwater in the District is to provide for the needs of the citizens and ensure growth for future generations. The Board of Directors, with the cooperation of the citizens of the District, shall implement this management plan and its accompanying rules to achieve this goal. If it appears this management plan, or production limits do not achieve the desired future conditions (DFC’s) the District will amend the management plan, or production limits. GCUWCD shall also establish, as part of this plan, the policies of water conservation, public information and technical research by cooperation and coordination with the citizens of the District and equitable enforcement of this plan and its accompanying rules.

## 2.0 PURPOSE OF THE MANAGEMENT PLAN

Senate Bill 1, enacted in 1997, and Senate Bill 2, enacted in 2001, established a comprehensive statewide planning process, including requirements for groundwater conservation districts (“GCDs”) under the Texas Water Code Chapter 36 to manage and conserve the groundwater resources of the State of Texas. Section 36.1071, Water Code, requires that each groundwater conservation district develop a management plan that addresses the following management goals, as applicable: (1) providing the most efficient use of groundwater, (2) controlling and preventing waste of groundwater, (3) controlling and preventing subsidence, (4) addressing conjunctive surface water management issues, (5) addressing natural resource issues that impact the use and availability of groundwater, and which are impacted by the use of groundwater; (6) addressing drought conditions, (7) addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost-effective, and (8) addressing the desired future conditions adopted by the district under Section 36.108.

House Bill 1763, enacted in 2005, requires joint planning among GCDs within the same Groundwater Management Area (“GMA”). These Districts must establish the Desired Future Conditions (“DFCs”) of the aquifers within their respective GMAs. Through this process, the GCDs will submit the DFCs of the aquifer to the executive administrator of the Texas Water Development Board (“TWDB”). The TWDB will calculate the modeled available groundwater (“MAG”) in each District within the management area based upon the submitted DFCs of the aquifer within the GMA. Technical information, such as the DFCs of the aquifers within the District’s jurisdiction and the amount of MAG from such aquifers is required by statute to be included in the District’s management plan and will guide the District’s regulatory and management policies.

## 3.0 DISTRICT INFORMATION

### 3.1 Creation

The GCUWCD was created on an order of the Texas Commission on Environmental Quality (TCEQ), formerly the Texas Natural Resource Conservation Commission (TNRCC), on November 19, 1993. A copy of TNRCC order number 101692-DO4, approving the petition for creation of the GCUWCD, is available on the District’s website at: <http://www.gcuwcd.org/documentsandforms.html>.

### 3.2 Directors

The GCUWCD Board of Directors is comprised of five (5) members elected from single member districts. The Board of Directors meets in regular sessions on the second Tuesday each month in the City of Gonzales, Texas. All meetings of the Board of Directors are open to the public as set forth in the Texas Open Meetings

Act, Title 5, Chapter 551 of the Texas Government Code, and advanced written notices of such meetings are posted as required.

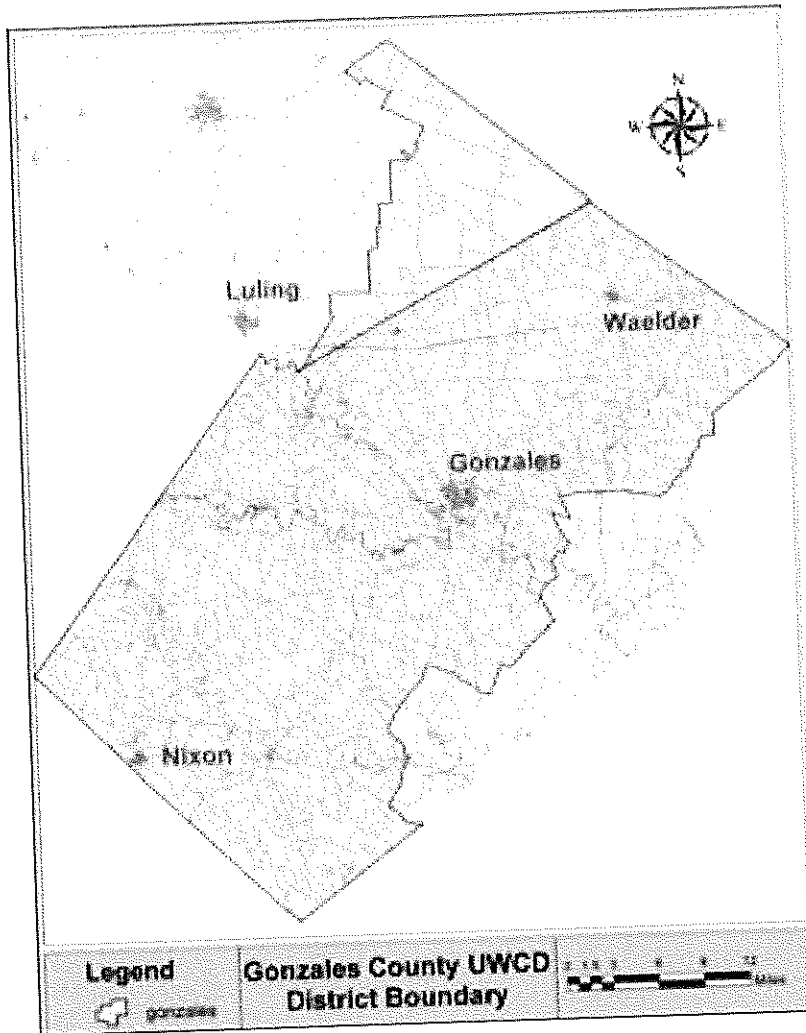
### **3.3 Authority of the District**

As stated in TNRCC order number 101692-DO4, the GCUWCD has all the rights, powers, privileges, authority, and functions conferred by, and subject to all duties imposed by, the TCEQ and the general laws of the State of Texas relating to groundwater conservation districts. The District is governed by the provisions of Texas Water Code (TWC) Chapter 36 and 31 Texas Administrative Code (TAC) Chapter 356.

### **3.4 District Boundaries**

GCUWCD serves the areas of Gonzales County and the southeast portion of Caldwell County (**Figure 1**). Gonzales County is bounded by Guadalupe, Wilson, Karnes, DeWitt, Lavaca, Fayette and Caldwell counties. There are approximately 677,000 acres in Gonzales County, of which 101,000 acres are excluded from the District leaving 576,000 acres within the boundaries of the county. Incorporated towns within Gonzales County include Gonzales, Waelder, Nixon, and Smiley. In December 2007, GCUWCD approved a resolution to annex the southeastern portion of Caldwell County into the District. An election was held in Caldwell County on May 10, 2008, with voters approving the annexation. The Board approved the canvass of the proposition election to ratify the annexation on May 13, 2008. The annexed area of Caldwell County encompassed approximately 77,440 acres. A dispute with the Plum Creek Conservation District over portions of this annexed territory was settled through the passage of Senate Bill No. 1225 (2011) leaving approximately 72,767 acres within the GCUWCD. Delhi and Taylorsville are the principal communities in the area. The District's economy is primarily agricultural, with poultry production being the primary income producer, followed by beef cattle and farming. Oil and gas production also contributed to the local economy.

**Figure 1**



The GCUWCD is located within Groundwater Management Area 13 ("GMA 13"). GMA 13 includes seventeen (17) counties and nine (9) GCDs (**Figure 2.1 and Figure 2.2**). Section 36.108, Water Code, requires joint planning among the GCDs within GMA 13. The District is actively engaged in the joint planning process and provides input to GMA 13. The District has a joint management agreement with Evergreen Underground Water Conservation District, Guadalupe County Underground Water Conservation District, Medina County Groundwater Conservation District, and Wintergarden Groundwater Conservation District. This agreement, signed on August 8, 2000, states that the GCDs will cooperate in managing the groundwater resources of the Carrizo aquifer. The District has provided and will continue to provide the other GCDs in the aquifer management area with copies of its management plan and rules when changes are made.

Interlocal agreements with neighboring GCD's are renewed on a five (5) year cycle to ensure a mutually advantageous benefit of constituents to coordinate statutory duties related to scientific data collection and the associated management of groundwater resources and underlie neighboring districts, particularly within the context of the "joint planning" process and establishment and achievement of DFC's set within GMA 13.

**Figure 2.1**

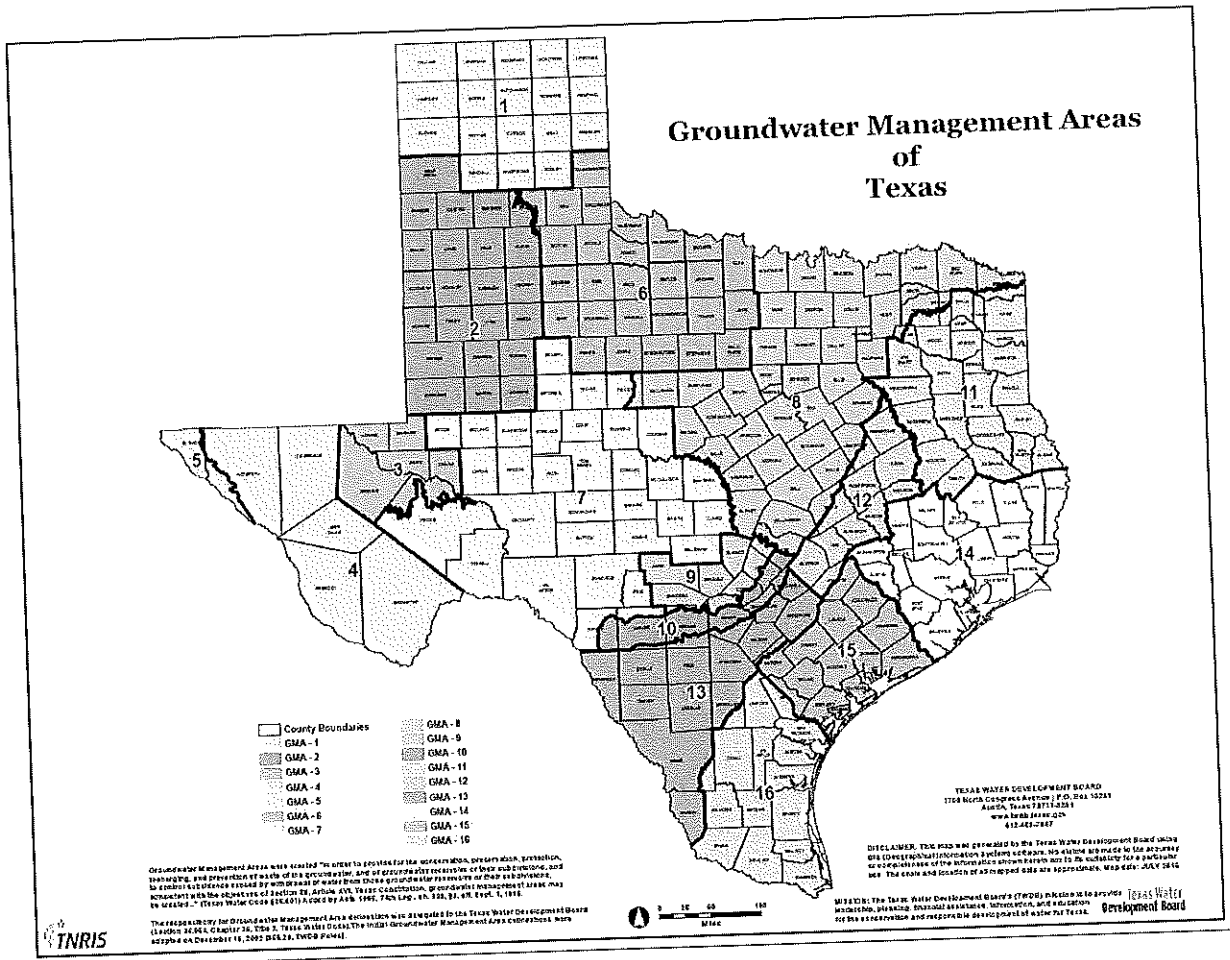
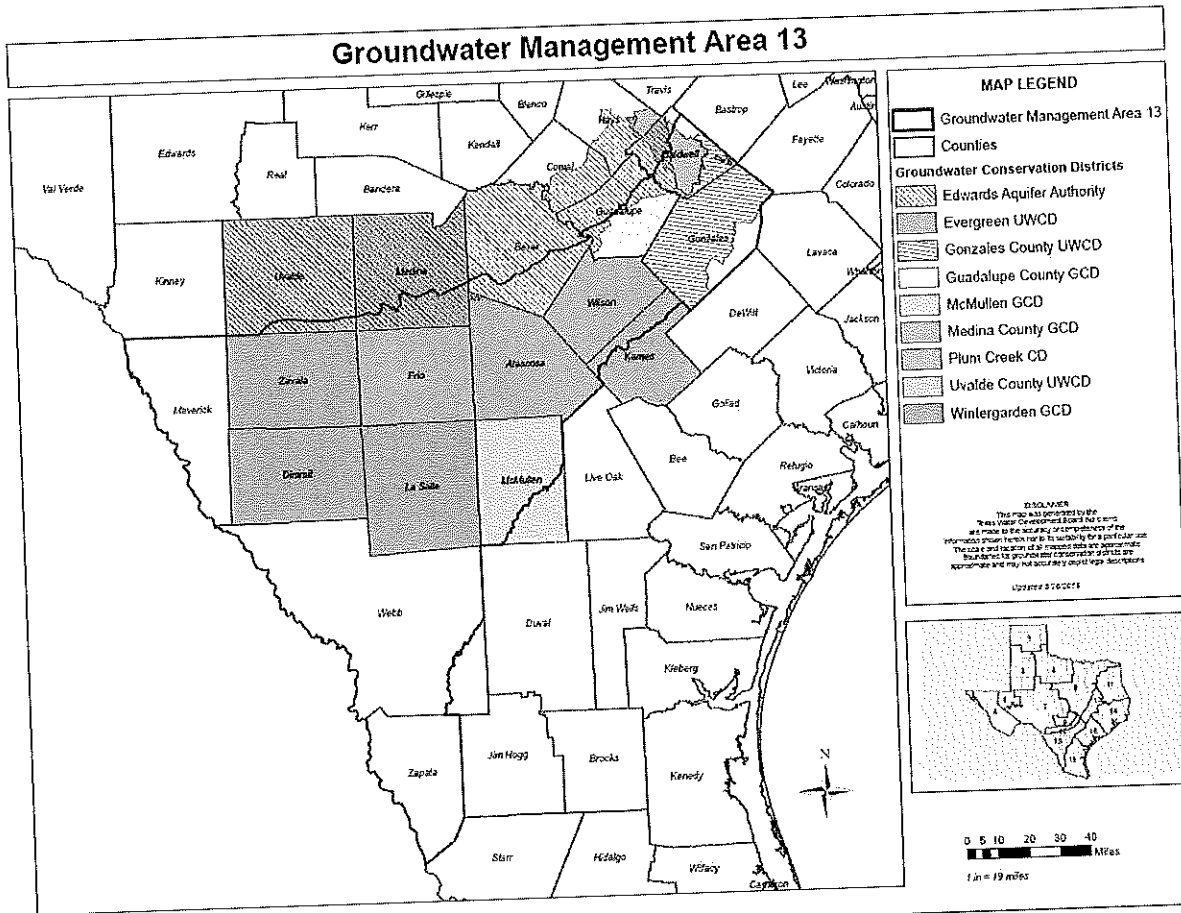


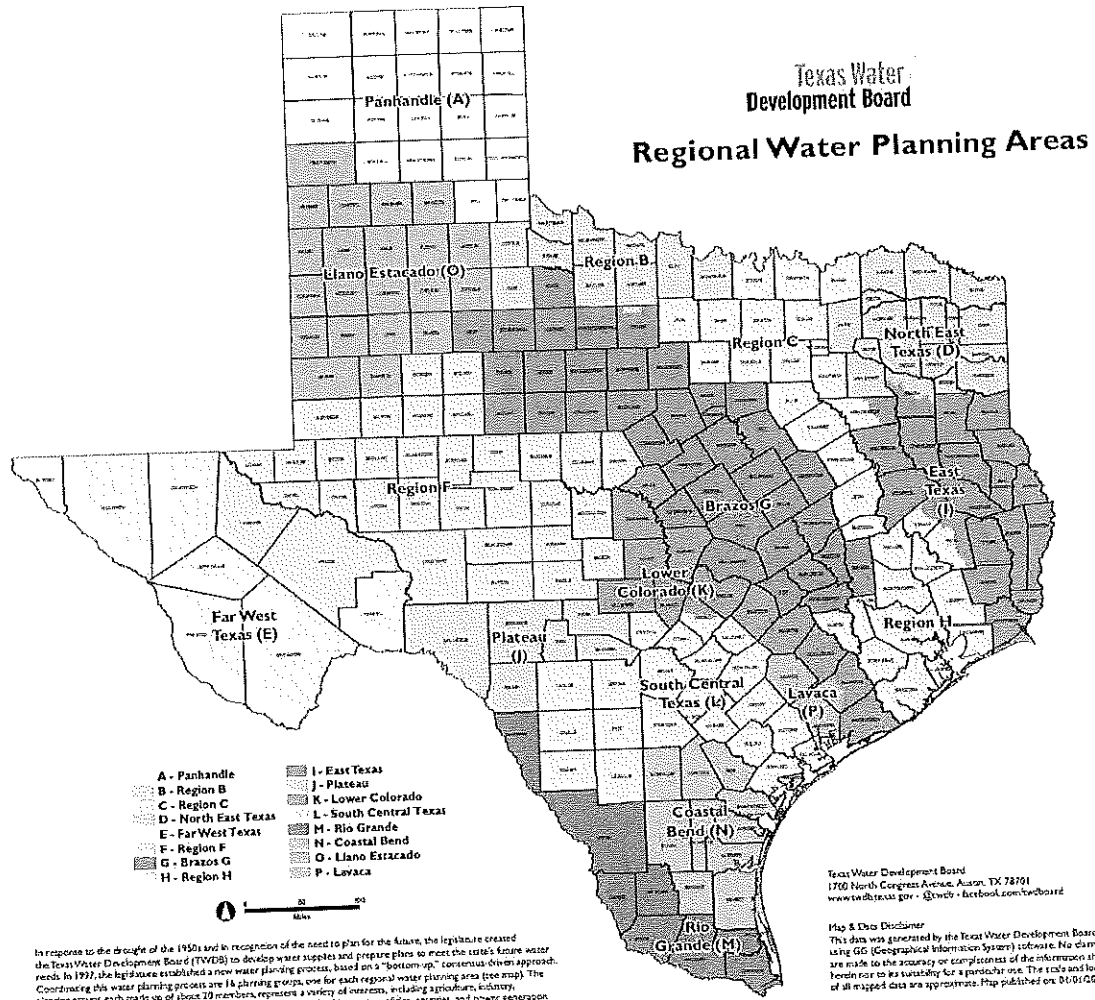
Figure 2.2



The GCUWCD is located within planning Region L (South Central Texas Regional Planning Group). Region L includes all or parts of 21 counties, portions of nine river and coastal basins, the Guadalupe Estuary, and San Antonio Bay (**Figure 3.1 and 3.2**). The Board of Directors unanimously supports the concept of a grassroots planning effort. The District will actively provide input to the regional plan and participate in the planning effort.



Figure 3.1

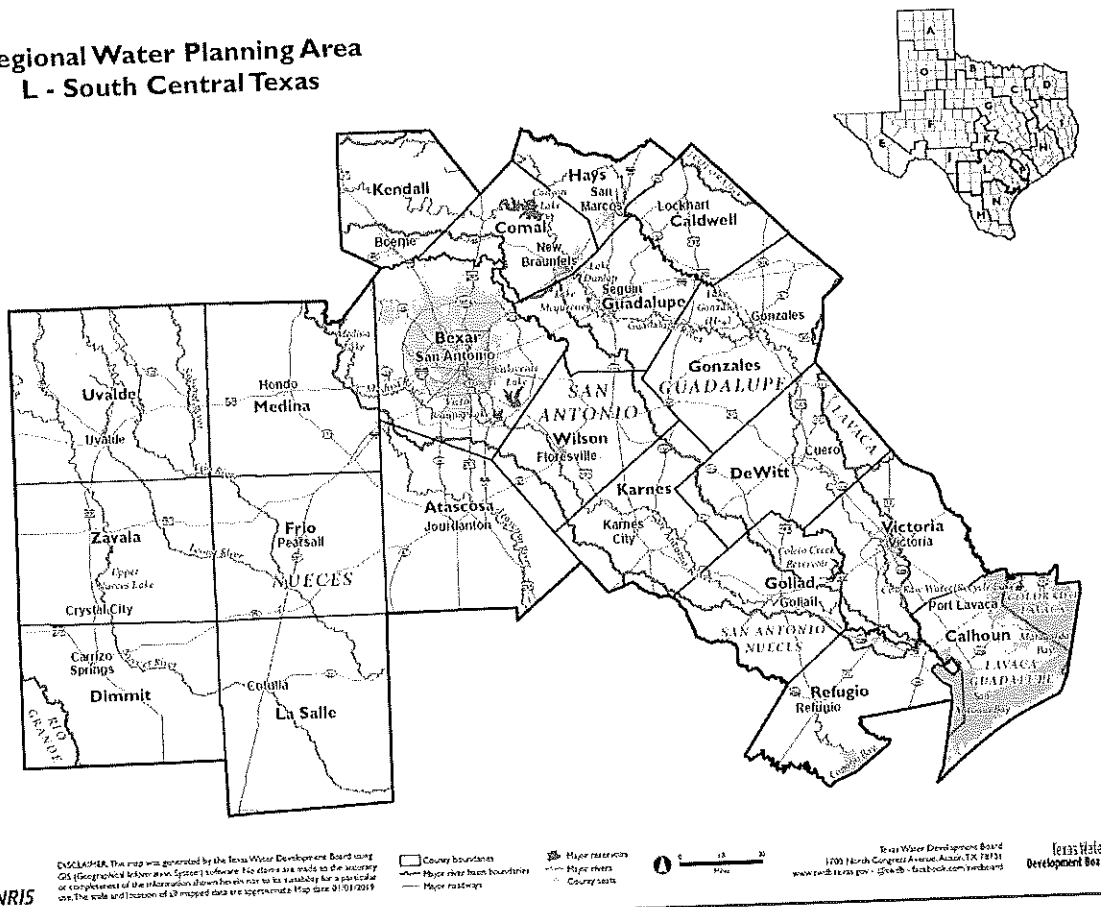


In response to the drought of the 1950s and in recognition of the need to plan for the future, the legislature created the Texas Water Development Board (TWDB) to develop water supplies and prepare plans to meet the state's future water needs. In 1977, the legislature established a new water planning process, based on a "bottom-up" watershed-driven approach. Coordinating this water planning process are 16 planning groups, one for each regional water planning area (see map). The planning groups each made up of about 10 members, represent a variety of interests, including agriculture, industry, environment, public, municipalities, business, water districts, river authorities, water utilities, counties, and power generation.



Figure 3.2

## Regional Water Planning Area L - South Central Texas



### 3.5 Topography and Drainage

The GCUWCD lies within south-central Texas on the Gulf Coastal Plain. In most of the District the topography ranges from flat to rolling. However, two prominent lines of hills extend across parts of Gonzales County – one along the northwestern boundary from Ottine to about seven (7) miles northwest of Dewville and the other along the boundary with Lavaca County. In Caldwell County, the minimum elevation, about 295 feet, is at the southern tip of the County where Plum Creek joins the San Marcos River. The maximum elevation is in the area of the so-called “Iron Mountains” peaks southeast and south of McMahan.

Most of the District lies in the drainage basin of the Guadalupe River. Two small areas in the eastern and southeastern parts of the District are drained by the Colorado River. Most of the southern and southwestern parts of Gonzales County are drained by Sandies Creek, which flows southeastward and enters the Guadalupe River near Cuero in Dewitt County. Most of the northern and northeastern parts of Gonzales County are drained by Peach Creek, which flows southward, entering the Guadalupe River about ten (10) miles southeast of Gonzales. Plum Creek, the major tributary to the San Marcos River in Caldwell County, drains about 310 square miles (about 60 percent) of the County.

### 3.6 Groundwater Resources

The Wilcox Group yields small to moderate quantities of fresh to slightly saline water to a few wells in and near the outcrop in the northwestern part of Gonzales County. In Caldwell County, the Wilcox yields small to large quantities of water to many wells for domestic and stock purposes, public supply, and some irrigation. The Wilcox Group crops out in a small area in the GCUWCD near Ottine. The Wilcox is

composed of clay, silt, fine to medium-grained sand and sandstone, sandy shale, and thin beds of lignite. The thickness of the Wilcox ranges from about 1,300 to 3,200 feet, with a maximum thickness of 2,000 feet occurring in an erosional channel in the southeastern part of the District. This erosional channel is filled largely with silty shale.

The principal water-bearing formation in the GCUWCD is the Carrizo Aquifer, which yields moderate to large quantities of fresh to slightly saline water throughout a large part of its subsurface extent. Most of the Carrizo in the GCUWCD has at least 80 percent sand. Portions of the Carrizo in the eastern half of the GCUWCD have 60 to 80 percent sand, generally corresponding to the area of the Yoakum Channel. Geologic thickness maps produced for the GCUWCD indicate that the Carrizo varies from less than 200 feet over the San Marcos Arch in the central portion of the county to more than 600 feet in the western portion of the GCUWCD and about 800 feet in the Yoakum Channel in the eastern portion of the GCUWCD. The Carrizo crops out in a small area along the western edge of Gonzales County and across the southeast portion of Caldwell County in a belt 1.5 to 3.5 miles wide. The Carrizo consists of beds of massive, commonly cross-bedded coarse sand and some minor amounts of sandstone and clay.

The Queen City aquifer yields small to moderate quantities of fresh to slightly saline water to wells in the area of the outcrop and downdip for a distance of about 5 to 8 miles. The Queen City aquifer crops out in a northeastward trending belt across Gonzales and Caldwell Counties about 2 to 4 miles wide and is composed of massive to thin bedded medium to fine sand and clay. The thickness of the Queen City ranges from about 400 to 825 feet where the entire section is present.

The Sparta aquifer yields small to moderate quantities of fresh to slightly saline water in the outcrop and for a few miles downdip. The Sparta aquifer crops out in a belt about 1-mile wide trending northeastward across Gonzales County and consists of fine to medium grained sand with some shale. The thickness of the Sparta aquifer averages about 100 feet.

The Yegua-Jackson aquifer runs approximately parallel to the Gulf of Mexico coastline and is aligned across the south-central portion of the GCUWCD in a narrow band approximately 7 to 10 miles wide. In Gonzales County, the Yegua Formation yields small quantities of slightly to moderately saline water for domestic use and for livestock. At some places in the County, sands in the Jackson also yield small quantities of fresh to slightly saline water for domestic use and for livestock. The Yegua Formation is composed of medium to fine sand, clay, silt, small amounts of gypsum, and beds of lignite. The Yegua has a maximum thickness of about 1,000 feet. The Jackson Group conformably overlies the Yegua Formation and consists of clay, silt, tuffaceous sand, sandstone, bentonitic clay, and some volcanic ash, and has a maximum thickness of at least 950 feet and possibly as much as 1,200 feet.

#### **4.0 CRITERIA FOR PLAN APPROVAL**

##### **4.1 Planning Horizon**

This plan shall be used for the ten (10) year period following approval as administratively complete by the Texas Water Development Board (TWDB) as required by *31 TAC §356.52(a)*. The GCUWCD shall implement these goals and policies for a planning period of ten (10) years and will review the plan in five (5) years or sooner as circumstances warrant.

##### **4.2 Board Resolution**

A certified copy of the GCUWCD's resolution adopting this plan as required by *31 TAC §356.53(a)(2)* is included in **Appendix 1**.

##### **4.3 Plan Adoption**

Public notices documenting that this plan was adopted following appropriate public meetings and hearings, as required by 31 TAC §356.53(a)(3), are included in **Appendix 2**.

#### **4.4 Coordination with Surface Water Management Entities**

Letters transmitting copies of this plan to the Guadalupe Blanco River Authority and Region L are included in **Appendix 3** as required by 31 TAC §356.51.

#### **5.0 DESIRED FUTURE CONDITIONS AND MODELED AVAILABLE GROUNDWATER**

Section 36.108, Texas Water Code, requires joint planning among the groundwater conservation districts within GMA 13. A key part of joint planning is determining “desired future conditions” (DFCs) that are used to calculate “modeled available groundwater” (MAG). These conditions and volumes are used for regional water plans, groundwater management plans, and permitting. DFCs are the desired, quantified conditions of groundwater resources (such as water levels, water quality, spring flows, or volumes) at a specified time or times in the future or in perpetuity.

The desired future conditions for the Carrizo-Wilcox, Queen City, and Sparta aquifers described in Resolution 21-02 from Groundwater Management Area 13, adopted November 19, 2021, are:

• “The first desired future condition for the Carrizo-Wilcox, Queen City and Sparta aquifers in Groundwater Management Area 13 is that 75 percent of the saturated thickness in the outcrop at the end of 2012 remains in 2080. Due to the limitations of the current Groundwater Availability Model, this desired future condition cannot be simulated as documented during 2016 Joint Planning in GMA 13 Technical Memorandum 16-08 (Hutchison, 2017a).”

• “In addition, a secondary proposed desired future condition for the Carrizo-Wilcox, Queen City, and Sparta aquifers in Groundwater Management Area 13 is an average drawdown of 49 feet (+/- 5 feet) for all of GMA 13. The drawdown is calculated from the end of 2012 conditions to the year 2080. This desired future condition is consistent with simulation “GMA13 2019 001” summarized during a meeting of Groundwater Management Area 13 members on March 19, 2021.”

The desired future conditions for the Yegua-Jackson Aquifer described in Resolution 21-03 from Groundwater Management Area 13, adopted November 19, 2021 are:

• “For Gonzales County, the average drawdown from 2010 to 2080 is 3 feet (+/- 1 foot).”

The Edwards (Balcones Fault Zone), Gulf Coast, and Trinity aquifers were declared not relevant for purposes of joint planning by Groundwater Management Area 13 in Resolution 21-01

For each aquifer, the DFC average drawdowns encompass the full extent of the aquifers within the District, from the outcrop to the down dip limit of the aquifer within the District boundary. The GMA 13 wide DFCs for the Carrizo-Wilcox, Queen City, Sparta, and Yegua-Jackson aquifers equate to drawdowns in the District’s aquifers as shown in **Table 1** below.

**Table 1**  
**Desired Future Conditions**  
**Appendix 4: GMA 13 Technical Memorandums GMA13-2019-001**  
**Gonzales County Underground Water Conservation District**

Aquifer	Average Drawdown (feet)
Wilcox (Upper)	120
Wilcox (Middle)	129
Wilcox (Lower)	145
Carrizo-Wilcox	120
Queen City	31
Sparta	23
Yegua-Jackson	3

Modeled Available Groundwater (MAG) is defined in the Texas Water Code, Section 36.001, Subsection (25) as “the amount of water that the executive administrator determines may be produced on an average annual basis to achieve a desired future condition established under Section 36.108.” MAG estimates for the Wilcox, Carrizo, Queen City, Sparta and Yegua-Jackson Aquifers were received from the TWDB in October 2023. Presentation of this data in the management plan is required by 31 TAC §356.52 (a)(5)(A).

**Table 2**  
**Modeled Available Groundwater**  
**Gonzales County Underground Water Conservation District**  
**Appendix 5: GAM Run 21-018 MAG**

Aquifer	Year						
	2020 (ac-ft/yr)	2030 (ac-ft/yr)	2040 (ac-ft/yr)	2050 (ac-ft/yr)	2060 (ac-ft/yr)	2070 (ac-ft/yr)	2080 (ac- ft/yr)
Carrizo- Wilcox	60,899	85,737	107,189	127,883	132,834	133,794	126,248
Queen City	9,815	9,789	9,530	5,3519,505	5,3519,505	5,3518,477	5,3518,477
Sparta	3,5243,554	3,5542,451	3,5542,457	3,5542,451	3,5542,451	3,5542,451	3,5542,451
Yegua Jackson	4,1404,728	4,1404,728	4,1404,728	4,1404,728	4,1404,728	4,1404,728	4,1404,728

The GAM run used to determine the MAG included all groundwater from the outcrop to the downdip extent within the GCUWCD for all of the aquifers. The quality of the water was not taken into account considered so the MAG volumes include water with total dissolved solids concentrations (TDS) up to and possibly exceeding 3,000 ppm.

According to information included in the Final Reports of Groundwater Availability Models for the Carrizo-Wilcox, Queen City and Sparta Aquifers, prepared for the TWDB, limitations are intrinsic to models. Model limitations can be grouped into several categories including: (1) limitations in the data supporting a model, (2) limitations in the implementation of a model which may include assumptions inherent to the model application, and (3) limitations regarding model applicability. The report also states that the GAMs were developed on a regional scale and are applicable for assessing regional aquifer conditions resulting from groundwater development over a fifty-year time period. At this scale, the models are not capable of precisely predicting aquifer responses at specific points such as a particular well. Thus,

the estimation of available groundwater calculated by the Southern Carrizo-Wilcox Queen City and Sparta (SCWQCS) GAM should be considered as a tool to assist the District in managing the aquifers to comply with the District's adopted DFCs.

Drawdown averages and modeled available groundwater values were based on the TWDB defined aquifer boundaries rather than the model extent. Drawdowns for cells that became dry during the simulation (water level dropped below the base of the cell) were calculated as the reference year water level elevation minus the elevation of the model cell bottom. Pumping in dry cells was excluded from the modeled available groundwater calculations for the decades after the cell went dry. A tolerance of five feet was assumed when comparing desired future conditions to modeled drawdown results. This tolerance was specified by the GMA in their definition of the desired future conditions. Estimates of modeled available groundwater from the model simulation were rounded to the nearest whole number. The verification calculation for the desired future conditions is based on an average of all model layers (Layers 1 through 8). The modeled available groundwater calculations are based on Layer 1 for the Sparta Aquifer, Layer 3 for the Queen City Aquifer, and the sum of Layers 5 through 8 for the Carrizo-Wilcox Aquifer.

## 6.0 Estimated Historical Groundwater Use and ~~2022~~2017 State Water Plan Datasets

The TWDB provides a package of data reports (Parts 1 and 2) to groundwater conservation districts to assist them in meeting the requirements for approval of their five-year groundwater Management Plan. Each report in the package addresses a specific numbered requirement in the TWDB's groundwater Management Plan checklist. The five reports in Part 1 are:

1. **Estimated Historical Groundwater Use** - the TWDB Uses Unit operates an annual survey of ground and surface water use by municipal and industrial entities within the state of Texas. This survey collects the volume of both ground and surface water used, the source of the water, water sales and other pertinent data from the users. The data provides an important source of information in helping guide water supply studies and regional and state water planning. Presentation of this data in the management plan is required by §36.1071(e)(3)(B), *Texas Water Code*.
2. **Projected Surface Water Supplies** - estimates of projected water supplies represent the estimated capacity of water systems to deliver water to meet user needs on an annual basis. Estimates of projected water supplies are compared with estimates of projected water demand to determine if the existing infrastructure is capable of meeting the expected needs of the water user group. Presentation of this data in the management plan is required by §36.1071(e)(3)(F), *Texas Water Code*.
3. **Projected Water Demands** - the projected water demand estimates are derived from the TWDB ~~2022~~2012 State Water Plan. These water demand projections are separated into the following designated uses: municipal, manufacturing, steam electric, irrigation, mining, and livestock. Water demand is the total volume of water required to meet the needs of the specified user groups located within the District's planning area. Presentation of this data in the management plan is required by §36.1071(e)(3)(G), *Texas Water Code*.
4. **Projected Water Supply Needs** - the projected water supply needs estimates are derived from the ~~2022~~2012 State Water Plan. Estimates of Projected Water Supplies are compared with estimates of Projected Water Demand to determine if the existing infrastructure is capable of meeting the expected Water Supply Needs of the water user group. Presentation of Water Supply Needs in the management plan is required by §36.1071(e)(4), *Texas Water Code*.

5. **Projected Water Management Strategies** - water management strategies are specific plans to increase water supply or maximize existing supply to meet a specific need. Municipal water conservation strategies focus on reducing residential, commercial, and institutional water use through a variety of social or technological approaches. Local Carrizo-Wilcox temporary overdraft strategies involve temporarily over-drafting the aquifer during drought conditions to supplement water supplies. Presentation of water management strategies in the management plan is required by §36.1071(e)(4), *Texas Water Code*.

The Part 1 data package reports are included in **Appendix 6**.

## 7.0 Groundwater Availability Model Report

Part 2 of the TWDB data package is the Groundwater Availability Model report. Texas Water Code, Section 36.1071, Subsection (h) states that, in developing a groundwater management plan, GCDs shall use groundwater availability modeling provided by the TWDB. Information derived from the groundwater availability models that shall be included in the management plan includes:

1. the annual amount of recharge from precipitation, if any, to the groundwater resources within the District – required by §36.1071(e)(3)(E), *Texas Water Code*.
2. for each aquifer within the District, the annual volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers – required by §36.1071(e)(3)(E), *Texas Water Code*.
3. the annual volume of flow into and out of the District within each aquifer and between aquifers in the District – required by §36.1071(e)(3)(E), *Texas Water Code*.

The TWDB ran a groundwater availability model (GAM Run 48-00623-018) for the central and southern Carrizo-Wilcox, Queen City, and Sparta aquifers, the Yegua-Jackson Aquifer, and the central portion of the Gulf Coast Aquifer to create a groundwater budget. A groundwater budget summarizes water entering and leaving the aquifer according to input parameters assigned in the models to simulate the groundwater flow system. The components of the water budgets include:

1. **Precipitation Recharge** – this is the aerially distributed recharge sourced from precipitation falling on the outcrop areas of the aquifers (where the aquifer is exposed at the land surface) within the District.
2. **Surface Water Outflow** – this is the total water exiting the aquifer (outflow) to surface water features such as streams, reservoirs, and drains (springs).
3. **Flow Into and Out of District** – this component describes lateral flow within the aquifer between the District and adjacent counties.
4. **Flow Between Aquifers** – this describes the vertical flow, or leakage, between aquifers or confining units. Inflow to an aquifer from an overlying aquifer will always equal the outflow from the other aquifer.

The Part 2 data package is included in **Appendix 7**.

## 8.0 MANAGEMENT OF GROUNDWATER RESOURCES

The GCUWCD will manage groundwater resources consistent with the intent and purpose of the District to conserve, preserve, protect and prevent waste of groundwater resources so that the economy of the areas



within the District will be ensured of growth for future generations. Details of how the District will manage groundwater supplies, as required by *31 TAC 356.52(a)(4)*, as well as the actions, procedures, performance and avoidance necessary to effectuate the management plan, including specifications and the proposed rules, as required by *§36.1071(e)(2), Texas Water Code* are presented below.

### **8.1 Regulatory Action Plan**

Pursuant to Chapter 36 of the Texas Water Code, the District has adopted rules limiting groundwater production based on tract size and the spacing of wells, to provide for conserving, preserving, protecting, preventing degradation of water quality and to prevent the waste of groundwater. This District will enforce the rules of the District to meet the goals of regulating the production of groundwater within the District. These rules will govern the permitting of wells to be drilled and the production of water from permitted wells. The rules shall be adhered to and shall be based on the best technical evidence available. Copies of the District's Rules and the Management Plan shall be available at the District's office at no charge to residents of the District.

The District will monitor water levels in selected observation wells and evaluate whether the annual change in water levels is in conformance with the DFCs adopted by GMA 13 for each aquifer. The District will use information readily available (Groundwater Availability Models, TWDB reports, etc.) or install observation wells to assess the saturated thickness of the outcrops for the Carrizo-Wilcox, Queen City, and Sparta aquifers. The District will use the saturated thickness of the approximate center of the outcrop as the monitoring location for the DFC. Water levels will be collected from nearby observation wells to monitor the saturated thickness levels of the aquifers.

For the Yegua-Jackson aquifer the starting water level date for the District's DFC is January 2010. The District will measure water levels in designated observation wells during the winter months (November through February). Water level measurements will be obtained by automatic or manual water level monitoring equipment. The District will calculate the average yearly change in water level based on all of the wells in the observation well network. These changes will be summed each year over the DFC planning period. The average water level declines over time will be compared to production amounts to assist in predicting future water level declines.

The District will estimate total annual groundwater production for each aquifer based on water use reports, estimated exempt use, and other relevant information and compare these production estimates to the MAGs. The District will base future permitting decisions on the amount of existing water permitted, amount existing water being produced, and the condition of the aquifer (water level drawdowns) at the time the permit application is filed in order to achieve the DFC.

### **8.2 Permits and Enforcement**

The District may deny permits or limit groundwater withdrawals following the guidelines stated in the rules of the District and this plan. In determining whether to issue a permit or limit groundwater withdrawal, the District will consider the public benefit against individual hardship after considering all relevant evidence, appropriate testimony and all relevant factors.

In carrying out its purpose, the District may require the reduction of groundwater withdrawal to amounts that will not cause the water table or artesian pressure to drop to a level that would cause harm to the aquifer or exceed the specified drawdown limitations under the adopted Desired Future Conditions. To achieve this purpose the District may, at its discretion and based on information obtained through its groundwater monitoring procedures, amend or revoke any permits after notice and hearing. The monitoring procedures include calculation of yearly average drawdowns which will ensure that the District and permit holders are

fully aware of the condition of the aquifers and corrective action measures can be reasonably implemented over appropriate intervals without causing harm to human health.

The District will enforce the terms and conditions of permits and its rules by enjoining the permittee in a court of competent jurisdiction as provided for in Section 36.102 of the Texas Water Code.

### **8.3 Exempt Use Wells**

This plan and its accompanying rules shall exempt certain uses from the permit requirement as provided for in Section 36.117 of the Texas Water Code. The District, by rule, also provides exemptions for other categories of groundwater use including agricultural use, fracking use, and monitoring wells.

### **8.4 Permit Fees**

The District will assess reasonable fees for processing a permit application to drill a test hole, for processing drilling and production permit applications, for processing export permit applications, and for processing permit applications to rework, re-equip, or alter a water well. No application fees are required for registering and recording the location of an existing well with the District.

### **8.5 Equity and Discretion**

The District shall treat all citizens and entities of the District equally. Upon applying for a permit to drill a water well or a permit to increase the capacity of an existing well, the Board of Directors shall take into consideration all circumstances concerning the applicant's situation. The Board may grant an exception to the rules of the District when granting permits to prevent hardship or economic loss, also taking into consideration hydrological, physical or geophysical characteristics. Therefore, temporary exceptions to the general rule for a specific area may be necessary if an economic hardship will be created that is significantly greater for one person than for others in the District. In considering a request for an exception, the Board will also consider any potential adverse impacts on adjacent landowners. The exercising of discretion by the Board may not be construed to limit the power of the Board.

### **8.6 Spacing Requirements**

Spacing of wells from the property line shall be in accordance with the rules of the District.

### **8.7 Production Ratios**

The District may adopt rules to regulate groundwater withdrawals by means of production limits. The District may deny a well permit or limit groundwater withdrawals in accordance with guidelines stated in the rules of the District. In making a determination ~~deciding~~ to deny a permit or reduce the amount of groundwater withdrawals authorized in an existing permit, the District may weigh the public benefit in managing the aquifer to be derived from denial of a groundwater withdrawal permit or the reduction of the amount of authorized groundwater withdrawals against the individual hardship imposed by the permit denial or authorization reduction.

### **8.8 Cooperation and Coordination**

Public cooperation is essential for this plan to accomplish its objectives. The District will work with the public and local and state governments to achieve the goals set forth in this plan. The District will coordinate activities with all public water suppliers, private water suppliers, industrial users and agricultural users to help them conserve groundwater. The Guadalupe Blanco River Authority is the local entity regulating all surface water in the District and the District will work closely with this agency to achieve our mutual water related goals. The TCEQ is the agency charged with protecting the state's water resources, and the TWDB is the agency responsible for water resources planning and promotion of water conservation practices. The District will continue to work with both of these agencies to conserve, preserve and protect water resources and to prevent waste as outlined in this plan.

### 8.9 Subsidence

Subsidence is not a relevant factor with the aquifers managed by this District according to regional groundwater management planning; the District includes a portion of the Gulf Coast Aquifer, which is known for its susceptibility to subsidence, but the District's creation order does not give the District any jurisdiction over the Gulf Coast Aquifer. In the report "Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping-TWDB Contract Number 164830262"

-the Subsidence Risk Value (SRV) in the Carrizo-Wilcox Aquifer as an aggregate scored a medium-high vulnerability score of 4.7 the total subsidence risk to be represented by a value between 0 and 10 (inclusive) with the higher values being at the greatest risk. Subsidence investigations at the local level may be appropriate for areas identified as medium, or high risk with critical infrastructure that would be sensitive to land surface elevation changes and/or land surface fissures. The objective of further investigating subsurface characteristics that lead to subsidence is to provide data that can inform a more accurate evaluation of subsidence risk or that can contribute to more accurate subsidence predictions. This is a regional study and should not be used for local subsidence risk analysis. The results of this study may provide a qualitative indication of local risk, but greater data uncertainty at the local level increases the uncertainty of the results. While the results may inform stakeholders of the risk for potential subsidence, site specific investigations of aquifer properties affecting subsidence would be needed for local scale analysis.

No subsidence has been observed in the District. The District will conduct a subsidence study at the local level during this planning cycle to investigate the local vulnerability to provide a more accurate evaluation of subsidence risk. Subsidence investigation methods will include: lithologic; geotechnical, and/or geophysical borings; geophysical surveys; and survey benchmark re-leveling.

### 8.10 Transportation of Water from the District

In accordance with Section 36.122 of the Texas Water Code, if the proposed use of a water well or wells is for transportation of water outside the District additional information shall be required and an export permit must be obtained from the Board before operating a transportation facility. The District may, in considering renewal of an export permit, review the amount of water that may be transferred out of the District. At any time during the term of an export permit, the District may revise or revoke a permit if the use of water unreasonably affects existing groundwater and surface water resources or existing Permit Holders.

### 8.11 Groundwater Protection

Section 26.401 of the Texas Water Code states that: "In order to safeguard present and future groundwater supplies, usable and potential usable groundwater must be protected and maintained."

Groundwater contamination may result from many sources, including current and past oil and gas production, agricultural activities, industrial and manufacturing processes, commercial and business endeavors, domestic activities and natural sources that may be influenced by or may result from human activities. The District will take appropriate measures to monitor activities that are either causing, or have the potential threat to cause groundwater contamination. Due to permeability of aquifer outcrops and

recharge zones, there is a greater threat of groundwater contamination from surface pollution in recharge and outcrop regions, and the District will monitor those areas more closely.

### **8.12 Drought Management**

Periodic drought is a condition that plagues the GCUWCD. The Board of Directors of the District is very concerned that water will be available for the needs of the citizens during times of drought. The General Manager of the District will update the Board at every monthly meeting on drought conditions in the District. The General Manager will report the Palmer Drought Severity Index to the Board during the manager's report for the month. The Board of Directors will instruct the General Manager of the appropriate actions to be taken upon notification of moderate to severe drought. The possible actions to be taken may include public service announcements on the radio, newspaper articles on conditions of the aquifer, water conservation information, and/or notices to municipal suppliers to implement their drought plan.

### **8.13 Technical Research and Studies**

The District, in cooperation with the TWDB and the TCEQ, will conduct studies to monitor the water level in the Yegua Jackson, Sparta, Queen City, Carrizo, and Wilcox aquifers to determine if there is any danger of damaging these aquifers due to over production. The District will also establish water quality monitoring wells through out the District to determine if any degradation of water quality is occurring. The District is currently cooperating with the Texas Water Development Board with its monitoring of the Wilcox, Carrizo, Queen City, Sparta and Yegua Jackson aquifers.

### **8.14 Groundwater Recharge**

The GCUWCD is prohibited from financing any groundwater recharge enhancement projects by order of the Texas Natural Resource Conservation Commission number 101692-DO4. The District has adopted rules to regulate Managed Aquifer Recharge projects.

### **8.15 Public Information**

A well-informed public is vital to the proper operation of a groundwater conservation district. The District will keep the citizens of the District informed by means of a website, timely newspaper articles and/or public service radio announcements. As part of the public information program the directors of the District and the District manager will make presentations to public gatherings, as requested, in order to keep the citizens informed about District activities and to promote proper use of available groundwater. The District has an ongoing program to assist teachers at public schools with the education of children on issues of groundwater conservation and the hydrology of our area. The District conducts community outreach in the form of providing rain gauges and informational presentations at community group events.

### **8.16 Conservation and Natural Resource Issues**

Water is the most precious natural resource on Earth. The District will promote conservation as a way of life in order to conserve fresh water for future generations. The District will require wells in areas that are in danger of over producing groundwater and damaging the aquifers to restrict production by means of production permits and metering of the amount of water produced. The District will work with water utilities, agricultural and industrial users to promote the efficient use of water so that we may conserve water. The District will keep abreast of developments in water conservation and update requirements as needed. The District will, upon request, provide information on wells and water levels to the Natural Resources Conservation Service to develop waste management plans for the poultry producers.

Abandoned oil wells pose the greatest threat to the aquifers of the District. District personnel will monitor oilfield activity and notify the public that they may report abandoned oil wells and other problems associated with oil production to the District.

## 9.0 METHODOLOGY FOR TRACKING DISTRICT PROGRESS IN ACHIEVING MANAGEMENT GOALS

The District manager will prepare and present an Annual Report to the Board of Directors on District performance in regards to achieving management goals and objectives. The Annual Report will be presented to the Board on or before March 31<sup>st</sup> of each new year. The Board will maintain the report on file for public inspection at the District's offices upon adoption.

## 10.0 GOALS, MANAGEMENT OBJECTIVES, PERFORMANCE STANDARDS AND METHODOLOGY FOR TRACKING PROGRESS

The District's management goals, objectives, performance standards, and methodology for tracking progress, as specified in 36.1071(e)(2), *Texas Water Code* are addressed below.

### 10.1 Plan Elements Required by State Law and Rule

<p style="text-align: center;"><b>Providing the Most Efficient Use of Groundwater</b> <i>31 TAC 356.52(a)(1)(A)</i></p>
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The District's goal is to provide for the most efficient use of the groundwater resources of the GCUWCD.

**Management Objective 1:** The District will register at least 20 exempt use wells and will compile the data into a database.

**Performance:** Record the date and number of exempt use wells registered in a database and include the information in the District's Annual Report.

**Management Objective 2:** The District will measure water levels in at least 40 observation wells to provide coverage across the Wilcox, Carrizo, Queen City, Sparta, and Yegua-Jackson Aquifers three times a year and will compile the water level data into a database.

**Performance:** Record the number of wells and water level measurements measured for each aquifer annually in a database and include this information in the District's Annual Report.

**Management Objective 3:** The District will meet with the cities of Gonzales, Nixon, Smiley, and Waelder, and the Gonzales Area Development Corporation at least once a year to inform them on water availability for economic development.

**Performance:** Record the date and number of meetings annually and include a copy of the meeting attendee's sheet and information on the topics of discussion with each entity in the District's Annual Report.

**Management Objective 4:** The District will gather water production data from local public water suppliers including the Gonzales County Water Supply Corporation, City of Gonzales, City of Nixon, City of Smiley, and City of Waelder, ten permitted or registered irrigation wells, and two livestock production facilities annually and compile the data into a database.

**Performance:** Record the amount of water used by each public water supplier, irrigation well, and livestock production facility and include the information into the District's Annual Report.

**Controlling and Preventing Waste of Groundwater**  
*31 TAC 356.52(a)(1)(B)*

**Management Objective 1:** The District will provide educational resources to citizens within the District on controlling and preventing waste of groundwater. The District will, at least annually, submit an information article on controlling and preventing waste of groundwater within the District for publication in a newspaper of general circulation in the District or may publish the article on the District's website. The District may also make a presentation to the public through local service organizations or public schools describing measures that can be taken by water users within the District.

**Performance:** Record the dates of each control and prevention of waste article submitted for publication, published on the District's website, or presentation made to the public and include this information in the District's Annual Report.

**Controlling and Preventing Subsidence**  
*31 TAC 356.52(a)(1)(C)*

Because of the rigid geologic framework of the aquifers regulated by the District subsidence is not a relevant issue within the GCUWCD. The District includes a portion of the Gulf Coast Aquifer, which is known for its susceptibility to subsidence, but the District's creation order does not give the District any jurisdiction over the Gulf Coast Aquifer. Therefore, the management goal is not relevant or applicable.

**Conjunctive Surface Water Management**  
*31 TAC 356.52(a)(1)(D)*

The District's goal is to maximize the efficient use of groundwater and surface water for the benefit of the residents of the District.

**Management Objective 1:** The District will meet with the staff of the Guadalupe Blanco River Authority ("GBRA"), at least once a year, to share information updates about conjunctive use potential.

**Performance:** Record the number of GBRA meetings attended annually and include a copy of the meeting attendee's sheet and information on the topics of discussion in the District's Annual Report.

**Management Objective 2:** The District will attend at least one Regional Water Planning Group ("RWPG") meeting annually to share information updates about conjunctive use potential.

**Performance:** Record the number of RWPG meetings attended annually and include a copy of each RWPG meeting agenda and a copy of the meeting minutes in the District's Annual Report.

**Addressing Natural Resource Issues**  
*31 TAC 356.52(a)(1)(E)*

The District's goal is to protect the Natural Resources of the GCUWCD. The District believes that preventing the contamination of groundwater is the single most important waste prevention activity it can undertake.



**Management Objective 1:** The District will collect water quality data in at least 20 wells annually at locations throughout the District and will compile the data into a database. In selecting wells the District will emphasize the wells at or near the zone of bad water or potential pollution sources based on best available data. The District may conduct field measurements using hand held meters and/or collect samples for laboratory analysis from each well.

**Performance:** Record the number of wells in which water quality measurements were collected and the water quality results for each well and include this information in the District's Annual Report.

**Management Objective 2:** The District will monitor new facilities and activities on the recharge zones of the Carrizo/Wilcox, Queen City, Sparta, and Yegua-Jackson aquifers on at least an annual basis for point source and non-point source pollution and compile this data into a database.

**Performance:** Record the date and results of the visual survey of all recharge zones for point source and nonpoint source activities and facilities and include the information in the District's Annual Report.

**Management Objective 3:** The District will meet with the local Texas Railroad Commission ("TRC") engineering technician at least once annually to review oil well permits and oil related activity that could endanger the aquifers and coordinate its efforts with this agency in locating abandoned or deteriorated oil wells.

**Performance:** Record the date and number of meetings with the TRC, the number of oil related activities that endangered the aquifers, the number of abandoned or deteriorated wells filed with the District and include the information in the District's Annual Report.

**Management Objective 4:** The District will meet with Natural Resources Conservation Service representatives to exchange information on irrigation demands, NRCS programs, and wells and water levels at least once annually.

**Performance:** Record the date and number of meetings with the Natural Resources Conservation Service representatives and include the information in the District's Annual Report.

#### Addressing Drought Conditions

*31 TAC 356.52(a)(1)(F)*

The District's goal is to provide information and coordinate an appropriate response with local water users and water managers regarding the existence of extreme drought events in the District.

**Management Objective 1:** The General Manager will access the National Weather Service – Climate Prediction Center website ([http://www.cpc.ncep.noaa.gov/products/monitoring\\_and\\_data/drought.shtml](http://www.cpc.ncep.noaa.gov/products/monitoring_and_data/drought.shtml)) to determine the Palmer Drought Severity Index and will submit a report to the Board of Directors monthly. The District will provide information to and coordinate with local water users and water managers regarding drought response activities.

**Performance:** Record the number of monthly reports made to the District Board of Directors and the date and number of times when the District was under extreme drought conditions and the number of times letters were sent to public water suppliers. Include this information in the District's Annual Report.

**Addressing Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation  
Enhancement, Brush Control**  
*31 TAC 356.52(a)(1)(G)*

The District believes that the most efficient and effective ways to facilitate conservation within the District are through sound data collection, dissemination, and the distribution of public information about the groundwater resources in the GCUWCD, its current use and more effective ways to use it.

**Management Objective 1:** The District will, at least annually, submit an information article describing conservation measures that can be taken by water users within the District for publication in a newspaper of general circulation in the District or may publish the article on the District's website.

**Performance:** Record the dates of each conservation article submitted for publication or published on the District's website and include this information in the District's Annual Report.

**Management Objective 2:** The District will, at least annually, submit an information article describing recharge enhancement measures for publication in a newspaper of general circulation in the District or may publish the article on the District's website.

**Performance:** Record the dates of each recharge enhancement article submitted for publication or published on the District's website and include this information in the District's Annual Report.

**Management Objective 3:** The District will, at least annually, submit an information article describing rainwater harvesting measures that can be taken by water users within the District for publication in a newspaper of general circulation in the District or may publish the article on the District's website.

**Performance:** Record the dates of each rainwater harvesting article submitted for publication or published on the District's website and include this information in the District's Annual Report.

**Management Objective 4:** The District will publish an information article in a publication of wide circulation in the District or on its website, at least annually, describing brush control measures that can be used by landowners within the District

**Performance:** Record the date and number of brush control articles published and include this information in the Annual Report.

**Addressing the Desired Future Conditions of the Groundwater Resources**  
*31 TAC 356.52(a)(1)(H)*

**Management Objective 1:** A District representative will attend all Groundwater Management Area 13 meetings annually.

**Performance:** Record the number of GMA13 meetings attended annually and include a copy of each GMA13 meeting agenda and a copy of the meeting minutes in the District's Annual Report.

**Management Objective 2:** The District will monitor water levels and evaluate whether the change in water levels is in conformance with the DFCs adopted by the District. The District will estimate total annual groundwater production for each aquifer based on water use reports, estimated exempt use, and other relevant information and compare these production estimates to the MAGs.

**Performance:** Record the water level data and annual change in water levels for each aquifer and compare to the DFCs. Include this information in the District's Annual Report.

**Performance:** Record the total estimated annual production for each aquifer and compare these amounts to the MAG. Include this information in the District's Annual Report.

## 10.2 Plan Elements Developed at the Discretion of the District

### Transportation of Water from the District

The District will seek an accurate accounting of water transported from the District to users outside its boundaries.

**Management Objective:** The District will obtain monthly usage reports from individuals or entities that transport groundwater out of the District and will compile this data into a database.

**Performance:** Record the monthly transporter usage reports and present the results in the District's Annual Report.

This Management Plan is approved by the undersigned on November 14, 2023. This Management Plan takes effect on approval by the Texas Water Development Board.

Gonzales County Underground Water Conservation District  
Board of Directors

\_\_\_\_\_  
Bruce Ticken, President

Kermit Thiele, Vice President

Barry Miller, Secretary

Mark Ainsworth, Director

Mike St. John, Director

**Location of District Office:**

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Website: [www.gcuwcd.org](http://www.gcuwcd.org)

**APPENDIX 1**

**Certified Copy of GCUWCD Resolution  
Adopting Management Plan**

**APPENDIX 2**

**Public Notices for Adoption of  
Management Plan**



**APPENDIX 3**

**Certified Mail Receipts from Surface Water  
Management Entities**

**APPENDIX 4**

**Technical Memorandums February 2020 –  
February 2021**

**APPENDIX 5**

**GAM Run 21-018 MAG**

**APPENDIX 6**

**Part 1**  
**Estimated Historical Groundwater Use**  
**And**  
**2017-2022 State Water Plan Datasets**

**APPENDIX 7**

**Part 2**

**Groundwater Availability Model Report**

**GAM Run ~~18-006~~23-018**

## **APPENDIX 8**

### **References**



## REFERENCES

- G.H. Shafer; 1965, *Groundwater Resources of Gonzales County, Texas*; Texas Water Development Board Report 4
- C.R. Follett; 1966, *Groundwater Resources of Caldwell County, Texas*; Texas Water Development Board Report 12
- TWDB; 2007, *Water for Texas 2007*; Texas Water Development Board Document Number GP-8-1
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- Intra, 2003; *Groundwater Availability Model for the Southern Carrizo-Wilcox Aquifer*; Prepared for the Texas Water Development Board
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- William V. Hoyt; 1959, *Erosional Channel in the Middle Wilcox Near Yoakum, Lavaca County, Texas*; Transactions – Gulf Coast Association of Geological Societies, Volume IX